Cleveland
COMMUNITY COLLEGE

ACADEMIC BULLETIN & STUDENT HANDBOOK

1996 ❖ 1997

NOTE

Cleveland Community College issues this catalog for the purpose of furnishing prospective students and other interested persons with information about the College and its programs. Announcements contained herein are subject to change without notice and may not be regarded in the nature of binding obligations on the College. Efforts will be made to keep changes to a minimum but changes in policy by the State Board of Community Colleges, the Department of Community Colleges, or by local conditions may make some alterations in curriculum, fees, etc., necessary.

VISITORS

Visitors, and in particular, prospective students are always welcome at Cleveland Community College. The Student Services office will provide guide services for groups or individuals between 8:30 a.m. and 3:30 p.m. Monday through Friday. The College is open until 10:00 p.m. Monday through Thursday and until 4:00 p.m. on Friday. Questions about the College and its programs will be answered by someone from the Student Services office.

APPROVED BY

North Carolina State Board of Nursing
North Carolina Department of Veterans Education
Joint Review Committee on Education For Radiologic Technology
20 North Wacker Drive, Suite 900, Chicago, IL 60606-2901
Telephone number 312-704-5300

MEMBER INSTITUTION OF

American Association of Community Colleges
North Carolina Association of Colleges and Universities
North Carolina Department of Community Colleges
Southern Association of Colleges and Schools
Southern Association of Community and Junior Colleges

ACCREDITED BY

Cleveland Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia. Telephone number 404-679-4501) to award associate degrees.

As required for disclosure by G.S. 143-170.1, 10,000 copies of this catalog were printed at a cost of $14,412.82 or $1.44 per copy.

GENERAL INFORMATION

CLEVELAND COMMUNITY COLLEGE
"An Equal Opportunity Educational Institution"

DIRECTORY OF CORRESPONDENCE
Telephone (704) 484-4000

Inquiries will receive prompt attention if addressed to the Administrative Offices below at Cleveland Community College, 137 South Post Road, Shelby, North Carolina 28152.

Academic Programs . . . . . .Vice President, Academic Programs
Administrative Affairs . . . . . .The President
Admission . . . . . .Dean of Enrollment Management
Adult Basic Education . . . . . .Coordinator, Basic Skills Programs
Adult High School Program . . . . . .Coordinator, Basic Skills Programs
Entrance Procedures . . . . . .Dean of Enrollment Management
Evaluation of Credits . . . . . .Dean of Enrollment Management
Financial and Business Affairs . . . . . .Vice President, Business Affairs
GED Exam . . . . . .GED Examiner
Gifts and Bequests . . . . . .The President,
The Executive Director of the
Cleveland Community College Foundation
High School Program . . . . . .Coordinator, Basic Skills Programs
Human Resources Development Program . . . . . .Recruiter, HRD
Industrial Training . . . . . .Vice President, Industry and Community Service
Job Placement Service . . . . . .Director of Job Placement
Non-Credit Courses . . . . . .Dean of Continuing Education
Placement Testing . . . . . .Director of Testing
Registration . . . . . .Dean of Enrollment Management
Student Activities . . . . . .Director of Student Activities
Student Affairs . . . . . .Vice President, Student Services
Student Financial Aid . . . . . .Director of Financial Aid
Transcripts . . . . . .Dean of Enrollment Management
Veterans Affairs . . . . . .Director of Veterans Affairs

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SPRING QUARTER 1996

February 27	Tuesday	Registration
February 29	Thrusday	Classes Begin
February 29	Thrusday	Late Registration
April 8-12	Monday - Friday	Spring Break
May 1	Wednesday	Last Day to Drop and Not Receive a Grade of "F"
May 1	Wednesday	Last Day to Change from Credit to Audit
May 14	Tuesday	Pay Day for Pre-Registration for Summer Quarter
May 22	Wednesday	Quarter Ends
May 23	Thursday	Graduation

SUMMER QUARTER 1996

May 28	Tuesday	Registration
May 30	Thursday	Classes Begin - 1st and 11 Week Session
May 30	Thursday	Late Registration - 1st and 11 Week Session
June 26	Wednesday	Last Day to Drop 1st Session and Not Receive a Grade of "F"
June 26	Wednesday	Last Day to Change from Credit to Audit for 1st Session
July 4 and 5	Thursday and Friday	Holiday (no classes)
July 9	Tuesday	End of 1st Session
July 10	Wednesday	Classes Begin - 2nd Session
July 10	Wednesday	Late Registration - 2nd Session
July 26	Friday	Last Day to Drop 11 Week Session and Not Receive a Grade of "F"
July 26	Friday	Last Day to Change from Credit to Audit for 11 Week Session
August 7	Wednesday	Last Day to Drop 2nd Session and Not Receive a Grade of "F"
August 7	Monday	Last Day to Change from Credit to Audit for 2nd Session
August 7	Wednesday	Pay Day for Pre-Registration for Fall Quarter
August 8	Thursday	Orientation for New Students
August 16	Friday	Quarter Ends
August 16	Friday	Graduation

FALL QUARTER 1996

August 20	Tuesday	Registration
September 3	Tuesday	Classes Begin
September 3	Tuesday	Late Registration
October 15 or 22	Tuesday	Instructor's Conference
October 29	Tuesday	Last Day to Drop and Not Receive a Grade of "F"
October 29	Tuesday	Last Day to Change from Credit to Audit
November 12	Tuesday	Pay Day for Pre-Registration for Winter Quarter
November 19	Tuesday	Quarter Ends

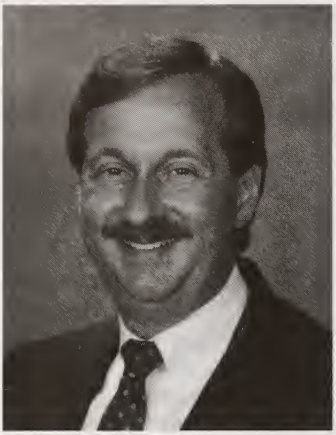
CALENDAR OF EVENTS

WINTER QUARTER 1996-97

November 20	Wednesday	Registration
November 25	Monday	First Day of Classes
November 25	Monday	Late Registration
November 28 & 29	Thursday and Friday	Thanksgiving
December 20	Friday	Winter Break Begins After Classes
January 2	Thursday	Classes Resume
January 20	Monday	Martin Luther King Holiday
February 3	Monday	Last Day to Drop and Not Receive a Grade of "F"
February 3	Monday	Last Day to Change from Credit to Audit
February 17	Monday	Pay Day for Pre-Registration for Spring Quarter
February 24	Monday	Quarter Ends

SPRING QUARTER 1997

February 25	Tuesday	Registration
March 3	Monday	Classes Begin
March 3	Monday	Late Registration
March 31-April 4	Monday - Friday	Spring Break (no classes)
May 2	Friday	Last Day to Drop and Not Receive a Grade of "F"
May 2	Friday	Last Day to Change from Credit to Audit
May 14	Wednesday	Pay Day for Pre-Registration for Summer Quarter
May 23	Friday	Quarter Ends
May 23	Friday	Graduation



Dr. L. Steve Thornburg

MESSAGE FROM THE PRESIDENT

Attending Cleveland Community College is an exciting, challenging and rewarding experience. If you have already decided to attend Cleveland Community College, welcome! If you are still deciding on a college to attend, I invite you to take a close look at Cleveland. This catalog will give you a detailed description of the educational programs available, the course requirements for each program, the academic calendar, and much much more.

Cleveland Community College is home to a dedicated and highly qualified faculty and staff committed to making your learning experiences successful and meaningful. We are here to help you achieve your individual goals, to grow and develop as a individual, to prepare for your future, and to develop a life-long love of learning.

Our faculty and staff look forward to working with you as you prepare for your place in the Twenty-first Century.

L. Steve Thornburg

L. Steve Thornburg, Ed.D.

HISTORY

The 1963 North Carolina General Assembly authorized a system of comprehensive community colleges, technical institutes, industrial education centers, and extension units to be established and placed under the jurisdiction of the State Board of Education.

The Cleveland Unit of Gaston College was established on July 1, 1965, as a result of the vision and effort of many individuals over several years. The Shelby Chamber of Commerce and the County Commissioners worked with the State Board of Education and Gaston College in establishing a unit of the college. Two buildings were rented by the County Commissioners at 118 North Morgan Street to start the school.

On July 11, 1965, James B. Petty was elected director of the Unit. The first classes began in September 1965, in the old Porter Brothers and McBrayer buildings. The number of classes and students has grown rapidly since that date.

On October 2, 1967, a local Board of Trustees was officially appointed and the Extension Unit became Cleveland County Technical Institute, a unit of the Department of Community Colleges of North Carolina.

In July 1969, the institute leased the County Home property at 137 South Post Road for a campus and moved to the new location.

Having secured a grant of $500,000 from the Cleveland County Board of Commissioners and matched by a like amount from the State of North Carolina, architects were commissioned in 1972 to plan a long-range building program on the present campus and the first two buildings for the new campus layout. The first two buildings were completed and placed in use for the Fall Quarter 1974.

In June 1977, the voters of Cleveland County approved a $5,000,000 bond referendum to construct the next two phases of the long-range development plan for the campus.

Construction began in summer 1979 on these buildings to add approximately 100,000 additional square feet of permanent facilities including a new Learning Resources Center, classrooms, shops, laboratories, snack bar, bookstore, and offices. Shop additions were placed in used for Fall Quarter 1980. The main additional construction, known as the Campus Center Building, was placed in use in March 1981. Formal dedication was held October 18, 1981.

On March 3, 1980, the Cleveland County Board of Commissioners voted to concur with the request by the Board of Trustees for a name change of Cleveland County Technical Institute to Cleveland Technical College.

By action of the state legislature, effective July 1, 1987, the College was authorized to become Cleveland Community College and to offer

two-year college transfer programs. The first college transfer students were enrolled in the Fall Quarter 1987.

A Field House building was completed in July 1987 and became part of the College's physical education program.

Contracts were awarded in December 1987 for the construction of a new Student Activities Center building. This building was placed in use for Spring Quarter 1989. A Maintenance building was completed in August 1990. The James Broughton Petty Amphitheater was completed and dedicated April 24, 1991.

The founding president, Dr. James Petty, retired as President Emeritus on July 31, 1990. The College's second president, Dr. L. Steve Thornburg, assumed the presidency on August 1, 1990.

MISSION STATEMENT

Cleveland Community College — established by and for the people of Cleveland County — is a comprehensive, public two-year college and member institution of the North Carolina Community College System. The College's mission is threefold: (1) to help individuals achieve their personal goals and to improve the quality of life in Cleveland County by providing high quality, accessible educational programs and services for life-long learning, (2) to serve as a catalyst for economic development in its service area by responding to the specific educational and training needs of business and industry, and (3) to nurture a learning community that prepares individuals for life in a participatory democracy by strengthening cooperative relationships with businesses, civic organizations, and other educational institutions.

To fulfill its mission, the College is committed to providing:

* access to education through the "open door" admission philosophy
* a student-centered, state-of-the-art educational environment
* excellence in teaching
* a diversified educational program
* flexibility in curriculum development and scheduling
* continuous evaluation of programs and services ensuring relevancy in a changing, dynamic society
* a caring and responsive faculty, administration and staff
* comprehensive student support services
* cultural and self enrichment activities for the College's community
* support for collaborative community initiatives and on-going programs
* a strong marketing and resource development plan

ACCREDITATION

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VISITORS

Visitors need to receive permission from Student Services prior to visiting classrooms, shops, or labs.

CHILDREN ON CAMPUS

Children under sixteen must be accompanied by an adult at all times. Children are not allowed in classrooms or in the gymnasium except for approved events.

NIGHT OFFERINGS

The College offers an extensive night program which includes most of the credit and non-credit courses given in the daytime.

The availability of credit courses at night allows the student who must work while attending school the opportunity to coordinate school activities with employment. A student may enroll for both day and night classes in most programs.

It is possible to complete all work toward a degree or diploma by attending at night. The rate of progress through a program will depend upon the number of courses taken each quarter. A reduced load will require a longer period to complete program requirements.

CANCELLATION OF CLASSES

The College reserves the right to cancel any class, day or night, for which there is insufficient enrollment.

INCLEMENT WEATHER

The College President will make the decision as to whether or not classes will be held during periods of inclement weather. Announcements will be made on local radio and television stations. If day classes are canceled, night classes are automatically canceled.

NOTICE OF COLLEGE REGULATIONS

The College has a genuine interest and concern for the integrity of all students; therefore all regulations found in this catalog and student handbook, and announcements posted on bulletin boards will be followed by all students. Each student is responsible for becoming familiar with these publications and for reading official announcements in order to stay informed of current policies.

NON-DISCRIMINATION POLICY

From its founding, Cleveland Community College's Board of Trustees and staff have recognized the importance of equal opportunity in all phases of the College's operations and have adhered to a policy of non-discrimination on the basis of race, color, sex, age, religion, national origin, physical or mental disability, or other non-relevant factors. This policy continues to apply to both students and employees at all levels of the school's operations. Anyone who believes this policy has been violated may seek satisfaction through the Due Process procedures outlined in this catalog.

AMERICANS WITH DISABILITIES ACT/ SECTION 504 REGULATIONS

Cleveland Community College in compliance with The Americans with Disabilities Act, and Section 504 Regulations does not discriminate and is dedicated to providing equal educational and employment opportunities for qualified adults. The College will make reasonable accommodations in its programs, services and facilities for disabled students and disabled employees who are otherwise qualified. Students with special needs should contact the Student Services Department for assistance such as notetakers, readers, interpreters, etc.

CRIME AWARENESS/CAMPUS SECURITY ACT

Cleveland Community College, in compliance with The Crime Awareness/Campus Security Act, has developed policies and procedures to prevent and report on-and-off-campus crimes. Annually, the College distributes statistical data on reported criminal offenses in the Drug-Free and Crime Awareness Booklet. The booklet is available in the Student Services Department.

DRUG-FREE WORKPLACE POLICY

Cleveland Community College, in compliance with the Omnibus Drug Initiative Act of 1988 (Public Law 100-690) and The Drug-Free

Schools and Communities Act Amendment of 1989 (Public Law 101-226) certifies that the agency has adopted and implemented a program to prevent the unlawful possession, use, or distribution of illicit drugs and alcohol by students and employees. The College will:

1. Annually distribute, in writing, to each student and employee, standards of conduct that clearly prohibit the unlawful possession, use or distribution of illicit drugs and alcohol on campus property or as part of any campus activity.
2. Establish a drug-free awareness program to alert employees and students to the dangers of drug and alcohol abuse and make them aware of available drug counseling programs.
3. Require employees who know of a fellow worker's on-the-job use of drugs or alcohol to notify the employer.
4. Impose sanctions or require rehabilitation of an employee or student who is convicted of campus or workplace-based drug or alcohol abuse.

   Cleveland Community College, in conjunction with CODAP (Cleveland County Community Organization for Drug Abuse Prevention), is engaged in a continuing campaign against substance abuse. A long-standing relationship between the College and CODAP facilitates the flow of information and referral. The program includes educational seminars and public awareness events.

   Communication methods include:

   1. Annual written notification
   2. Information at orientation of new students
   3. Emphasis during convocations
   4. Classroom units in appropriate courses
   5. Drug Awareness Days

   Public access Cable Channel 4 provides TV coverage of in-house as well as community material to support the drug abuse prevention and drug-free workplace programs at Cleveland Community College (i.e., public service announcements, teleconferences).

COMMUNICABLE DISEASE POLICY

Policies regarding diseases at Cleveland Community College are as follows:

Persons infected with a communicable disease will not be excluded from enrollment or restricted in their access to college services or facilities unless medically-based judgments in individual cases establish that exclusion or restriction is necessary to the health and safety of the individual or to the health and safety of other members of the College community.

Any student, College employee (either full-time or part-time) and any employee of contractors or contracted services who knows or has reasonable basis for believing that he or she is infected with a communicable disease has the responsibility of reporting this fact, on a confidential basis, to the appropriate dean or vice president.

Persons who know or have 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 in accordance with such knowledge for the protection of other members of the community.

SEXUAL HARASSMENT

The policy of Cleveland Community College, consistent with its effort to foster an environment of respect for the dignity and worth of all members of the college community, prohibits sexual harassment of students and employees of Cleveland Community College and views sexual harassment as unacceptable conduct which will not be tolerated. The policy, definition of, and complaint procedures can be found in the *Cleveland Community College Policies and Procedures Manual*, and students should contact the Vice President for Student Services for information and procedures.

DUE PROCESS PROCEDURES ON GRIEVANCES

1. A student or employee wishing to appeal a decision affecting his/her status at the college should first attempt to appeal the decision to the instructor or administrator making the decision.
2. If not satisfied, an appeal may be made in writing, within two weeks, to the chairman of the Due Process Committee. The Vice-President for Student Services serves as Chairman for the Due Process Committee. The letter should include a summary of all pertinent dates and information concerning the incident. A hearing will be scheduled within two weeks before the Due Process Committee.
3. Further appeal may be made in writing directly to the President.
4. Final appeal may be made in writing directly to the Chairman of the Board of Trustees. The Board will make a decision based on the petitioner's written appeal and the forwarded recommendations of the President and the Due Process Committee.

PERSISTENCE RATE FOR CURRICULUM PROGRAMS

Information regarding the average rate of persistence for curriculum programs may be located in the office of the Vice President for Student Services.

ADMISSIONS

ADMISSIONS INFORMATION

POLICY AND PROCEDURES

Cleveland Community College operates under an "open door" admissions policy to offer college transfer, occupational and adult education to all persons who are able to profit from instruction. Placement of students in the various programs of instruction includes a special emphasis on career guidance and individual admissions counseling. The objective is to assist the student in establishing realistic goals to assure reasonable success in the particular program of instruction the student desires to pursue.

As part of the admissions process for curriculum students, placement tests may be required. Transcripts of previous education are required, and a personal interview is recommended with each student.

Application for admission forms and detailed information on programs of instruction offered may be secured by writing to: Student Services Office, Cleveland Community College, 137 South Post Road, Shelby, North Carolina 28152 or by calling (704) 484-4099.

ADMISSIONS REQUIREMENTS FOR ALL CURRICULUM PROGRAMS

1. Be at least eighteen years of age, or the applicant's high school class must have graduated. Dual enrollment is allowed for high school students with quarterly permission of the high school principal.
2. High School graduation or its equivalent is required for the Practical Nursing curriculum and the Associate in Arts, Associate in Science, Associate in General Education, Associate in Applied Science degree curriculums and Technical Certificate programs.
3. High School graduation or its equivalent is not required for vocational-diploma programs or vocational certificate programs.
4. **All** students enrolling in a curriculum program must have their high schools send an official transcript (showing graduation date or highest grade completed), or must present an official GED score of 225 or above, or a state-issued GED certificate.
5. Applicants who are applying to the Associate in Arts, Associate in Science, Associate in General Education, Associate in Applied Science, Practical Nurse Education and Technical Certificate programs must pass academic placement tests in English, mathematics, and reading.

Exceptions:

a. Allied Health applicants must satisfy separate, previously-established qualitative and quantitative admission requirements. These applicants are required to meet the academic and technical standards of the Allied Health curriculums.
b. Applicants (excluding Allied Health) who have scored 450 on the verbal section of the SAT are not required to take the English or reading placement test. Applicants who have scored 450 on the mathematics section of the SAT are not required to take the mathematics placement test.
c. Applicants (excluding Allied Health) who have scored 19 on the American College Test are not required to take any placement test.
d. Applicants (excluding Allied Health) who have earned at an accredited college or university at least 12 quarter or 9 semester hours of collegiate-level course work with at least a grade of "C" on each course are not required to take placement tests.
e. Applicants (excluding Allied Health) who transfer in a college-level mathematics course with a "C" or better are not required to take the math placement test. Applicants who transfer in a college-level English course with a "C" or better are not required to take the English or reading placement tests.
f. Applicants (excluding Allied Health) who have successfully completed developmental mathematics, English, or reading courses at an accredited college or university are not required to take Cleveland Community College's placement tests or complete the developmental course(s).
g. Special credit students (those who are not pursuing a degree or vocational diploma) are not required to take placement tests. Some courses do, however, require prerequisites.

If the applicant does not pass the appropriate placement test(s) or meet exceptions as stated above, the applicant must enroll in and successfully complete the College's developmental course(s).

6. On acceptance, a complete physical and dental examination is required for Practical Nursing and Associate Degree Nursing (RN) applicants. A complete physical examination is required for Radiography applicants.
7. Applicants to Allied Health programs must have a personal interview with an admissions office representative and a faculty member after PSB testing.
8. Personal references are required for Allied Health programs.
9. The College reserves the right to refuse admission to a student if it appears that such action is in the best interest of the College

and/or the student. Any student so refused may appeal this action through Due Process.

10. Specific procedures for admission to continuing education programs will be found under that section of this catalog.

ADMISSION PROCEDURE FOR ALL CURRICULUM PROGRAMS

1. Submit completed application form. Social Security number is voluntary and is used for record-keeping purposes.
2. Applicants are strongly encouraged to request a counseling interview in Student Services. The interview is required for Allied Health applicants after PSB testing.
3. Have official transcript of all previous education (high school/ GED and college) mailed to the College prior to the completion of the first quarter. The applicant who is not pursuing a diploma, degree, or technical certificate does not have transcripts sent unless the transcript is needed to prove that course prerequisites have been satisfied.
4. Technical certificate, degree-seeking, and all Allied Health applicants must take placement tests in English, algebra, math and reading or must satisfy the exceptions stated in the Admissions Criteria.
5. Receive a letter of acceptance from the Dean of Enrollment Management prior to the end of the student's first quarter. Allied Health applicants must be accepted prior to Fall Quarter registration.

PROVISIONAL ACCEPTANCE

Applicants for admission who have not submitted high school transcripts and/or GED scores and college transcripts before the beginning of the quarter for which entry is desired are granted provisional acceptance for one academic quarter. All admission requirements must be met within that quarter in order to be eligible to register for the following quarter. There is no provisional acceptance available for Allied Health applicants.

SPECIAL CREDIT CLASSIFICATIONS

Special credit students are those who are enrolled for course credit but not in a curriculum leading to the diploma, certificate, or to the associate degree. Students enrolled in this status will normally be required to meet the prerequisites for the course or to demonstrate a necessary level of competence although they do not have to meet the admission requirements for curriculum programs.

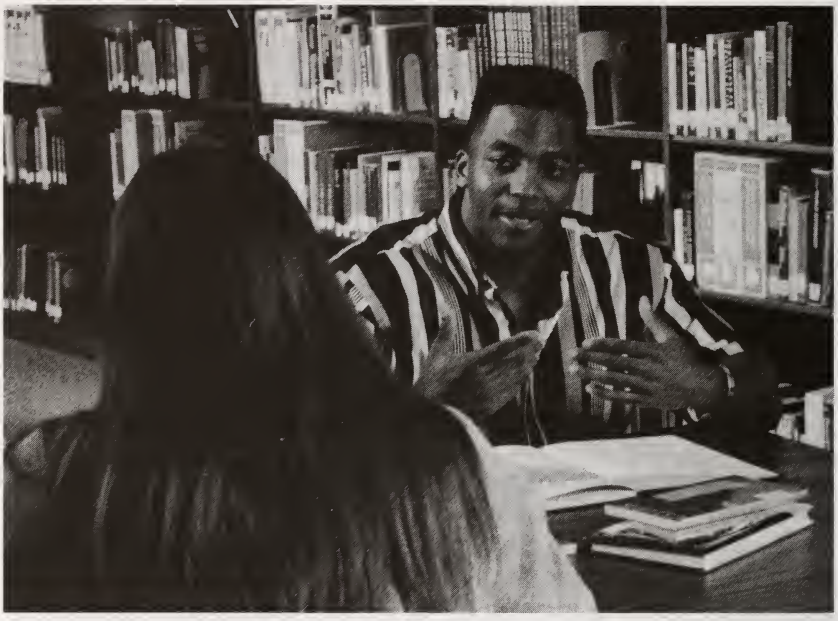
READMISSION

Any student who officially withdraws from the College and later wishes readmission should contact the Student Services offices. Readmission conditions will depend upon the individual circumstances, but generally a student is eligible to return at such a time as an appropriate course schedule can be worked out. Students who wish to reapply to an Allied Health program must see the Dean of Enrollment Management. Students who qualify may be readmitted to the Practical Nurse or the Associate Degree Nursing program only once.

A former student will not be readmitted until all former and current expense obligations to any program or activity under the administrative jurisdiction of the College have been satisfied.

Students who have been academically suspended may enroll again after a one-quarter absence.

Any student who is financially indebted to the College by failure to completely meet any outstanding debt such as the following: bad check, tuition, bookstore, library, activity, graduation, parking fines, or any required payment to the College will not be eligible for readmission nor acquire any transcript until such indebtedness is completely cleared.



ACADEMIC REGULATIONS

DROP-ADD PERIOD

Students may add courses and change their class schedules during the late registration period. Students may drop courses until the last three weeks of a quarter. If a student drops a course within the last three weeks of a quarter, he/she will receive a grade of (F) on the transcript.

All students must complete forms in Student Services to drop or add a course or change a class schedule.

GRADING SYSTEM

Grading the performance of students in course work is the responsibility of individual faculty members.

At the end of each quarter students will be evaluated in each course as follows:

Letter Grade	Numerical Grade	Explanation	Quality Points
A	93-100	Excellent	4 points per qtr./hr.
B	85-92	Good	3 points per qtr./hr.
C	77-84	Average	2 points per qtr./hr.
D	70-76	Below Average	1 point per qtr./hr.
F	Below 70	(No Credit) Non-completion of course requirements	0 point per qtr./hr.
I	Work not completed	Requirements must be completed in next quarter.	0 point per qtr./hr.
W		Official Withdrawal	0 point per qtr./hr.
CE		Credit by Exam	0 point per qtr./hr.
AU		Audit	0 point per qtr./hr.
S	Satisfactory (developmental course only) No Credit		0 point per qtr./hr.
U	Unsatisfactory (developmental courses only) No credit		0 point per qtr./hr.

Any student who receives an "I" may request to negotiate a written contract with the instructor involved. Contracts negotiated between the student and the instructor will specify a definite completion date for the requirements in addition to the types of activities set forth by the instructor to help the student achieve the minimum objectives of the course. If the student does not complete the minimum objectives in the negotiated time period, the student will be dropped from the course and "F" will be entered on the record. Upon completion of the

contract in the specified time, the instructor will notify the registrar to change the "I" to a letter grade. The contract completion date must be within the quarter following receipt of the "I".

QUALITY POINT AVERAGE

The QPA is the most important example of a student's academic progress. The computation of a QPA is shown below as an example to simplify the average. It is determined by dividing the total number of quality points earned by the total number of quarter hours attempted, excluding I, W, CE, S, U, and AU grades. The cumulative QPA is based on all grades while a student is enrolled in a curriculum. The current QPA is an indication of one quarter of work in a curriculum.

EXAMPLE OF COMPUTING THE QPA

Course	Grade	Credit Hrs. Attempted		QP per Credit Hour	Grade Points Earned
BUS 101	A	4	=	x4	16
BUS 115	B	4	=	x3	12
CAS 101	C	4	=	x2	8
BIO 101	D	4	=	x1	4
		16			40

$$\frac{\text{Grade Points}}{\text{Hours Attempted}} = \text{QPA} \qquad \frac{40}{16} = 2.50$$

QUARTERLY DEAN'S AND PRESIDENT'S LISTS

Students who receive a 4.0 grade point average at the end of the quarter and are enrolled full-time will be on the President's List for that quarter. Students who receive a 3.5 to 3.99 grade point average at the end of the quarter and are enrolled full-time will be on the Dean's List for that quarter.

CLASS ATTENDANCE POLICY

Absences are a serious deterrent to good scholarship; it is impossible to receive instruction, obtain knowledge or gain skills when absent. Although there are numerous reasons for absences such as personal illness, death in the family, work conflicts, or unexpected emergencies, all absences will be counted in the 30% maximum. A student, who, during a quarter, incurs in any course an absence in excess of thirty percent (30%) of the class hours for that course may be dropped from the course (without credit).

Absences may be considered legitimate and eligible for makeup at the discretion of the instructor. The student is responsible for seeing the instructor, giving the reason for the absences, and requesting make-up assignment. This is to include students on rotating shift work schedules.

An instructor may refuse admission to class to any student who arrives more than ten minutes late to a class. One-half day's absence will be counted if a student leaves thirty minutes or more early.

The student may appeal any decision under these policies to the Due Process Committee.

ACADEMIC PROGRESS

The following cumulative grade point averages are the minimums which must be attained in order for a student to make reasonable progress toward graduation. A 2.00 grade average is required for graduation.

ASSOCIATE DEGREE PROGRAMS

Cumulative Quarter Hours	Minimum Grade Point Average
0-24	1.20
25-48	1.40
49-72	1.60
73-96	1.80 (2.00 for A.A., A.S., or A.G.E. Degree)
97 or more	2.00

VOCATIONAL DIPLOMA/CERTIFICATE PROGRAMS

0-18	1.25
19-36	1.50
37-54	1.75
55 or more	2.00

Any student who falls below the specified minimum at the end of any quarter will be placed on academic probation for the following quarter.* To be removed from probation the student must attain the appropriate minimum grade point average by the end of the probation quarter; otherwise, the student will be suspended from that program for at least one quarter.

Re-entry in cases of suspended students is handled on an individual basis. Suspended students should contact the Dean of Enrollment Management prior to re-enrolling.

The privilege of appeal is provided to the suspended student. The student is required to write a letter to the Due Process Committee explaining the appeal and must appear before the Committee in person

*In the Radiologic Technology program, every major specialty course must be passed each quarter before the student can enroll for the following quarter. In the ADN (Registered Nursing) and Practical Nursing programs, a grade of C must be made on every major specialty course each quarter before the student can enroll for the following quarter. Students in these programs who are academically ineligible to enroll for the following quarter may reapply for admission. ADN and Practical Nursing students may be re-accepted only once. ADN students must earn a minimum grade of C on all Biology courses.

should the Committee so desire. The appeal may be carried to the Board of Trustees at the student's request.

COURSE REPEAT REGULATIONS

A student may repeat a course taken for credit or audit. A course may be taken a total of three (3) times for credit and/or audit. The appropriate academic dean must justify, in writing, any exception to this policy. The written justification will be placed in the student's academic file in Student Services. Repeated courses will appear on the student's transcript. Each grade will be shown on the transcript, but only the last grade (excluding audits) will be computed into the cumulative grade point average.

[Students accepted into certain curriculum programs — such as Associate Degree Nursing, Practical Nursing, and Radiologic Technology — are precluded from repeating some courses. Regulations are stated in their Curriculum Handbooks.]

AUDIT STUDENTS

A student may elect to audit a course or courses. Those auditing receive no credit and do not have to take any examinations; otherwise participation in class is on the same basis as a credit student. The fee for auditing is the same as the fee for credit. With the proper notification to Student Services and to the appropriate instructor, a student may change a course classification from credit to audit until the last three weeks of the quarter in which he/she is enrolled in the course. Students may change from audit to credit classification for an enrolled course during the add period only.

COURSE SUBSTITUTIONS

Courses may be substituted with approval of the advisor, dean, or registrar.

CREDIT HOURS, CONTACT HOURS, AND COURSE LOAD

Each course listed is followed by a notation on the number of quarter hours credit it carries. Normally, the number of quarter hours earned is based on the number of class, laboratory or shop hours spent under the supervision of the course instructor per week for the quarter.

Usually one (1) quarter hour credit is given for each hour of class per week, for each two hours of laboratory or shop per week.

Contact hours are the number of actual clock hours a student is in attendance during one week.

Students enrolled for 12 or more credit hours are classified as full-time students. Students enrolled in less than 12 credit hours are classified as part-time.

Course load for veterans benefits is as follows: (1) for diploma vocational programs: full-time attendance equals 22 or more contact

hours per week, 3/4 times attendance equals 16-21 contact hours per week, 1/2 time attendance equals 11-15 contact hours per week; (2) for degree programs: full-time attendance equals 9-11 credit hours per quarter, 1/2 time attendance equals 6-8 credit hours per quarter. (For less than 1/2 time attendance in any program the VA does not pay a monthly allowance but will only pay the actual cost of tuition.)

THE OFFICIAL ACADEMIC RECORD (TRANSCRIPT)

A transcript of grades earned each quarter is produced at the end of each quarter. A student may be placed on probation or suspended from a program of study for unsatisfactory work (as explained in the section on Academic Progress).

An official record of all the student's courses, credits, grades, current and cumulative Grade Point Average (transcript) is available at all times in the Department of Student Services. The record may also help determine eligibility for any club activity or club membership that requires specific scholastic standards. Copies of the official record are available to the student upon written request — at no charge.

Records of Progress are kept by Cleveland Community College on all students — including veterans. Progress records are furnished to students (including veterans) at the end of each quarter.

POLICY ON RETENTION AND DISPOSAL OF CURRICULUM RECORDS

The retention and disposal of students' records at Cleveland Community College complies with the General Statutes of North Carolina as well as the North Carolina Community College System guidelines. Official transcripts are secured and kept permanently on file in Student Services in addition to computerized back-up. Other materials such as registration forms, high school and college transcripts are destroyed after five years.

RELEASE OF INFORMATION FROM OFFICIAL STUDENT RECORDS

The College recognizes the responsibility for maintaining records for each student to preserve authentic evidence of the events and actions that are important and can contribute to the efforts to educate the student and to facilitate the achievement of the educational goals of the College. The following general principles and procedures govern the release of information from student official records:

1. Written consent from the student is required before a transcript or information may be released from the official, academic record. Exceptions are:
   a. The Dean of Enrollment Management may release information from official records including reports of academic directory information from student records which include the

following: student's name, address, telephone number, date and place of birth, major field of study, participation in officially recognized activities and sports, dates of enrollment, degrees and awards received, and the most recent previous educational agency or institution attended by the student.

b. The Dean of Enrollment Management may release information pertaining to honor achievements for publications.

2. A hold may be applied to the release of a transcript or other information requested from an official record, for a student who has an overdue indebtedness to the College. Such a student continues to have the right to see the official record upon request.
3. The use and release of information from student official records will be determined as outlined above and in compliance with state and federal legislation relating to such records. Action in situations that may not have been anticipated and/or defined above will at all times be based upon the best knowledge available to the professional staff of the College.

ADVANCED PLACEMENT

Students who have taken advanced placement courses in high school and have made satisfactory scores on the College Board Advanced Placement Examination may receive credit for comparable courses at Cleveland Community College. Students who wish to receive credit for advanced placement courses should contact the Dean of Enrollment Management.

CREDIT BY EXAMINATION

A student may be allowed credit toward graduation for past schooling, work, or military experience through proficiency examinations. The student should confer with the appropriate Department Head for qualifications for these provisions and to be informed of the procedure to follow. The student must register and pay tuition.

A grade symbol of CE (credit by examination) will be awarded for courses for which credit is given on the basis of proficiency examination. The course hours for such courses posted as CE will be computed toward graduation requirements but not for the computation of Honors, nor for computation of overall QPA.

CREDIT FOR EXPERIENTIAL LEARNING

Cleveland Community College endorses the concept of credit for experiential learning in recognition of valid learning experiences to areas which are applicable to the degree/diploma program being completed. Credit is not extended automatically.

To receive credit for experiential learning, a student must submit a written request to the appropriate Dean. The Dean will ask the student to present a letter from the employer, to prepare a written report of

experiences learned, to submit proof that the experiences did occur, and to demonstrate by exam, (if requested) the skills learned. The Dean, in consultation with the Registrar/Director of Admissions, will grant full credit for a comparable course(s) as a "transferred in" course.

The student will receive hours earned on his official transcript — but no grade. The hours will be computed towards graduation requirements but not for the computation of honors nor the overall GPA. There is no charge for receiving this credit.

COOPERATIVE EDUCATION

Cooperative Education (Co-op) is designed to give students enrolled in many programs within the College a chance to work on a job while completing their degrees. This combination of classroom instruction with practical/related work experience provides numerous benefits to participating students.

Eligibility. Any full-time students who are enrolled in programs offering Co-op for academic credit and who have earned a minimum of 12 hours toward their degree requirements are eligible to participate, if they meet the following conditions:

1. Approval of instructor coordinator
2. Have a minimum of 2.0 GPA
3. Approval from program director

Academic Credit. Credit hours for cooperative education work periods are determined by dividing the average number of hours worked per week by 10 and rounding to the nearest whole number. Co-op students may earn from two to twelve quarter hours of Co-op credit toward their degree requirements. (See individual curriculum programs for number of elective hours available.)

WITHDRAWAL

Students desiring withdrawal from the College should contact the Office of Student Services to complete necessary forms and procedures for official withdrawal. Withdrawal with a grade W will be allowed except during the final three weeks of a quarter. After that point a grade of F will be assigned.

TRANSFER CREDIT TO CLEVELAND COMMUNITY COLLEGE

Cleveland Community College permits admission with transfer credit for students from member institutions of the North Carolina Department of Community Colleges and other accredited institutions.* Students must have official transcripts sent to Cleveland for evaluation prior to the end of the first quarter in which they are enrolled. Courses accepted for transfer credit must closely parallel those for which credit is sought at the College. Evaluation is made by the Registrar and appropriate academic Dean. Quality points do not transfer. Credit is given to accepted courses in which a C or better was made. Transfer

hours earned are converted from semester hours to quarter hours as necessary.

For degree completion in associate degree programs, at least 23 quarter hours must be earned at Cleveland. For a vocational diploma or certificate completion, at least 12 quarter hours must be earned at Cleveland.

*Provided the transfer student was not suspended from the last institution attended for behavioral problems.

NOTIFICATION OF TRANSFER CREDIT

All transfer students will receive, prior to the completion of their first quarter, an "Evaluation of Transfer Credit" form denoting hours and courses accepted for transfer credit.

CLEP

Credit may be allowed for up to 31 quarter hours of college work based on appropriate scores on the CLEP General Examinations when appropriate to the student's program of study. CLEP subject examinations are evaluated individually if appropriate to the program of study.

MILITARY EXPERIENCE

Military training and experience may earn quarter hour credit as determined by the Registrar and appropriate department head or lead instructor. Course credit will be given if the learning experience or training closely resembles the student's program of study.

SERVICEMEMBERS OPPORTUNITY COLLEGES

Cleveland Community College has been designated as a member of the Servicemembers Opportunity Colleges (SOC) General Registry — a network of institutions sponsored by the American Association of Community Colleges. Servicemembers are encouraged to take college level courses offered by accredited institutions and made available to military personnel through SOC. Records are evaluated, files are retained, counseling is provided, and recognition is given for learning through noninstitutional sources when appropriate. Transcripts must be sent to the Dean of Enrollment Management directly from the institution offering the course.

TRANSFER OF CREDIT FROM A.A. AND A.S. DEGREE PROGRAMS TO OTHER COLLEGES AND UNIVERSITIES

A student who desires to transfer course work from Cleveland Community College's A.A. and A.S. degree programs to a four-year college or university should contact a transfer counselor in Student Services. The counselor will assist the student in the transfer process.

Four-year college and university academic bulletins and transfer agreements are on file in Student Services.

TRANSFER CREDIT TO OTHER COLLEGES FROM TECHNICAL AND GENERAL EDUCATION PROGRAMS

Even though the technical degree programs are not planned as transfer programs, an increasing number of schools and colleges are accepting, for credit toward the bachelor's degree, courses completed in a technical program or in the general education program at Cleveland Community College. Most of these colleges consider each applicant and his/her record individually, and the courses for which credit is sought must be similar to the course(s) offered by that institution. Some colleges give credit on the basis of examinations. Many colleges give full credit for the Associate in Applied Science degree or Associate in General Education degree toward a Bachelor of Arts, Bachelor of Science, or Bachelor of Technology.

Some colleges will consider some transfer courses on an individual evaluation basis. Any student interested in pursuing that possibility should talk with the department chairman of the planned major field at the particular college to which transfer is desired.

TRANSFER RESPONSIBILITY

The College will cooperate with each student in planning a transfer program. However, it is the responsibility of the student to determine what courses and credit will transfer to the receiving institution.

The acceptance of courses taken at Cleveland Community College is determined solely by the institution to which the student transfers.

The student planning to transfer will have less difficulty if he/she will follow these steps:

1. Decide early which senior college to attend. Contact the college/university for recommendations concerning appropriate courses.
2. Obtain a current copy of the catalog of that college and study its entrance requirements and general education courses.
3. Confer with a transfer counselor in Student Services and with your academic advisor.
4. Complete a transcript release form in Student Services.

Changes in the student's major field of study or in the choice of a senior institution may result in transfer problems. Such changes should be made only after careful consultation with an advisor and Student Services counselor.

TRANSFER OF CREDIT WITHIN CLEVELAND COMMUNITY COLLEGE

Credit earned in any institutional degree program may be credited toward another degree or diploma program upon evaluation by the Dean of Enrollment Management. Credits earned in a diploma program

are not transferable to an associate degree program but may be credited toward a second diploma major. If graduation requirements change during the time a student is enrolled, the student may elect to satisfy the requirements in effect at the time of the original enrollment or the new requirements.

Any student who is currently enrolled or has graduated from a curriculum program of the College and wishes to transfer to another curriculum program must follow these procedures:

1. Go to Student Services and update his/her application on file, stating the new curriculum and quarter of entrance.
2. Complete a Student Data Change form in Student Services.
3. Meet the admission requirements for the desired program as stated in the College catalog.

Applicants will receive notification of admission by letter from the Dean of Enrollment Management along with an "Evaluation of Transfer Credit" form denoting hours for which credit will be given.

REGISTRATION

At registration, students will be assigned class schedules, pay fees, and purchase books. Each student is expected to register and begin classes on schedule. A student is not registered and cannot attend classes until tuition and fees are paid in the Business Office.

GRADUATION HONORS

To graduate with High Honors a student must earn a QPA of 3.8 - 4.0 in courses presented for graduation. To graduate with Honors a student must earn a QPA of 3.5 - 3.79 in all courses presented for graduation. To qualify for either honor, a student must not have received any grade lower than a C in the program being completed. If a student made a D or F in a course that was later repeated, the student is disqualified from graduating with honors.

REQUIREMENTS FOR GRADUATION

The following are established as minimum requirements for graduation from curriculum programs.

1. Complete course requirements outlined by the curriculum pursued, and earn at least a 2.0 QPA in courses presented for graduation.
2. Complete not less than 96 credit hours for the Associate in Arts, Associate in Science, or Associate in General Education degree, 105-154 credit hours for the Associate in Applied Science degree, 66-79 credit hours for a vocational diploma.
3. Meet with assigned faculty advisor no later than the third (3rd) week of the quarter in which graduation requirements are expected to be completed and complete a checklist which is to be submitted to the Registrar. The Registrar will make a complete check of the student's record and either notify the student

that everything is in order or notify the student's academic advisor everything is **not** in order.

4. A graduation fee is to be paid by the student before receiving cap, gown, or diploma.
5. Fulfill all financial obligations to the College and secure clearance from the Library.
6. Be present for graduation exercises. Exceptions to this requirement, in case of unavoidable absences, may only be granted by the Vice President for Student Services.
7. All prospective graduates from associate degree programs must complete at least 23 quarter hours at the College before graduation. Vocational and certificate graduates must complete at least 12 hours at the College before graduation.

STUDENT SERVICES

The *purpose* of the Student Services department at Cleveland Community College is to support the instructional programs and to promote total student development by offering a program of services for students from pre-admission to successful job placement or college transfer.

The basic *objectives* of the Student Services department:

1. To interpret the College's objectives, opportunities, and policies to prospective and enrolled students.
2. To assist the students in selecting, entering, progressing, and completing a program of study.
3. To provide a professional, competent, staff to assist students with academic, vocational, personal, social and economic problems.
4. To record, maintain, and make available to proper persons, information regarding students.
5. To provide for the continuous evaluation and improvement of all Student Services.
6. To provide the following student services' functions to best support and contribute to the total student personnel program: recruitment, admissions, registration, orientation, career guidance and counseling, academic placement testing, academic/personal counseling, financial aid and veterans' affairs, alumni activities, health information, extra-curricular activities, foreign students and transfer advising, handicapped student assistance, job placement, maintenance and security of student records, and student follow-up/tracking information.

GENERAL INFORMATION

Student Services is generally open from 8:00 AM to 8:00 PM Monday through Thursday and from 8:00 AM to 4:00 PM on Fridays. Services are offered to all day and night, part-time and full-time students. A full program of student activities is offered. All students (including those off-campus) are encouraged to participate in all appropriate services.

STUDENT'S ROLE AND PARTICIPATION IN INSTITUTIONAL DECISION-MAKING

All students are members of the Student Government Association. The president of the Student Government Association represents the student body on the Board of Trustees of the College as a non-voting member. The Student Government Association president is encouraged to offer comments and suggestions to the Board on institutional

decision making. The Student Government Association president is also a member of the College Admissions Committee.

Students are also represented on other College committees, organizations, and clubs, such as:

Due Process Committee
Financial Aid Committee
Library Advisory Committee
Student Clubs

PERSONAL COUNSELING AND ACADEMIC ADVISING

Counselors are available in Student Services to assist all students with educational and vocational problems and concerns. Students are assigned academic advisors to assist in planning academic programs and in developing the course schedule each quarter. Students in need of personal counseling will be referred to appropriate agencies.

ACADEMIC SUPPORT CENTER

The Academic Support Center is provided by the college to help each student successfully complete a program of instruction suited to his or her ability level and career goals. The Center provides services for students in two main areas, making informed career choices, and achieving the skills necessary to meet their academic and career goals. All students, employees, and residents of Cleveland County may find assistance in choosing a suitable career by making an appointment for career testing and guidance to determine interest and aptitude for a variety of careers. The career services are free. All students of the college can receive help in the Academic Support Center by academic placement testing to ensure correct placement in college courses, and by taking pre-curriculum courses to help acquire the skills necessary to enter college level courses. The Center also may provide individual help for students needing additional instructional support. In addition to the services described above, the Center maintains a multi-media computer lab providing alternate delivery methods of testing and instruction.

JOB PLACEMENT

Cleveland Community College maintains a placement service to help interested students and alumni find employment. Cleveland Community College and the North Carolina Employment Security Commission (Shelby) participate in a cooperative agreement whereby an ESC representative maintains an office in the Student Services Department. The ESC representative is responsible for helping students find part-time and full-time employment.

STUDENT HOUSING

The College does not have dormitory accommodations available. Any student who needs to locate housing in Shelby should contact the local Chamber of Commerce who will provide a list of local realtors, a local map and other newcomer information.

ORIENTATION

All part-time and full-time new students and families are strongly encouraged to participate in a free quarterly orientation program in order to promote adjustment to the educational programs and services of the College.

ALUMNI ASSOCIATION

Each Cleveland Community College student receiving a diploma or degree is considered a member of the Alumni Association. The aim of the association is to keep former students informed of and involved in the College's growth, activities, and services. Alumni are encouraged to take advantage of job placement services. The Director of Admissions is sponsor for the Alumni Association Committee.

STUDENT HEALTH

The College does not provide medical, hospital, or surgical services nor does the College assume responsibility for injuries incurred by accidents when taking part in intramural sports, class or student activities. Medical services are available at the emergency room of Cleveland Memorial Hospital. A doctor is on duty 24 hours a day in the emergency room. A first-aid kit is available at the visitor reception area. Student Services department provides programs on health education to interested students and staff. The College certifies and promotes a drug-free workplace and adheres to a communicable disease policy. Smoking is *not allowed* in any campus building.

STUDENT ACTIVITIES

Cleveland Community College is interested in developing students to their fullest potential. The College strives to offer the utmost in academics as well as social, cultural and physical activities to help build a well-rounded person. Student activities offer every student an opportunity to make new friends and to help the academic community at large. All student activities are assisted and supported by the Student Government Association.

A number of clubs have been organized, and faculty and staff serve as advisors. No student will be excluded from membership in an organization because of race, creed, religion, sex, age, color, disability, or national origin. Dances and other special activities such as "Spring Fest, Beach Blast, Fall Fling, Halloween Contest, Receptions, Intramural Softball Games, Intramural Volleyball and Basketball

games" are sponsored periodically by the SGA for the enjoyment of all Cleveland Community College students. Students interested in forming new organizations should consult the SGA President and SGA advisor for assistance.

The Director of Student Activities is responsible for supervising the student activities program. Initial requests and plans come from the student body through the Student Government Association. Every effort is made, within the limited scope of financing and facilities, to conduct a comprehensive program of activities. Clubs and organizations are free to operate their organizations as they choose within the legal framework of college rules, and local and state laws. The SGA budget must be approved by the SGA President and college administration.

ATHLETICS AND SPORTS

Intramural sports are encouraged and provided for students by the College. These include basketball, softball, volleyball, tennis, chess, checkers, and horseshoes. The College does not participate in intercollegiate sports.

STUDENT PUBLICATIONS

Cleveland Community College encourages students to participate in the production of student publications. The College supports the student's right to express himself/herself through journalist endeavors which can contribute to an atmosphere of responsible discussion. Roles of student publications are to allow for student expression regarding the College — its mission, policies, programs, services, faculty, staff, facilities, student activities and events — and to keep students abreast of current events, rules, regulations.

Cleveland Links - A student newsletter that is published monthly by the Student Government Association.

STUDENT CLUBS

Student clubs may be organized with the approval of the SGA and the Vice President for Student Services. These may be related to the vocational goals of the students, or may serve as civic organizations or special interest areas of the students.

LeClub de Espirit is comprised of students within the Fashion Merchandising and Marketing Curriculum.

Gamma Beta Phi Honor Society is a national honor and service organization which emphasizes service, character, and scholarship. Memberships, based on a 3.50 grade point average and completion of 15 quarter hours, are extended twice a year.

Phi Beta Lambda is a national organization for students in the business curriculums. The purpose of PBL is to develop vocational competencies for business occupations.

Slightly Off Center Stage Players is made up of those students interested in dramatic productions.

Black Awareness Club promotes knowledge and appreciation of black history.

Criminal Justice Club promotes a better understanding of the criminal justice system through service and education and bridges the gap between the community and the system.

Media in Motion Club fosters interest and enthusiasm in the field of Communications Technology by providing professional and educational activities for its members.

Lamplighters is a club that promotes the high standards and ideals of the nursing profession.

Rotaract Club is a co-ed organization whose members engage in community and international service projects. The club is sponsored by the Shelby Rotary Club.

Mu Epsilon Delta is comprised of students within the Medical Office Technology Curriculum. The club's purpose is to broaden the students' awareness and interest in the medical environment by engaging in educational and civic projects.

Students in Free Enterprise is a club which promotes a better understanding of and a greater appreciation for the free enterprise system. The club sponsors community projects which are presented at regional and national competitions.

STUDENT ACTIVITIES CENTER

The Student Activities Center is available to all currently-enrolled students for relaxation, recreation or interaction with other students or involvement with extra-curricular activities. The area is open from 8:00 a.m. - 10:00 p.m. Monday through Thursday and 8:00 a.m. - 4:00 p.m. on Friday. The Center comprises (1) student lounge, (2) weight room, (3) student lockers, and showers, (4) walking track, (5) meeting rooms, (6) holding kitchen, (7) classrooms, (8) art studio, (9) SGA office, (10) Gamma Beta Phi office, (11) restrooms, (12) gymnasium. Only Cleveland Community College students are permitted to use the gym and weight room. Adults may use the walking track.

SNACK BAR

A variety of hot and cold foods are available in the campus Snack Bar. Hours of operation are from 7:00 a.m. - 1:30 p.m. and 2:30 p.m. - 9:00 p.m. Monday - Thursday, and Friday 7:00 a.m. - 2:00 p.m.

STUDENT GOVERNMENT ASSOCIATION

All students are members of the Student Government Association. The Student Government Association at Cleveland Community College takes an active part in life at school. The purpose of this organization is:

1. To represent the individual thinking, the integrity, the ideas, and the interests of the students within Cleveland Community College.
2. To encourage cooperation among students, faculty, and administration.
3. To sponsor activities or endeavors that will be of benefit to the student body and Cleveland Community College.
4. To do all things necessary to promote the welfare of the student body.

Officers of the Cleveland Community College SGA may attend the North Carolina Comprehensive Community College Student Government Association meetings. This enables the students to meet new people and exchange ideas from different colleges for the enhancement of their respective organizations. The *SGA Constitution and By-Laws* are available in Student Services.

STUDENT BEHAVIOR

Student Rights and Responsibilities

The rights of students as citizens are acknowledged and reaffirmed. The College recognizes the right of an enrolled student to receive a full opportunity to learn and develop, unfettered by any and all obstacles not conducive to a sound, fundamental educational program. To this end, the College recognizes, declares, and vests certain rights in each student enrolled at the College.

Students are responsible for reading and understanding the College Catalog and Student Handbook. Students are responsible for acting as responsible adults for proper completion of their academic program, for familiarity with all requirements of the curriculum from which they intend to graduate, for maintaining the grade average required and at all times knowing their academic standing, and for meeting all other degree requirements. Their advisors will counsel them, but the final responsibility remains with the student. Students are required to keep the Office of Student Services up to date on their current addresses, telephone numbers, and name changes.

Student Code of Conduct and Jurisdiction of Judicial Bodies Disciplinary Responsibilities of College Officials, Disciplinary Procedures, and Appeal

It is expected that students will conduct themselves as responsible adults at all times. The College has an inherent responsibility to maintain order on its campus; therefore, students may be suspended or dismissed by the appropriate Vice President for behavior deemed incompatible with the mission, the regulation or responsibility of the College. Disruptive classroom behavior, destruction of school property, stealing, cheating, gambling, use of profane language, engaging in personal combat, possession of dangerous weapons, or the possession and/or use of alcoholic beverages and/or the use of any drug as defined under the North Carolina Controlled Substance Act. G.S. 90-89 through G.S. 90-94 in or on any part of the Cleveland Community College campus will not be tolerated. Any violation of these regulations will result in expulsion from the College. In addition, any infraction which is a violation of North Carolina law will be turned over to local authorities.

STUDENTS OF THE QUARTER

Each quarter the faculty selects one outstanding student as the "Student of the Quarter" for each academic division — College Transfer, Technical, and Vocational. These students receive a certificate, and local newspapers publish their pictures.

WHO'S WHO AMONG STUDENTS IN AMERICAN JUNIOR COLLEGES

Each academic year, the faculty selects students for inclusion in the nationally-recognized Who's Who Among Students in American Junior Colleges. These students are selected because of their outstanding performance in academics, extracurricular activities, or community service.

OUTSTANDING STUDENT AWARDS

These awards are made to graduating students who have distinguished themselves by being most outstanding in terms of scholastic achievement, performance and maturity of purpose during the program of instruction at the College. Students may be recognized for each diploma and degree program.

FINANCIAL INFORMATION

Cleveland Community College operates on the quarter system. Each quarter is eleven weeks in length. Students pursuing a program of study are required to register and pay all fees at the beginning of each quarter. A student is not registered until tuition and fees are paid in the Business Office. Every effort is made to keep the student's expenses at a minimum. Tuition cost is set by the State Board of Community Colleges and is subject to change.

TUITION

Current rates for all college transfer, general education, technical or vocational curriculum students.*

North Carolina Students:	
14 or more credit hours	**185.50**
Less than 14 credit hours	**(per quarter hour) 13.25**
Out-of-State Students:	
14 or more credit hours	**1505.00**
Less than 14 credit hours	**(per quarter hour) 107.50**

*If accident insurance is desired, contact the Division of Business Affairs for up-to-date information.

FINANCIAL RESPONSIBILITY

Students are not permitted to default in the payment of fees, fines, loans, or other financial obligations due the school. All tuition, fees, and other expenses must be paid prior to entering class. Any deviation from this policy must be approved by the President of the College.

RESIDENCE STATUS FOR TUITION PAYMENT

1. General Statute 116-143.1(b) passed by the 1973 General Assembly of North Carolina reads:
   "To qualify for in-state tuition a legal resident must have maintained his domicile in North Carolina for at least 12 months immediately prior to his classification as resident for tuition purposes. In order to be eligible for such classification, the individual must establish that his or her presence in the State during such twelve-month period was for the purposes of maintaining bona fide domicile rather than for purposes of mere temporary residence incident to enrollment in an institution of higher education; further (1) if the parents (or court-appointed legal guardian) of

the individual seeking resident classification are (is) bona fide domiciliaries of this State, the fact shall be prima facie evidence of domiciliary status of the individual applicant and (2) if such parents or guardian are not bona fide domiciliaries of this State, this fact shall be prima facie evidence of non-domiciliary status of the individual."

2. Regulations concerning the classification of students by residence for purposes of applicable tuition differentials, are set forth in detail in *A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes.* Each enrolled student is responsible for the contents of that Manual, which is the controlling administrative statement of policy on this subject. Copies of the Manual are available on request at Student Services.

BOOKS, SUPPLIES, AND COLLEGE STORE

A student is required to buy the necessary textbooks and supplies. An average cost of books will vary from $60 to $150 per quarter, depending on the curriculum and number of courses taken. Books and supplies are sold during regular bookstore hours.

STUDENT INSURANCE

Certain risks are inherent in any work involving regular contact with mechanical and electrical equipment. While stringent precautions will be taken to insure safety, it is felt to be in the best interest of all students to provide some measure of insurance protection.

A group policy, providing the desired insurance protection, is available through the Business Office. The cost of the insurance is approximately $9.00 per year. If you are not already covered by accident insurance we strongly recommend this policy to you.

Any accident, regardless of how minor it may be, must be reported to the instructor in the area. The policy is limited to coverage, both in the time period covered and the amounts provided for each accident. Information concerning the policy and coverage is distributed during each registration period and is also available in Student Services.

Personal liability insurance is required of all Practical Nursing, ADN and Radiologic Technology students and is strongly recommended for all students in physical education classes. The cost of coverage is $15.00 per year.

GRADUATION FEE

All students eligible to graduate from a curriculum program will be required to pay a graduation fee prior to graduation.

STUDENT ACTIVITY FEE

All students enrolled for seven or more credit hours are required to pay a student activity fee of $10.00 each Fall and $9.00 for the Winter and Spring quarters. Students enrolled for less for seven credit hours will pay a student activity fee of $5.00 for the Fall, Winter, and Spring quarters. The Student Government Association budgets this money yearly with the approval of the Administration. Included in the budgeting are the following items: Cleveland Connection magazine, fall and spring festivals, SGA dues and conventions, ID cards, parking stickers, and other student related activities.

TUITION REFUNDS

1. A refund shall not be made except under the following circumstances:
   A. 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 point 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 fourth in Part (1) (A) of this paragraph apply. For contact hour classes 10 calendar days from the first day of the class(es) is the determination date.
   C. A pre-registered curriculum student who officially withdraws from the college prior to the first day of the college's academic quarter will be eligible for a 100 percent tuition refund, if requested.
   D. A pre-registered student who officially withdraws from a curriculum class prior to the day the class begins will be eligible for a 100 percent tuition refund, if requested.

   Reminder: Since a curriculum student is charged hour for hour up to 14 credit hours, a refund would not be applicable unless the credit hours enrolled were reduced to less than 14.

PARKING (MOTOR VEHICLE AND TRAFFIC REGULATIONS FOR CLEVELAND COMMUNITY COLLEGE)

I. General Information

The control and enforcement of motor vehicle conduct is necessary both for the safety of the individual and the efficient operation of Cleveland Community College.

A. In the following information the term campus shall refer to that property operated by Cleveland Community College and those other properties when used by Cleveland for educational purposes.
B. The term motor vehicle shall include all vehicles which are covered by the motor vehicle laws of North Carolina.
C. No student with an outstanding traffic infraction may receive end-of-quarter grades until receiving clearance from the Campus Security Committee and paying all fines.
D. Student parking is in the large lot on the fairground side of the campus.

II. Registration of Vehicles
A. All faculty, staff and students, part-time and full-time, shall be required to have their vehicle or vehicles registered by the Business Office and to affix an appropriate decal on the driver's side of the rear window (inside). There shall be no charge to register vehicles.
B. Campus visitors, law enforcement vehicles, and service vehicles are specifically exempted from registering their vehicles. However they are expected to obey all other regulations.

III. Regulations
A. It shall be the responsibility of the Campus Security Committee to recommend traffic regulations to the President of the College for presentation to the Board of Trustees for approval.
B. Enforcement of regulations shall be administered by the Campus Security Committee.
C. Those students assessed fines shall pay those to the Campus Business Office. (For redress, see part IV.)
D. The following shall be considered violations of campus motor vehicle regulations and the corresponding fine:
1. Vehicle showing no registration.....$5.00
2. Parking in improper area.....3.00
3. Parking by backing vehicle into area.....1.00
4. Double parking or blocking a legally parked vehicle 3.00
5. Speeding in excess of 10 m.p.h. 3.00
6. Failure to yield right-of-way to pedestrian 3.00
7. Reckless driving 5.00
E. This College reserves the right to remove any illegally parked vehicle by a College vehicle, privately owned wrecker, or other means. The violator shall be responsible for any tow charge in addition to the violation fee.
F. The registered operator is responsible for the use of the vehicle.

IV. Redress
   A. A committee shall be made to exist which will be known as the Campus Security and Traffic Committee.
   B. It shall be the responsibility of this committee to determine final disposition of fines for which anyone may feel that he/she was unnecessarily charged.
   C. This committee shall be composed of the following:
      1. One member of the Campus Security Committee, not the chairman.
      2. One member of the Campus Safety Committee, not the chairman.
      3. One member of the Student Government Association, not the president.

V. The Campus Security Committee shall have power to recommend changes in the above regulations provided the change is properly communicated to the administration, faculty, staff, and students of Cleveland Community College.

FINANCIAL AID INFORMATION

The fundamental process of the Financial Aid Program at Cleveland Community College is to provide financial assistance, based on financial need, to students who normally could not attend post-secondary school without aid. Financial aid at Cleveland is based on a needs analysis. The needs analysis form used by Cleveland is the Application for Federal Student Aid. This form, located in the Financial Aid Office, must be completed by students applying for financial aid. For aid other than the Pell Grant, additional forms may be required.

In accordance with the Omnibus Drug Initiative Act of 1988, as a precondition to receive federally funded financial aid (e.g., Pell Grant, Campus Based Programs), each student receiving assistance must certify that he or she will not engage in the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance during the period of enrollment covered by a grant. If convicted of a drug related Federal or State offense, the institution must withhold any further Title IV payments to the student until determined by the appropriate authority is made regarding fraud on the part of the student.

— Financial aid at Cleveland Community College consists of scholarships, grants and work study or any combination of these as determined by the Financial Aid Office.
— The student or family of the student has the primary responsibility for post-secondary educational cost. Financial aid awarded by the College is based on the need of the student to supplement the family or student contributions.

— Recipients of financial aid who withdraw from the College must personally notify the Financial Aid Office of this action. Also, any changes in name, marital status, address, academic program, or enrollment status must be reported to the Financial Aid Office.
— The primary purpose of financial aid is to assist the student in receiving an education. To be assured of continued financial aid, students must maintain "satisfactory progress" in accordance with the College's grading policy, listed in the catalog under "Academic Progress".
— Any commitment of federal funds (Pell Grant, SEOG, CWS, NCSIG) is tentative and contingent upon subsequent Congressional appropriation and actual receipt of funds by the College.
— The Financial Aid Office reserves the right, on behalf of the College, to review and adjust or cancel an award any time there is indication of changes in financial status, academic program, good academic standing, or failure to observe reasonable standards of conduct.
— Recipients of financial aid from the College are to notify the Financial Aid Office of any other financial aid extended to them from sources outside the College prior to acceptance of outside aid.
— Most student aid is based on full-time status; 9-11 credit hours for 3/4 time status, and 6-8 credit hours for 1/2 time status. Student aid is not usually paid for less than 1/2 enrollment.

APPLICATION PROCESS

All applicants for financial aid at Cleveland Community College should have completed and mailed to the Processing Center the Application for Federal Student Aid or any other standard needs analysis form approved by the College. All students shall apply for the Pell Grant if they wish to be considered for other federal, state, or institutional financial aid that is based on need. Students are encouraged to complete the application process as soon as income taxes and reports are filed or the source of income has been verified. In addition to verification of income, whether taxable or non-taxable, students will be requested to verify or document federal income taxes paid, number in household, number attending post-secondary institutions. Students should mail the Student Aid application on or before the first of July to insure completion of the application process prior to Fall Quarter. Students completing and mailing the Student Aid application on the day of registration are not awarded their grant until the application process is complete.

SATISFACTORY PROGRESS STANDARDS FOR FINANCIAL AID

Introduction

The Higher Education Act of 1965, as amended by Congress in 1980, mandates institutions of higher education to establish minimum standards of **"Satisfactory Progress"** for students receiving financial aid. For the purpose of maintaining a consistent policy for all students receiving financial aid administered by the College's Financial Aid Office, these standards are applicable to all financial aid programs including all Federally sponsored Title IV programs. These standards may be amended to comply with federal regulations, Institution, and program requirements as applicable.

Satisfactory Progress Defined

To initially receive or continue to receive financial aid, a student must demonstrate BOTH A QUALITATIVE AND QUANTITATIVE STANDARD OF satisfactory progress as defined below:

1. Satisfactory progress for Financial Aid at Cleveland Community College is defined as any student in good academic standing, not on academic probation, and who has a G.P.A. at or above the required standards as established by the college catalog. (Qualitative)
2. Continuing students applying for financial assistance (Title IV funds) which include (PELL GRANT, SUPPLEMENTAL EDUCATION OPPORTUNITY GRANT, COLLEGE WORK STUDY AND STATE STUDENT INCENTIVE GRANT) will be evaluated each quarter to determine, by the Standards of Satisfactory Progress, whether the student has successfully completed the minimum percentage of work toward his/her objective, degree, or certificate. Other students entered during the same academic year mentioned above will be evaluated by the FAO the entering quarter. (Quantitative)
3. The maximum time frame a full-time student would have to complete his/her course should be:

   3 years or 12 quarters for technical and general education programs and transfer programs; 1½ years or 6 quarters for vocational programs.

   A half-time or three-quarter time student must satisfactorily complete the appropriate fractional hours of the maximum time frame established for completion of his/her course work.

   Students who CHANGE FROM ONE CURRICULUM PROGRAM TO ANOTHER are subject to the maximum time frame mentioned in the above paragraph.
4. Students registered under the Special Credit Programs are NOT ELIGIBLE FOR THE TITLE IV PROGRAM.

If a curriculum student is placed on academic probation or suspension for the first time and applies for admission as a "new" student in another program, the financial aid award is terminated. The student may reestablish eligibility for the federal student aid funds after attending one or more quarters on their own and removing the academic probation.

Re-entry status is determined by internal evaluation and transfer of credits. After the re-entry quarter, the first definition of satisfactory progress applies.

TYPES OF FINANCIAL ASSISTANCE

All Financial Aid programs fall into one of two categories: grants or employment. Grants and scholarships are outright gifts of money and do not have to be repaid. Employment allows the student to work and earn needed money.

Application procedures and eligibility requirements, as stated in the academic bulletin, apply for any program. Students having a four-year degree may apply for any program except Pell Grant and SEOG.

GRANTS

Pell Grant

All financial aid applicants are required to apply for the Pell Grant. The Pell Grant is a federal student aid entitlement program which provides a foundation of financial assistance to which other forms of aid may be added.

The U.S. Department of Education determines the student's eligibility for financial aid based on formula developed annually and reviewed by Congress. This formula is applied consistently to all applicants and takes into account income, assets, family size, etc. The formula uses the information provided on the application to produce an eligibility index number which determines the amount of aid to be received. The Student Aid Report (SAR) will be mailed directly to the student approximately four to six weeks after submitting the application. The SAR should be brought immediately to the Financial Aid Office.

Supplemental Education Opportunity Grant (SEOG)

SEOG is also a federal program. However, it is not an entitlement program as is the Pell Grant. Recipients are determined by the Director of Financial Aid who awards the grant according to the exceptional financial need of the student. The amount of the award is determined according to the family income and the family's ability to assist the student, and quarterly registration.

North Carolina Student Incentive Grant (NCSIG)

These grants are available in legal North Carolina residents who are full-time students in good standing with Cleveland Community

College and who have demonstrated need. Amounts are determined by the student's financial need in relation to available resources and the cost of education. Grants may range up to $2000 per academic year, but may not exceed one-half the cost of unmet need. Repayment is not required.

Job Training Partnership Act (JTPA)

JTPA is a federally funded, skill development program for economically disadvantaged students. Application and recipient selection is processed through the Isothermal Planning Commission.

EMPLOYMENT

College Work-Study Program (CWS)

A work-study program is awarded to students (enrolled at least half-time) demonstrating an unmet need beyond Pell Grant. This program allows students to earn a portion of the cost of their education. Work-study participants will work a supervised schedule, usually 8-12 hours per week. Job descriptions outline the responsibilities of the assigned work-study.

SCHOLARSHIP PROGRAMS

Scholarship recipients are expected to be full-time students with financial need and academic promise. Applications and recommendations must be submitted to the Financial Aid Office and selection is determined by the Scholarship Committee. The Scholarship Committee selects recipients using criteria based on need, interest, aptitude, and, if appropriate, departmental recommendation. Students selected for scholarships who withdraw/drop courses must notify the Financial Aid Office. Replacement for the scholarship is at the discretion of the Financial Aid Office and, if appropriate, the College's Foundation.

Gamma Beta Phi Scholarship — Gamma Beta Phi Honor Society offers a scholarship of one hundred dollars per quarter to a worthy student.

NC Community College Scholarship Program — To qualify as a candidate for these scholarships, a student would have to meet the established criteria. A copy of the eligibility criteria is available in the Financial Aid Office.

The Wachovia Technical Scholarship is awarded annually to a student who is enrolled full-time in the second year of a technical curriculum.

The Southern Bell Scholarship is awarded annually to two NC resident students who are enrolled full-time in a course of study leading to a degree or diploma. The recipient must maintain academic progress and continue enrollment at Cleveland Community College. Financial need receives top priority.

Vocational Rehabilitation — Students with mental, physical or emotional handicaps which limit employment opportunities may be eligible. For information, students should contact the nearest Vocational Rehabilitation Services, Shelby, NC 28150.

CLEVELAND COMMUNITY COLLEGE FOUNDATION

Scholarships Offered Through the Cleveland Community College Foundation (Applications and recommendations must be submitted to the Financial Aid Office and selection is determined by the Scholarship Committee.)

Established in 1983, the **Cleveland Community College Foundation** is a non-profit, tax exempt organization which provides financial support for educational goals of the College. The Foundation's sole purpose is to foster and promote the growth, progress, and well-being of the College. The Foundation is governed by a volunteer Board of Directors comprised of local community and business leaders. Guidance is provided by the College's Office of Development. In fact, a comprehensive development program is a key component of the Foundation. Through this program, the College receives gifts from friends of the College, corporations and businesses, private foundations, alumni, trustees, Foundation directors, and the college's faculty and staff.

Scholarships offered through the Foundation are classified as endowed and general. Only the income earned on endowed gifts may be used by the College. General scholarships are annual or one time scholarships usually given by civic clubs, service agencies, churches, etc. Examples are Shelby Rotary, Kings Mountain Rotary, DAV, American Business Women's Club, Cleveland County Negro Women's Club, and Cleveland Regional Medical Center Auxiliary. Students interested in general scholarships should contact the appropriate agency. The Financial Aid Office staff and the Foundation staff assist in directing students to these agencies.

Endowed Scholarships

The Ruth B. Anthony Memorial provides an annual scholarship for a secretarial science curriculum applicant. Applications must be submitted to the Financial Aid Office by April 1.

The Fraley Memorial is awarded annually to two students from business related curricula.

The Dr. William D. Simpson Memorial provides an annual scholarship for a student enrolled in either the Practical Nurse Education Program or the Associate Degree Nursing Program.

The Whisnant Memorial provides an annual scholarship for a needy student enrolled in any curriculum.

The TECH PREP provides an annual scholarship to a tech prep high school graduate enrolled in any curriculum.

The Dr. Stan Hardin Memorial provides an annual scholarship to a high school graduate enrolled in any curriculum program.

General Scholarships

The Vision Cable Scholarship is sponsored through a joint effort by Vision Cable of Shelby and the Media in Motion Club of Cleveland Community College. This is a merit based scholarship with nominations coming from the Communications Technology staff who base their nominations on established criteria.

Students wishing more information about scholarships should contact the Financial Aid Office and the Cleveland Community College Foundation Office.

Veterans, National Guard and Reserve Programs

N.C. National Guard Tuition Assistance Programs (NCNG) — Tuition assistance is available for members of the North Carolina National Guard. Applications are available at guard units and the Office of the Adjutant General, P.O. Drawer 2628, Raleigh, NC 27611.

Veteran Benefits — Cleveland Community College is approved for eligible veterans and wives, widows and children of disabled or deceased veterans. Applications may be obtained at the Cleveland Community College Veteran's Office or the nearest county Veterans Office.

Veterans and War Orphans Grant — These grants are available to immediate family members of deceased or disabled veterans (service connected). Families of POW's and MIA's classified as such for ninety days are eligible. Students should contact: Division of Veterans Affairs, P.O. Box 26206, Raleigh, NC 27611.

North Carolina Reservist Benefits — Tuition and benefits may be obtained through the Reserve.

Veterans Affairs

The Office of Veterans Affairs provides information and assistance to eligible veterans and dependents of disabled or deceased veterans in applying for educational benefits.

To be eligible for educational benefits, the student must be enrolled in an approved curriculum, taking only those courses required for graduation in the chosen curriculum. Students must, in the judgment of the College, maintain satisfactory progress for continued eligibility.

VA regulations governing institution-approved training of veterans and/or dependents of veterans require that certain documents be on file prior to certification of enrollment:

1. Application for admission;
2. Proper application for VA benefits (Forms 22-1990, 22-5490, or 28-1990);

3. High school transcript or GED scores and transcript of academic record for each college previously attended;
4. If no VA benefits have been received for prior training;
   a. DD-214
   b. marriage certificate (if applicable)
   c. divorce decree (if applicable)
   d. dependent children's birth certificates (if applicable)
5. If VA benefits have been received for prior training, the student submits a change of program form (22-1995).

The VA will not approve for enrollment any of the following: (1) course audits (2) independent study (3) telecourses (4) repeated courses previously passed (5) courses not required in chosen curriculum (6) work experience (7) more than two course substitutions per curriculum.

CURRICULUM PROGRAMS OF STUDY

COLLEGE TRANSFER (Degree Programs)

ASSOCIATE IN ARTS DEGREE

Pre-Art
Pre-Business
Pre-Education: Early Childhood/ Elementary
Pre-Education: Intermediate/Secondary
Pre-Liberal Arts
Pre-Ministerial
Pre-Social Work

ASSOCIATE IN SCIENCE DEGREE

Pre-Health and Physical Education
Pre-Science

ASSOCIATE IN GENERAL EDUCATION DEGREE

TECHNICAL (Degree Programs)

ASSOCIATE IN APPLIED SCIENCE DEGREE

Accounting
Administrative Office Technology
Associate Degree Nursing (RN)
Business Administration
Communications Technology
Criminal Justice-Protective Service Technology
Early Childhood Associate
Electronics Engineering Technology
Fashion Merchandising and Marketing
General Office
Medical Office Technology
Microcomputer Systems Technology
Networking Technologies (approval pending Fall 1996)
Operations Management Technology
Radiography (Radiologic Technology)

VOCATIONAL (Diploma Programs)

Air Conditioning, Heating and Refrigeration
Auto Body Repair
Auto Mechanics
Early Childhood Associate (diploma option)
Electrical Installation
Food Service Specialist (Prison Program)
Industrial Maintenance Mechanics
Machinist
Plumbing and Pipefitting (Prison Program)
Practical Nursing
Residential Carpentry (Prison Program)
Welding

CERTIFICATE PROGRAMS

Advanced Leadership Certificate
Basic Electronics
Basic Law Enforcement Training
Cosmetology
Digital Electronics
Early Childhood Associate (Basic Child Care)
Early Childhood Associate (Child Care Administration)
Fashion Merchandising
Microcomputer Systems Technology (Business Information Management)
Microcomputer Systems Technology (Business Publications and Presentations)
Microcomputer Systems Technology (Microcomputer Technical Support)
Real Estate
Residential Carpentry
Residential Plumbing (Fall 1996)

(The College reserves the right to cancel any class or curriculum, day or night, for which there is insufficient enrollment.)

COLLEGE TRANSFER CREDIT

Areas of Study

Cleveland Community College offers students the opportunity to complete the first two years of various four-year college or university general education requirements. For example, students interested in the areas of study listed below can spend their first two years at Cleveland Community College qualifying for an associate degree and transfer to a four-year institution with junior class standing. A partial listing of areas of study whose prerequisites and/or lower division requirements may be met, in part or in full, at Cleveland Community College follows:

BUSINESS
Accounting
Business Administration
Business Education
Computer Science

EDUCATION (Teaching)
Elementary
Secondary
Industrial Arts
Physical Education
Recreation
Health

ENGINEERING
Aerospace
Construction
Industrial
Chemical
Civil
Electrical
Electronics
Environmental
Mechanical
Nuclear

ENGLISH
English
Journalism

HUMANITIES
Art
Liberal Arts
Religion
Philosophy

MATHEMATICS
Mathematics
Computer Science
Statistics

MEDICAL RELATED
Dentistry
Medicine
Medical Technology
Nursing
Optometry
Physical Therapy
Pharmacy
Veterinary Medicine

NATURAL SCIENCE
Agriculture
Biology
Biochemistry
Conservation and Ecology
Forestry
Microbiology
Physical Science
Physics
Textiles

SOCIAL STUDIES
Economics
History
Law
Political Science
Psychology
Social Work
Sociology

DEVELOPMENTAL COURSES

Developmental courses may be required for degree-seeking students. See admission requirements.

Developmental courses are designed to provide instruction in the basic skills so that the student will be successful in regular, collegiate-level courses. These courses earn credit hours for the quarter in which they are taken but do not count toward graduation. Grades for developmental courses are "satisfactory" (S) or "unsatisfactory" (U) grades. These grades are not computed with other courses except that they must be passed with a grade of (S) before students can enroll in higher level English, reading, and mathematics courses.

			HOURS		
			CLASS	LAB	CREDIT
ENG	99	Basic English Skills	4	0	4
MAT	99	Basic Mathematics Skills	4	0	4
RED	99	Basic Reading Skills	4	0	4
MAT	101	Principles of Mathematics	4	0	4
MAT	102	Introduction to Algebra	4	0	4
MAT	103	Intermediate Algebra	4	0	4

COLLEGE TRANSFER PROGRAMS

A large number of students plan their programs for transfer to four-year colleges or universities. Students enroll in what is usually referred to as the transfer curriculum which offers courses that parallel those offered during the first two years at a four-year institution. Most credits earned in this curriculum may be transferred to colleges and universities as the first and second years of a baccalaureate degree program.

Cleveland Community College's transfer program includes many courses designed to prepare students for upper division study in such fields as business, education, engineering, dentistry, law, and medicine. A specially designed general transfer sequence of courses (Pre-Liberal Arts or Pre-Science) is also available for students who have not yet decided upon a major but who intend to transfer their credits to a four-year institution.

Students who plan to transfer to a four-year college or university are advised to give careful attention to the following:

1. The transferability of courses taken at Cleveland Community College is determined solely by the institution to which the student transfers. Curricula and courses have been developed to facilitate transfer of credits. However, some academic departments in four-year institutions have specific requirements which warrant special attention.
2. Students are responsible for meeting the entrance requirements of the institution to which they plan to transfer. Students should

work with their faculty advisors to ensure that the courses meet the requirements of the four-year program that they wish to enter.

3. Completion time for college transfer studies will be no longer than six or seven quarters if the student needs to enroll in developmental courses.
4. Because of schedules and personal situations, night students may need longer periods than two years to complete their studies.

Students enrolled in the college transfer program will earn the Associate in Arts or Associate in Science degree after completing the prescribed 96 quarter hours of study.

Upon completion of liberal arts programs, the student should:

1. Write and speak with clarity and precision, in keeping with the rules of standard English.
2. Read and interpret literature critically and analytically.
3. Write critically and analytically in response to literary themes and ideas.
4. Understand the relationship between the history of western civilization and one's culture.
5. Understand the meaning of the "multicultural" approach to history.
6. Understand sociological principles and concepts.
7. Understand one's culture, the cultures of others, and their influences on individual and group behavior.
8. Understand major psychological theories and their effects on individual and group behavior.
9. Understand mathematical and scientific principles and concepts.
10. Use logical reasoning to solve mathematical and scientific problems.
11. Understand, appreciate, and enjoy physical activity and its role in enhancing the quality of one's life.

DEGREE CREDIT PROGRAMS

ASSOCIATE IN ARTS DEGREE

Students who select the Associate in Arts degree at Cleveland Community College transfer to senior colleges to pursue such majors as the following:

Art	English	Liberal Arts
Accounting	Foreign Languages	Literature
Business Administration	History	Political Science
Economics	Journalism	Psychology
Education	Law	Religion
		Social Work

An Associate in Arts degree will be granted to students completing the following requirements:

A. General Graduation Requirements

The satisfactory completion of no fewer than 96 quarter hours.

B. Specific Graduation Requirements

1. Completion of 14 quarter hours in communications as verified by the following sequence: ENG 109, 130, 131, 132
2. Completion of 13-18 quarter hours from at least two different disciplines of the following humanities and the fine arts courses:
   a. ART 106, 107
   b. DRA 105
   c. ENG 202, 208; select from 213, 214, 215, 219
   d. MUS 102
   e. PHI 102, 103
   f. REL 104
3. Completion of 9 quarter hours of mathematics as follows: MAT 121, 122, 123
4. Completion of 12 quarter hours of a laboratory science from the following sequences of courses:
   a. BIO 101, 102, 103
   b. CHM 101, 102, 103
   c. PHY 201, 202, 203
5. Completion of 10-15 quarter hours from at least two different disciplines of the following social science courses:
   a. HIS 104, 105; HIS 106 or 113, 107, 114
   b. PSY 104, 109, 203, 205, 208, 214, 215
   c. SOC 102, 204, 205
6. Completion of 3 quarter hours of physical education, (usually activity courses), chosen from the following:
   a. Lecture Courses: SAF 106; PED 116 (3-hour courses)
   b. Activity Courses: PED 101, 102, 103, 104, 105, 107, 108, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124 (1-hour courses)

Students with a medical disability may substitute lecture courses for activity courses.

C. Elective Graduation Requirements

1. Completion of electives from any of the following areas:
   a. Humanities/Fine Arts Education (ART 106, 107, 121, 122, 123, 202, 203; DRA 105, 106, 108, 200, 202, 208; EDU 101, 105, 122, 201, 203, 204, 233; ENG 109, 133, 200, 202, 203, 208, 209, 210, 215, 216, 217, 219, 226, 227 or 205; MUS 102; PHI 102, 103, 104; REL 104, 105, 106, 201, 202 or 215, 216, 217)
   b. Mathematics (MAT 118, 203, 210, 251, 252, 261, 262)
   c. Science (BIO 101, 102, 103; BIO 107, 108, 109; BIO 205, 206; BOT 202; ZOO 201; CHM 101, 102, 103; PHY 201, 202, 203)
   d. Social Science (GEO 101; HIS 104, 105, 106 or 113, 107, 114; PSY 103, 104, 203, 204, 208, 209, 211, 238, 240; SOC 102, 204, 205)
   e. Business Courses (ACC 120, 121, 222; ECO 102, 104; CAS 101; approved electives)
   f. Foreign Language Courses (SPA 160, 161, 162, 260, 261, 262)
   g. Electives may include up to 6 quarter hours of co-op or work experience.
2. Courses used to satisfy specific graduation requirements may not be used again for elective requirements.

A.A. Pre-Art

I. **Communications** (9 quarter hours)
ENG 130, 131, 132

II. **Humanities and Fine Arts** (18 quarter hours)
Public Speaking (5 quarter hours) ENG 109 (required)
American Literature (3 quarter hours) ENG 205 or ENG 227
Select two five-hour courses:
ART 106; DRA 108
ENG 208, 213, 214, 215, 223, 224
PHI 102
REL 104, 105, 106

III. **Mathematics** (9 quarter hours)
MAT 121, 122, 123

IV. **Science** (12 quarter hours)
Select one sequence (12 quarter hours)
BIO 101, 102, 103
CHM 101, 102, 103
PHY 201, 202, 203

V. **Social Science** (15 quarter hours)
PSY 104
SOC 102, 204, 205

VI. **Physical Education** (3 quarter hours)
Select three one-hour courses from the following:
PED 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124
Students with a medical disability may select SAF 106 (3 quarter hours) or PED 116 (3 quarter hours)
Activity courses are recommended for college transfer.

VII. **Electives** (30 hours)
ART 106, 107, 111, 112, 113, 121, 122, 123, 131, 132, 133, 161, 162, 165, 224, 291, 292, 295; DRA 105, 106, 108, 200, 208; EDU 101, 105, 121, 122, 151, 201, 203, 204, 233; ENG 203, 205 or 225, 209, 213, 214, 215, 223, 224, 226; MUS 102; PHI 102, 103, 104; PHO 101, 102, 201; REL 104, 105, 106, 201, 202 or 215, 216, 217
Foreign language (SPA 160, 161, 162, 260, 261, 262)
Special interest, one-hour courses:
ENG 111, 200, 216, 217; PSY 105, 106
Courses taken to satisfy graduation requirements may not be used again for elective credit.

SUGGESTED SEQUENCE OF COURSES
ASSOCIATE IN ARTS - PRE-ART

			HOURS CLASS	LAB	CREDIT
FIRST YEAR					
Fall Quarter					
ENG	130	English Grammar and Composition	3	0	3
MAT	121	College Algebra I	3	0	3
ART	121	Drawing I	2	2	3
ART	111	Two Dimensional Design	2	2	3
		History Sequence (HIS 104 or HIS 106/HIS 113)	5	0	5
			15	4	17
Winter Quarter					
ENG	131	Composition and Introduction to Literature	3	0	3
MAT	122	College Algebra II	3	0	3
ART	122	Drawing II	2	2	3
		History Sequence (HIS 105 or HIS 107)	5	0	5
ART	112	Color and Design	2	2	3
			15	4	17
Spring Quarter					
ENG	132	Composition/Research/Documentation	3	0	3
MAT	123	Trigonometry	3	0	3
ART	123	Drawing III	2	2	3
		Elective	5	0	5
ART	113	Three Dimensional Design	2	2	3
			15	4	17
SECOND YEAR					
Fall Quarter					
		Science Sequence (BIO 101; CHM 101; or PHY 201)	3	2	4
		Physical Education	0	2	1
ART	131	Introduction to Studio Painting	2	2	3
		Fine Arts Selection (excluding ART 106)	5	0	5
			10	6	13
Winter Quarter					
		Science Sequence continued (BIO 102; CHM 102; or PHY 202)	3	2	4
ART	132	Studio Painting II	2	2	3
		Elective	3	0	3
		Social Science Elective	5	0	5
		Physical Education	0	2	1
			13	6	16
Spring Quarter					
		Science Sequence continued (BIO 103; CHM 103; or PHY 203)	3	2	4
ENG	109	Public Speaking	5	0	5
ENG	205	Major American Writers or ENG 227	3	0	3
ART	133	Studio Painting III	2	2	3
		Physical Education	0	2	1
			13	4	16

Total credit hours required for graduation = 96

A. A. Pre-Business

The Pre-Business curriculum is a college-transfer program designed for students who plan to pursue a four-year degree in business. The program consists of liberal arts, science, and mathematics courses required during the first two-years of college together with college transfer courses in accounting, economics, and data processing.

Upon completion of the Pre-Business Program, the student should be able to:

1. Write and speak with clarity and precision, in keeping with the rules of standard English.
2. Read and interpret literature critically and analytically.
3. Write critically and analytically in response to literary themes and ideas.
4. Understand the relationship between the history of western civilization and one's culture.
5. Understand the meaning of the "multicultural" approach to history.
6. Understand sociological principles and concepts.
7. Understand one's culture, the culture of others, and their influences on individual and group behavior.
8. Understand major psychological theories and their effects on individual and group behavior.
9. Understand mathematical and scientific principles and concepts.
10. Use logical reasoning to solve mathematical and scientific problems.
11. Understand, appreciate, and enjoy physical activity and its role in enhancing the quality of one's life.
12. Understand principles of accounting.
13. Determine the success or failure of business procedures.
14. Understand economic theories.
15. Understand macroeconomics and microeconomics.

I. **Communications** (9 quarter hours) ENG 130, 131, 132

II. **Humanities and Fine Arts** (15 quarter hours)
Public Speaking (5 quarter hours) ENG 109 (required)
Select five quarter hours (one course) from the following:
ENG 213, 214, 215, 223, 224
Select five quarter hours (one course) from the following: ART 106, 107; MUS 102; PHI 102, 103; REL 104, 105, 106

III. **Mathematics** (9 quarter hours) MAT 121, 122, 123

IV. **Science** (12 quarter hours) Select one sequence from the following: BIO 101, 102, 103, or CHM 101, 102, 103 or PHY 201, 202, 203

V. **Social Science** (15 quarter hours) Select one sequence (10 quarter hours) from the following:
HIS 104, 105 or HIS 106 or 113, 107

Select one course (5 quarter hours) from the following: PSY 104; SOC 102, 204, 205

VI. **Physical Education** (3 quarter hours) Select three one-hour courses from the following: PED 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124

Students with a medical disability may select SAF 106 (3 quarter hours) or PED 116 (3 quarter hours).

Activity courses are recommended for college transfer.

VII. **Electives** (33 quarter hours)

1. **The following electives are <u>strongly recommended</u>**
   ACC 120, Accounting I
   ACC 121, Accounting II
   ACC 222, Accounting III
   ECO 102, Economics I
   ECO 104, Economics II
2. Select one free elective which may include academic areas listed below.
   Computer courses are strongly recommended.
3. Select electives from the following academic areas:
   a. Humanities and Fine Arts/Education (ART 106, 107, 121, 122, 123, 131, 132, 133, 161, 162, 165, 224, 291, 292, 295; DRA 105, 106, 108, 200, 208; EDU 101, 105, 122, 201, 203, 204, 233; ENG 133, 200, 203, 205 or 227, 208, 209, 210, 213, 214, 215, 216, 217, 223, 224, 226; MUS 102; PHI 102, 103, 104; REL 104, 105, 106, 201, 202 or 215, 216, 217)
   b. Mathematics (MAT 118, 206, 251, 252, 261, 262, 263) Mathematics courses, including statistics, are recommended for business majors.
   c. Science (BIO 101, 102, 103, 107, 108, 109, 205, 206; BOT 202; CHM 101, 102, 103; PHY 201, 202, 203)
   d. Social Science (GEO 101; HIS 104, 105, 106 or 113, 107, 114; POL 102, 104; PSY 104, 105, 106, 107, 108, 109, 203)
   e. Foreign Language (SPA 160, 161, 162, 260, 261, 262)
   f. Physical Education (PED 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124; SAF 106)
   g. Students may select one-hour special interest courses.
   Courses completed to satisfy graduation requirements may not be used again for elective credit.

SUGGESTED SEQUENCE OF COURSES
ASSOCIATE IN ARTS - PRE-BUSINESS

			HOURS CLASS	LAB	CREDIT
FIRST YEAR					
Fall Quarter					
ENG	130	English Grammar and Composition	3	0	3
		Science Sequence (Select one.) BIO 101; CHM 101; PHY 201	3	2	4
		History Sequence (Select one.) HIS 104 or HIS 106 or HIS 113	5	0	5
		Literature Selection	5	0	5
			16	2	17
Winter Quarter					
ENG	131	Composition and Introduction to Literature	3	0	3
		Science Sequence (Select one.) BIO 102; CHM 102; PHY 202)	3	2	4
		History Sequence (Select one.) HIS 105 or HIS 107	5	0	5
		Fine Arts/Humanities Selection	5	0	5
			16	2	17
Spring Quarter					
ENG	132	Composition/Research/Documentation	3	0	3
ENG	109	Public Speaking	5	0	5
		Science Sequence (Select one.) BIO 103; CHM 103; PHY 203	3	2	4
		Social Science Selection	5	0	5
		Physical Education	0	2	1
			16	4	18
SECOND YEAR					
Fall Quarter					
MAT	121	College Algebra I	3	0	3
ACC	120	Accounting I*	4	4	6
ECO	102	Economics I*	5	0	5
			12	4	14
Winter Quarter					
MAT	122	College Algebra II	3	0	3
ACC	121	Accounting II*	4	4	6
ECO	104	Economics II*	5	0	5
		Physical Education	0	2	1
			12	6	15
Spring Quarter					
MAT	123	Trigonometry	3	0	3
ACC	222	Accounting III*	4	4	6
		Free Elective	5	0	5
		Physical Education	0	2	1
			12	6	15

Total credit hours required for graduation = 96

* Strongly recommended.

A.A. Pre-Education: Early Childhood/Elementary

I. **Communications** (9 quarter hours) ENG 130, 131, 132

II. **Humanities and Fine Arts** (18 quarter hours)
Public Speaking (5 quarter hours) ENG 109 (required)
Select five quarter hours (one course) from the following:
ENG 208, 213, 214, 215, 223, 224
Major American Writers (3 quarter hours) ENG 205 or 227 (required)
Select five quarter hours (one course) from the following:
ART 106, MUS 102

III. **Mathematics** (9 quarter hours) MAT 121, 122, 123

IV. **Science** (12 quarter hours) Select one sequence from the following: BIO 101, 102, 103; or CHM 101, 102, 103; or PHY 201, 202, 203
Requirements in humanities (which include philosophy and religion) and fine arts vary considerably at four year colleges and universities. Therefore, students should select courses in keeping with the four-year college or university to which they plan to enroll.

V. **Social Science** (15 quarter hours) Select one sequence from the following: HIS 104, 105 or HIS 106 or 113, 107
Select one course (5 quarter hours) from the following: PSY 104 or SOC 102

VI. **Physical Education** (3 quarter hours)
Select three one-hour courses from the following: PED 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124
Students with a medical disability may take SAF 106 (3 quarter hours) or PED 116 (3 quarter hours)
Activity courses are strongly recommended for education majors.

VII. **Electives** (30 quarter hours)
1. Select one free elective.
2. Select other electives from at least two of the following academic areas:
   a. Humanities and Fine Arts/Education (ART 106, 107, 121, 122, 123, 131, 132, 133, 161, 162, 165, 224, 291, 292, 295; DRA 105, 106, 108, 200, 208; EDU 101, 105, 122, 201, 203, 204, 233; ENG 111, 133, 200, 203, 208, 209, 210, 213, 214, 215, 216, 217, 223, 224, 226, 227; MUS 102; PHI 102, 103, 104; REL 104, 105, 106, 201, 202 or 215, 216, 217)
   Additional literature courses, religion courses, and fine arts courses (ART 106 and MUS 102) are strongly recommended.

b. Mathematics (MAT 118, 206, 251, 252, 261, 262, 263)
c. Science (BIO 101, 102, 103, 107, 108, 109, 205, 206; BOT 202; CHM 101, 102, 103; PHY 201, 202, 203)
d. Social Sciences (GEO 101; HIS 104, 105, 106 or 113, 107, 114; POL 104; PSY 104, 105, 106, 107, 108, 109, 203, 205, 208, 214, 215; SOC 102, 204, 205)
PSY 104; SOC 102, 204, 205, and additional history courses are recommended.
e. Foreign Language (SPA 160, 161, 162, 260, 261, 262)
f. Physical Education (PED 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124; SAF 106)
g. Students may select one-hour special interest courses. **Courses taken to satisfy graduation requirements may not be used again for elective credit.**

SUGGESTED SEQUENCE OF COURSES ASSOCIATE IN ARTS - PRE-EDUCATION: EARLY CHILDHOOD/ELEMENTARY

			HOURS		
			CLASS	LAB	CREDIT
FIRST YEAR					
Fall Quarter					
ENG	130	English Grammar and Composition	3	0	3
		Science Sequence (Select one.) BIO 101; CHM 101; SPY 201	3	2	4
		History Sequence (Select one.) HIS 104 or HIS 106 or HIS 113	5	0	5
		Literature Selection	5	0	5
		Physical Education	0	2	1
			16	4	18
Winter Quarter					
ENG	131	Composition and Introduction to Literature	3	0	3
		Science Sequence (Select one.) BIO 102; CHM 102; PHY 202)	3	2	4
		History Sequence (Select one.) HIS 105 or HIS 107	5	0	5
		Physical Education	0	2	1
			11	4	13
Spring Quarter					
ENG	132	Composition/Research/Documentation	3	0	3
		Science Sequence (Select one.) BIO 103; CHM 103; PHY 203	3	2	4
		Social Science Selection	5	0	5
		Physical Education	0	2	1
		Elective	5	0	5
			16	4	18

			HOURS		
			CLASS	LAB	CREDIT
SECOND YEAR					
Fall Quarter					
MAT	121	College Algebra I	3	0	3
ENG	109	Public Speaking	5	0	5
		Elective	5	0	5
		Elective	5	0	5
			18	0	18
Winter Quarter					
MAT	122	College Algebra II	3	0	3
		Fine Arts Selection	5	0	5
		Elective	5	0	5
			13	0	13
Spring Quarter					
MAT	123	Trigonometry	3	0	3
ENG	205	Major American Writers or ENG 227	3	0	3
		Elective	5	0	5
		Elective	5	0	5
			16	0	16

Total credit hours required for graduation = 96

A.A. Pre-Education: Intermediate/Secondary

I. **Communications** (9 quarter hours) ENG 130, 131, 132

II. **Humanities and Fine Arts** (18 quarter hours)
Public Speaking (5 quarter hours) ENG 109 (required)
American Literature (3 quarter hours) ENG 205 or 227 (required)
Select five quarter hours (one course) from the following:
ENG 208, 213, 214, 215, 223, 224
Select five quarter hours (one course) from the following:
ART 106, MUS 102
Requirements in humanities (which include philosophy and religion) and fine arts and in other academic areas vary considerably at four-year colleges and universities. Also, departmental requirements at various four-year colleges and universities vary considerably. Therefore, students should select courses in keeping with the four-year college or university to which they plan to transfer.

III. **Mathematics** (9 quarter hours) MAT 121, 122, 123

IV. **Science** (12 quarter hours) Select one sequence (12 quarter hours) from the following: BIO 101, 102, 103; or CHM 101, 102, 103; or PHY 201, 202, 203

V. **Social Science** (15 quarter hours) Select one sequence from the following: HIS 104, 105 or HIS 106 or 113, 107
Select five quarter hours (one course) from the following:
SOC 102, 204, 205

VI. **Physical Education** (3 quarter hours)
Select three one-hour courses from the following: PED 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124 (1-hour courses)
Activity courses are strongly recommended for education majors. Students with a medical disability may take SAF 106 (3 quarter hours) or PED 116.

VII. **Electives** (30 quarter hours)
1. Select one free elective.
2. Select other electives from at least two of the following academic areas:
   a. Humanities and Fine Arts/Education (ART 106, 107, 111, 112, 113, 121, 122, 123, 131, 132, 133, 161, 162, 165, 224, 291, 292, 295; DRA 105, 106, 108, 200, 208; EDU 101, 105, 122, 201, 203, 204, 233; ENG 111, 133, 200, 203, 208, 209, 210, 213, 214, 215, 216, 217, 223, 224, 226, 227; MUS 102; PHI 102, 103, 104; REL 104, 105, 106, 201, 202 or 215, 216, 217)

Additional literature courses, religion courses, and fine arts courses (ART 106 and MUS 102) are strongly recommended.

b. Mathematics (MAT 118, 206, 251, 252, 261, 262, 263)
c. Science (BIO 101, 102, 103, 107, 108, 109, 205, 206; BOT 202; CHM 101, 102, 103; PHY 201, 202, 203)
d. Social Sciences (GEO 101; HIS 104, 105, 106 or 113, 107, 114; POL 104; PSY 104, 105, 106, 107, 108, 109, 203, 205, 208, 214, 215; SOC 102, 204, 205)
PSY 104; SOC 102, 204, 205, and additional history courses are recommended.
e. Foreign Language (SPA 160, 161, 162, 260, 261, 262)
f. Physical Education (PED 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124; SAF 106)
g. Students may select one-hour special interest courses.
Courses taken to satisfy graduation requirements may not be used again for elective credit.

SUGGESTED SEQUENCE OF COURSES ASSOCIATE IN ARTS - PRE-EDUCATION: INTERMEDIATE/SECONDARY

		HOURS		
		CLASS	LAB	CREDIT
FIRST YEAR				
Fall Quarter				
ENG 130	English Grammar and Composition	3	0	3
	Science Sequence (Select one.) BIO 101; CHM 101; PHY 201	3	2	4
	History Sequence (Select one.) HIS 104 or HIS 106 or 113	5	0	5
	Literature Selection	5	0	5
	Physical Education	0	2	1
		16	4	18
Winter Quarter				
ENG 131	Composition and Introduction to Literature	3	0	3
	Science Sequence (Select one.) BIO 102; CHM 102; PHY 202)	3	2	4
	History Sequence (Select one.) HIS 105 or HIS 107	5	0	5
	Physical Education	0	2	1
		11	4	13

			HOURS		
			CLASS	LAB	CREDIT
Spring Quarter					
ENG	132	Composition/Research/Documentation	3	0	3
		Science Sequence (Select one.)	3	2	4
		BIO 103; CHM 103; PHY 203			
		Social Science Selection	5	0	5
		Physical Education	0	2	1
		Elective	5	0	5
			16	4	18
SECOND YEAR					
Fall Quarter					
MAT	121	College Algebra I	3	0	3
ENG	109	Public Speaking	5	0	5
		Elective	5	0	5
		Elective	5	0	5
			18	0	18
Winter Quarter					
MAT	122	College Algebra II	3	0	3
		Fine Arts Selection	5	0	5
		Elective	5	0	5
			13	0	13
Spring Quarter					
MAT	123	Trigonometry	3	0	3
ENG	205	Major American Writers or ENG 227	3	0	3
		Elective	5	0	5
		Elective	5	0	5
			16	0	16

Total credit hours required for graduation = 96

A.A. Pre-Liberal Arts

I. **Communications** (9 quarter hours) ENG 130, 131, 132

II. **Humanities and Fine Arts** (18 quarter hours)
Public Speaking (5 quarter hours) ENG 109 (required)
American Literature (3 quarter hours) ENG 205 or 227 (required)
Select ten quarter hours from the following: ENG 208, 213, 214, 215, 223, 224; ART 106, 107; DRA 108; MUS 102; PHI 102; REL 104, 105, 106, 201, 202

III. **Mathematics** (9 quarter hours) MAT 121, 122, 123

IV. **Science** (12 quarter hours) Select one sequence (12 quarter hours) from the following: BIO 101, 102, 103; or CHM 101, 102, 103; or PHY 201, 202, 203

V. **Social Science** (15 quarter hours) Select one sequence (15 quarter hours) from the following: HIS 104, 105 or HIS 106 or 113, 107, 114
Select one course (5 quarter hours) from the following: PSY 104, 203, 205, 208, 214, 215; SOC 102, 204, 205

VI. **Physical Education** (3 quarter hours)
Select three one-hour courses from the following: PED 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124
Students with a medical disability may select SAF 106 (3 quarter hours) or PED 116 (3 quarter hours)
Activity courses are strongly recommended for education majors.

VII. **Electives** (30 quarter hours)
1. Select one free elective.
2. Select other electives from at least two of the following academic areas:
   a. Humanities and Fine Arts/Education (ART 106, 107, 121, 122, 123, 131, 132, 133, 161, 162, 165, 224, 291, 292; DRA 105, 106, 108, 200, 202, 208; EDU 101, 105, 122, 201, 203, 204, 233; ENG 111, 133, 200, 203, 208, 209, 210, 213, 214, 215, 216, 217, 223, 224, 226, 227; MUS 102; PHI 102, 103, 104; REL 104, 105, 106, 201, 202 or 215, 216, 217)
   Recommended: ART 106; ENG 208, 213, 214, 215, 223, 224; MUS 102; PHI 102; REL 104, 105, 106, 201, 202 or 215, 217
   b. Mathematics (MAT 118, 206, 251, 252, 261, 262, 263)
   c. Science (Recommended: Take one sequence.) BIO 101, 102, 103, 107, 108, 109, 205; BOT 202; CHM 101, 102, 103; PHY 201, 202, 203)

d. Social Sciences (GEO 101; HIS 104, 105, 106 or 113, 107, 114; POL 104; PSY 104, 105, 106, 107, 108, 109, 203, 205, 208, 214, 215; SOC 102, 204, 205)
Recommended: HIS 104, 105, 106 or 113, 107; PSY 104; SOC 102
e. Foreign Language (SPA 160, 161, 162, 260, 261, 262)
f. Physical Education (PED 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124; SAF 106)
g. Students may select one-hour special interest courses.
Courses taken to satisfy graduation requirements may not be used again for elective credit.

SUGGESTED SEQUENCE OF COURSES
ASSOCIATE IN ARTS - PRE-LIBERAL ARTS

			HOURS		
			CLASS	LAB	CREDIT
FIRST YEAR					
Spring Quarter					
ENG	130	English Grammar and Composition	3	0	3
		Science Sequence (Select one.)	3	2	4
		BIO 101; CHM 101; PHY 201			
		History Sequence (Select one.)	5	0	5
		HIS 104 or HIS 106 or HIS 113			
		Physical Education	0	2	1
		Elective	5	0	5
			16	4	18
Winter Quarter					
ENG	131	Composition and Introduction to Literature	3	0	3
		Science Sequence (Select one.)	3	2	4
		BIO 102; CHM 102; PHY 202)			
		History Sequence (Select one.)	5	0	5
		HIS 105 or HIS 107			
		Physical Education	0	2	1
			11	4	13
Spring Quarter					
ENG	132	Composition/Research/Documentation	3	0	3
		Science Sequence (Select one.)	3	2	4
		BIO 103; CHM 103; PHY 203			
		Social Science Selection	5	0	5
		Physical Education	0	2	1
		Elective	5	0	5
			16	4	18

			HOURS CLASS	LAB	CREDIT
SECOND YEAR					
Fall Quarter					
MAT	121	College Algebra I	3	0	3
ENG	109	Public Speaking	5	0	5
		Humanities/Fine Arts Selection	5	0	5
		Social Science Selection	5	0	5
			18	0	18
Winter Quarter					
MAT	122	College Algebra II	3	0	3
		Humanities/Fine Arts Selection	5	0	5
		Elective	5	0	5
			13	0	13
Spring Quarter					
MAT	123	Trigonometry	3	0	3
ENG	205	Major American Writers or ENG 227	3	0	3
		Humanities/Fine Arts	5	0	5
		Elective	5	0	5
			16	0	16

Total credit hours required for graduation = 96

A.A. Pre-Ministerial

I. **Communications** (9 quarter hours) ENG 130, 131, 132

II. **Humanities and Fine Arts** (18 quarter hours)
Public Speaking (5 quarter hours) ENG 109 (required)
American Literature (3 quarter hours) ENG 205 or 227 (required)
Select ten quarter hours from the following: ENG 208, 213, 214, 215; REL 104, 105, 106, 201, 202 or 215

III. **Mathematics** (9 quarter hours) MAT 121, 122, 123

IV. **Science** (12 quarter hours) Select one sequence (12 quarter hours) from the following: BIO 101, 102, 103; or CHM 101, 102, 103; or PHY 201, 202, 203

V. **Social Science** (15 quarter hours) Select one sequence from the following: HIS 104, 105 or HIS 106 or 113, 107
Select one course (5 quarter hours) from the following: PSY 104 or SOC 102

VI. **Physical Education** (3 quarter hours)
Select three one-hour courses from the following: PED 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119
Students with a medical disability may select SAF 106 (3 quarter hours) or PED 116 (3 quarter hours)
Activity courses are strongly recommended for education majors.

VII. **Electives** (30 quarter hours)
1. Select one free elective.
2. Select other electives from at least two of the following academic areas:
   a. Humanities and Fine Arts (ART 107, 111, 112, 113, 121, 122, 123, 131, 132, 133, 161, 162, 165, 224, 291, 292, 295; DRA 105, 106, 108, 200, 208; EDU 101, 105, 122, 201, 203, 204, 233; ENG 111, 133, 200, 203, 205/227, 209, 210, 213, 214, 215, 216, 217, 218, 225, 226; MUS 102; PHI 102, 103, 104; REL 104, 105, 106, 201, 202 or 215, 216, 217)
   b. Mathematics (MAT 118, 206, 251, 252, 261, 262, 263)
   c. Science (BIO 101, 102, 103, 107, 108, 109, 205; BOT 202; CHM 101, 102, 103, 110; PHY 201, 202, 203)
   d. Social Sciences (GEO 101; HIS 104, 105, 106 or 113, 107, 114; POL 104; PSY 104, 105, 106, 107, 108, 109, 203, 205, 208, 214, 215; SOC 102, 204, 205)
   e. Foreign Language (SPA 160, 161, 162, 260, 261, 262)
   f. Physical Education (PED 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124; SAF 106)

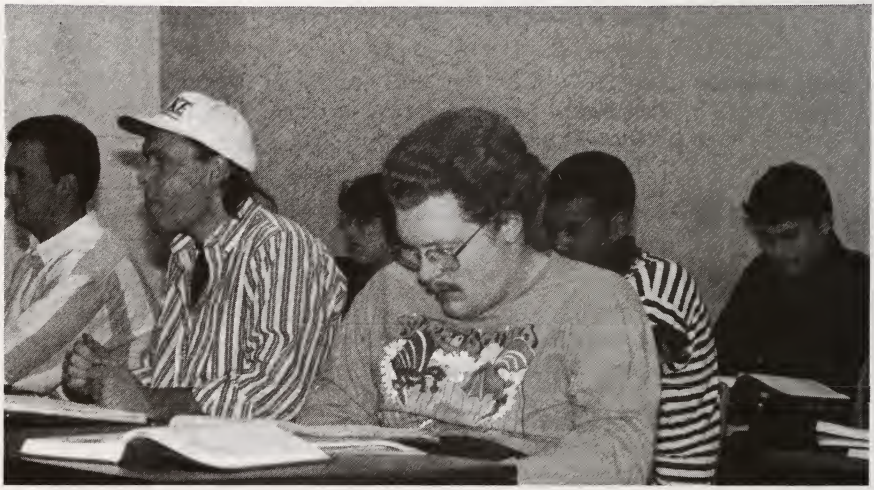
Students with a medical disability may take SAF 106 or PED 116 (3 quarter hour courses).
Activity courses are strongly recommended for college transfer.
Students may select one-hour special interest courses.
Courses taken to satisfy graduation requirements may not be used again for elective credit.

SUGGESTED SEQUENCE OF COURSES
ASSOCIATE IN ARTS - PRE-MINISTERIAL

			HOURS		
			CLASS	LAB	CREDIT
FIRST YEAR					
Spring Quarter					
ENG	130	English Grammar and Composition	3	0	3
		Science Sequence (Select one.)	3	2	4
		BIO 101; CHM 101; PHY 201			
		History Sequence (Select one.)	5	0	5
		HIS 104 or HIS 106 or HIS 113			
		Literature/Religion Selection	5	0	5
		Physical Education	0	2	1
			16	4	18
Winter Quarter					
ENG	131	Composition and Introduction to Literature	3	0	3
		Science Sequence (Select one.)	3	2	4
		BIO 102; CHM 102; PHY 202)			
		History Sequence (Select one.)	5	0	5
		HIS 105 or HIS 107			
		Physical Education	0	2	1
			11	4	13
Spring Quarter					
ENG	132	Composition/Research/Documentation	3	0	3
		Science Sequence (Select one.)	3	2	4
		BIO 103; CHM 103; PHY 203			
		Social Science Selection	5	0	5
		Physical Education	0	2	1
		Elective	5	0	5
			16	4	18
SECOND YEAR					
Fall Quarter					
MAT	121	College Algebra I	3	0	3
ENG	109	Public Speaking	5	0	5
		Elective	5	0	5
		Elective	5	0	5
			18	0	18
Winter Quarter					
MAT	122	College Algebra II	3	0	3
		Literature/Religion Selection	5	0	5
		Elective	5	0	5
			13	0	13

			HOURS		
			CLASS	LAB	CREDIT
Spring Quarter					
MAT	123	Trigonometry	3	0	3
ENG	205	Major American Writers or ENG 227	3	0	3
		Elective	5	0	5
		Elective	5	0	5
			16	0	16

Total credit hours required for graduation = 96



A.A. Pre-Social Work

I. **Communications** (9 quarter hours) ENG 130, 131, 132

II. **Humanities and Fine Arts** (18 quarter hours)
Public Speaking (5 quarter hours) ENG 109 (required)
Select five quarter hours from the following:
ENG 208, 213, 214, 215, 223, 224
Major American Writers ENG 205 or 227 (3 quarter hours) (required)
Select five quarter hours (one course) from the following:
ART 106; MUS 102

III. **Mathematics** (9 quarter hours) MAT 121, 122, 123

IV. **Science** (12 quarter hours)
Select one sequence from the following:
BIO 101, 102, 103; CHM 101, 102, 103; PHY 201, 201, 203

V. **Social Science** (15 quarter hours)
Select five one-hour courses from the following:
HIS 104, 105 or HIS 106 or 113, 107 and SOC 102 (required)

VI. **Physical Education** (3 quarter hours)
Select three one-hour courses from the following:
PED 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124
Students with a medical disability may take SAF 106 (3 quarter hours) or PED 116 (3 quarter hours)

VII. **Electives** (30 quarter hours)
1. Select one free elective.
2. Select other electives from at least two of the following academic areas:
   a. Humanities and Fine Arts (ART 106, 107, 121, 122, 123, 131, 132, 133, 224, 291, 292, 295; DRA 105, 108, 200, 208; EDU 101, 105, 122, 201, 203, 204, 233; ENG 111, 133, 200, 203, 208, 209, 213, 214, 215, 216, 217, 223, 224, 225; MUS 102; PHI 102, 103, 104; REL 104, 105, 106, 201, 202 or 215, 216, 217)
   b. Mathematics (MAT 118, 206, 251, 252, 261, 262, 263) **(Statistics courses are highly recommended.)**
   c. Science (BIO 101, 102, 103, 107, 108, 109, 205, 206; CHM 101, 102, 103; PHY 201, 202, 203)
   d. Social Sciences (GEO 101; HIS 104, 105, 106 or 113, 107, 114; POL 104; PSY 104, 105, 106, 107, 108, 109, 203, 205, 208, 212, 214, 215; SOC 204, 205)
   PSY 104; SOC 204, 205, and additional history courses are recommended.
   e. Foreign Language (SPA 160, 161, 162, 260, 261, 262)
   f. Physical Education (PED 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124; SAF 106)

Also highly recommended are additional psychology electives. Courses taken to satisfy graduation requirements may not be used again for elective credit.

SUGGESTED SEQUENCE OF COURSES
ASSOCIATE IN ARTS - PRE-SOCIAL WORK

			HOURS		
			CLASS	LAB	CREDIT
FIRST YEAR					
Spring Quarter					
ENG	130	English Grammar and Composition	3	0	3
		Science Sequence (Select one.)	3	2	4
		BIO 101; CHM 101; PHY 201			
		History Sequence (Select one.)	5	0	5
		HIS 104 or HIS 106 or HIS 113			
		Literature Selection	5	0	5
		Physical Education	0	2	1
			16	4	18
Winter Quarter					
ENG	131	Composition and Introduction to Literature	3	0	3
		Science Sequence (Continued)	3	2	4
		BIO 102; CHM 102; PHY 202			
		History Sequence	5	0	5
		Physical Education	0	2	1
			11	4	13
Spring Quarter					
ENG	132	Composition, Research, and Documentation	3	0	3
		Science Sequence (Continued)	3	2	4
		BIO 103; CHM 103; PHY 203			
SOC	102	Introduction to Sociology	5	0	5
		Elective	5	0	5
		Physical Education	0	2	1
			16	4	18
SECOND YEAR					
Fall Quarter					
MAT	121	College Algebra I	3	0	3
ENG	109	Public Speaking	5	0	5
		Elective	5	0	5
		Elective	5	0	5
			18	0	18
Winter Quarter					
MAT	122	College Algebra II	3	0	3
		Fine Arts Selection	5	0	5
		Elective	5	0	5
			13	0	13
Spring Quarter					
MAT	123	Trigonometry	3	0	3
ENG	205	Major American Writers or ENG 227	3	0	3
		Elective	5	0	5
		Elective	5	0	5
			16	0	16

Total credit hours required for graduation = 96

ASSOCIATE IN SCIENCE DEGREE

Students who select the Associate in Science degree at Cleveland Community College transfer to senior colleges to pursue such majors as the following:

Accounting	Economics	Optometry
Agriculture	Education	Physics
Biology	Engineering	Pharmacy
Business Administration	Law	Political Sciences
Chemistry	Mathematics	Social Work
Computer Science	Medicine	Textiles
Dentistry	Nursing	Veterinary Medicine

An Associate in Science degree will be granted to the students completing the following requirements:

A. General Education Requirements

1. The completion of no fewer than 96 quarter hours.

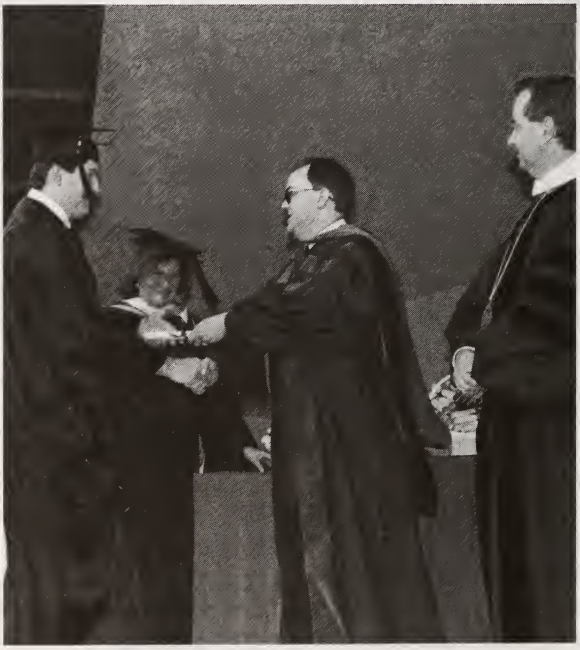
B. Specific Graduation Requirements

1. Completion of 12 quarter hours of skills in communications as verified by the following sequence: ENG 130, 131, 132; ENG 109
2. The completion of at least 6 quarter hours from the following humanities and fine arts courses:
   a. ART 106
   b. MUS 102
   c. ENG 208, 213, 214, 215, 223, 224
   d. REL 104, 105, 106
3. Completion of 19 quarter hours of mathematics: MAT 121, 122, 123, 261, 262
4. Completion of 24 quarter hours of sciences from two of the following sequences of courses:
   a. BIO 101, 102, 103
   b. CHM 101, 102, 103
   c. PHY 201, 202, 203
5. Completion of 13 quarter hours of social science from the following:
   a. HIS 104, 105, 106 or 113, 107
   b. PSY 104, 105, 106, 107, 108, 109, 203, 205, 211, 214, 215
   c. SOC 102, 204, 205
6. Completion of 3 quarter hours of physical education, (usually activity courses), chosen from the following:
   a. Lecture courses: SAF 106; PED 116
   b. Activity courses: PED 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124
   Students with a medical disability may substitute lecture courses for activity courses. (SAF 106 or PED 116)

**Activity courses are recommended for college transfer.*

C. Elective Courses

1. Completion of electives to be selected from any of the following areas:
   a. Humanities (ART 106, 107; DRA 105, 106, 108; ENG 111, 133, 200, 203, 208, 209, 213, 214, 215, 216, 217, 226, 227; MUS 102; PHI 102, 103, 104; REL 104, 105, 106, 201, 202 or 215; SPA 160, 161, 162, 260, 261, 262; REL 215, 216, 217)
   b. Mathematics (MAT 118, 206, 251, 252, 261, 262, 263)
   c. Science (BIO 101, 102, 103, 107, 108, 109, 205, 206; CHM 101, 102, 103; PHY 201, 202, 203; ZOO 201; BOT 202)
   d. Social Science (GEO 101, HIS 104, 105, 106 or 113, 107, 114; PSY 104, 105, 106, 107, 108, 109 203, 208, 211, 214, 215; SOC 204, 205)
   e. Education (EDU 101, 103, 105, 121, 122, 151, 201, 203, 204, 233)
2. Courses used to satisfy graduation requirements may not be used again for elective requirements.



A.S. Pre-Health and Physical Education

I. **Communications** (9 quarter hours) ENG 130, 131, 132

II. **Humanities and Fine Arts** (15 quarter hours)
Public Speaking (5 quarter hours) ENG 109 (required)
Select five quarter hours from the following:
ENG 208, 213, 214, 215, 223, 224
Select five quarter hours (one course) from the following:
ART 106; MUS 102

III. **Mathematics** (9 quarter hours) MAT 121, 122, 123

IV. **Science** (12 quarter hours)
Select three courses from the following: BIO 101, 102, 103; or BIO 107, 108, 109
Other biology, chemistry, and physics courses may be selected in keeping with requirements of the institution to which the student will transfer.

V. **Social Science** (15 quarter hours)
Select one sequence from the following:
HIS 104, 105 or HIS 106/113, 107 and PSY 104 (required)

VI. **Physical Education** (3 quarter hours)
Select three one-hour courses from the following:
PED 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 114, 115, 117, 118, 119, 121, 122, 123, 124 or select one, 3-hour course from the following: NUT 101; PED 116; SAF 106

VII. **Electives (30 quarter hours)**
1. Select one free elective.
2. Select other electives from at least two of the following academic areas:
   a. Humanities and Fine Arts/Education (ART 106, 107, 121, 122, 123, 131, 132, 133, 224, 291, 292, 295; DRA 105, 106, 108, 200, 208; EDU 101, 105, 122, 201, 203, 204, 233; ENG 111, 133, 200, 203, 205 or 227, 208, 209, 213, 214, 215, 216, 217, 223, 224, 226; MUS 102; PHI 102, 103, 104; REL 105, 106, 201, 202 or 215, 216, 217)
   b. Mathematics (MAT 118, 206, 251, 252, 261, 262, 263)
   c. Science (BIO 101, 102, 103, 107, 108, 109, 205, 206; BOT 202; CHM 101, 102, 103, 110; PHY 201, 202, 203)
   d. Social Sciences (GEO 101; HIS 104, 105, 106 or 113, 107, 114; POL 104; PSY 104, 105, 106, 107, 108, 109, 203, 205, 208, 214, 215; SOC 204, 205)
   e. Foreign Language (SPA 160, 161, 162, 260, 261, 262)
   f. Physical Education Activity Courses: PED 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124

Students with a medical disability may substitute lecture courses for activity courses. (SAF 106 or PED 116)

Highly recommended are additional physical education courses and human anatomy and physiology courses.

Courses taken to satisfy graduation requirements may not be used again for elective credit.

SUGGESTED SEQUENCE OF COURSES ASSOCIATE IN SCIENCE - PRE-HEALTH AND PHYSICAL EDUCATION

			HOURS		
			CLASS	LAB	CREDIT
FIRST YEAR					
Spring Quarter					
ENG	130	English Grammar and Composition	3	0	3
BIO	101	Biology I - Principles of Biology	3	2	4
HIS	104	World Civilization I	5	0	5
PSY	104	Introduction to Psychology	5	0	5
PED	121	Physical Education Concepts	1	2	2
			17	4	19
Winter Quarter					
ENG	131	Composition and Introduction to Literature	3	0	3
BIO	107	Anatomy and Physiology I	3	2	4
HIS	105	World Civilization II	5	0	5
PED	116	Personal and Community Health	3	0	3
		Physical Education	0	2	1
			14	4	16
Spring Quarter					
ENG	132	Composition/Research/Documentation	3	0	3
BIO	108	Anatomy and Physiology II	3	2	4
PSY	208	Human Growth and Development	3	0	3
SOC	102	Introduction to Sociology	5	0	5
		Physical Education	0	2	1
			14	4	16
SECOND YEAR					
Fall Quarter					
MAT	121	College Algebra I	3	0	3
ENG	109	Public Speaking	5	0	5
CHM	101	Chemistry I	3	2	4
CAS	101	Introduction to Computer Technology	4	0	4
			15	2	16
Winter Quarter					
MAT	122	College Algebra II	3	0	3
SAF	106	First Aid and Safety	3	0	3
PSY	214	Abnormal Psychology	5	0	5
ENG	210	Effective Communication	3	0	3
		Physical Education	0	2	1
			14	2	15

			HOURS		
			CLASS	LAB	CREDIT
Spring Quarter					
MAT	123	Trigonometry	3	0	3
PSY	215	Infant and Child Psychology	5	0	5
ENG	213	American Literature Survey I	5	0	5
		Physical Education	0	2	1
			13	2	14

Total credit hours required for graduation = 96

A.A. Pre-Science

I. **Communications** (9 quarter hours) ENG 130, 131, 132

II. **Public Speaking** (5 quarter hours) ENG 109

III. **Humanities and Fine Arts** (at least 10 quarter hours)
Select from the following: ENG 205 or 227, 208, 213, 214, 215, 223, 224; ART 106; MUS 102; REL 104, 105, 106

IV. **Mathematics** (19 quarter hours) MAT 121, 122, 123, 261, 262

V. **Science** (24 quarter hours)
Select two of the following sequences:
BIO 101, 102, 103 (4-hour courses)
CHM 101, 102, 103 (4-hour courses)
PHY 201, 202, 203 (4-hour courses)

VI. **Social Science** (at least 10 quarter hours)
HIS 104, 105
PSY 104; SOC 102

VII. **Physical Education** (3 quarter hours)
Select three one-hour courses from the following: PED 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 114, 115, 117, 118, 119, 120, 121, 122, 123, 124
Activity courses are recommended for college transfer.
Students with a medical disability may take SAF 106 or PED 116 (3 hour courses) instead of activity classes.

VIII. **Electives** (16 quarter hours)

1. Elective credit must include CAS 101 and 12 additional hours selected from any of the following areas:
   a. Humanities (ART 106, 107; EDU 101, 103, 105, 121, 122, 201, 203, 204, 233; ENG 111, 203, 205 or 227, 208, 209, 213, 214, 215, 223, 224, 226; PHI 102, 103, 104; REL 104, 105, 106, 202 or 215, 216, 217; SPA 160, 161, 162, 260, 261, 262)
   b. Mathematics (MAT 118, 206, 251, 252, 263)
   c. Science (BIO 101, 102, 103, 107, 108, 205; CHM 101, 102, 103; PHY 201, 202, 203; ZOO 201; BOT 202)
   d. Social Science (GEO 101, HIS 104, 105, 106 or 113, 107, 114; PSY 104, 105, 106, 107, 108, 109, 203, 205, 208, 213, 214, 215; SOC 102, 204, 205)
   e. Foreign Language (SPA 160, 161, 162, 260, 261, 262)
   f. Physical Education Activity Courses: PED 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124
   Students with a medical disability may substitute lecture courses for activity courses (SAF 106 or PED 116)

2. Courses selected will depend upon the student's major area of interest. At least two disciplines must be included. Students must have advisor approval in designing electives.
3. Courses completed to satisfy graduation requirements may not be used again for elective requirements.

SUGGESTED SEQUENCE OF COURSES
ASSOCIATE IN SCIENCE - PRE-SCIENCE

			HOURS		
			CLASS	LAB	CREDIT
FIRST YEAR					
Spring Quarter					
ENG	130	English Grammar and Composition	3	0	3
MAT	121	College Algebra I	3	0	3
		Science Sequence (Select one.)	3	2	4
		BIO 101; CHM 101; PHY 201			
		Social Science Selection (Select one.)	5	0	5
		HIS 104, 105; PSY 104; SOC 102			
		Physical Education	0	2	1
			14	4	16
Winter Quarter					
ENG	131	Composition and Introduction to Literature	3	0	3
MAT	122	College Algebra II	3	0	3
		Science Sequence (Continued)	3	2	4
		BIO 102; CHM 102; PHY 202			
		Social Science Selection	5	0	5
		Physical Education	0	2	1
			14	4	16
Spring Quarter					
ENG	132	Composition/Research/Documentation	3	0	3
ENG	109	Public Speaking	5	0	5
MAT	123	Trigonometry	3	0	3
		Science Sequence (Continued)	3	2	4
		BIO 103; CHM 103; PHY 203			
		Physical Education	0	2	1
			14	4	16
SECOND YEAR					
Fall Quarter					
MAT	261	Calculus I	5	0	5
		Second Science Sequence (Continued)	3	2	4
		Humanities/Fine Arts Selection	5	0	5
			13	2	14
Winter Quarter					
MAT	262	Calculus II	5	0	5
		Second Science Sequence (Continued)	3	2	4
		BIO 102; CHM 102; PHY 202			
		Humanities/Fine Arts Selection	5	0	5
CAS	101	Introduction to Computers	4	0	4
			17	2	18

	HOURS		
	CLASS	LAB	CREDIT
Spring Quarter			
Second Science Sequence	3	2	4
BIO 103; CHM 103; PHY 203			
Electives (12 quarter hours)			
(Students should select the appropriate number of one-hour, three-hour, four-hour, and five-hour courses for a total of 12 quarter hours.)			

Total credit hours required for graduation = 96

Associate in General Education Degree

THE CURRICULUM

The General Education program is designed for the student who is interested in two years of education beyond high school. The required courses in the General Education curriculum provide the basic needs for successful progress toward program objectives. Electives should be chosen in accordance with student interests and ultimate objectives. Students may wish to place heavy emphasis on courses in business, technical, or social areas, depending on their educational or occupational plans.

This program provides a basic core in the following areas:

Communications	9 Quarter Hours
English, Literature, and Fine Arts	15 Quarter Hours
Social/Behavioral Sciences	15 Quarter Hours
Science	12 Quarter Hours
Mathematics	9 Quarter Hours
Physical Education	3 Quarter Hours
Electives	33 Quarter Hours

This introduction into the broad fields of knowledge permits the student to explore self and clarify life goals. With this background one is able to choose additional course work in terms of interests and social needs.

When the student has completed basic education requirements and accumulated electives to a total of 96 quarter hours, an Associate in General Education student should:

1. Demonstrate a comprehensive overview of fine arts and literature and their contribution to humanity.
2. Demonstrate a broad understanding of social and psychological principles and concepts and their influences on group and individual behavior.
3. Understand broad religious and cultural ideas shaping human thought.
4. Understand mathematics and scientific principles and concepts and their application.

A.G.E. General Education

I. **Communications** (9 quarter hours)
ENG 130, 131, 132

II. **Humanities and Fine Arts** (15 quarter hours)
Public Speaking (5 quarter hours) ENG 109 (required)
Select ten quarter hours (two courses) from the following:

ENG	205	Major American Writers or ENG 227 Literature in American Society (Travel)
ENG	208	Masterpieces of World Literature
ENG	213	American Literature Survey I
ENG	214	American Literature Survey II
ENG	215	Southern American Writers
ENG	226	English in Southern Culture/Travel
ART	106	Art Appreciation
ART	107	Film Appreciation
DRA	105	Theatrical Performance
DRA	106	Dramatic Production
DRA	108	Theatre Appreciation
DRA	200	Creative Dramatics
DRA	208	Children's Theatre
MUS	102	Music Appreciation
PHI	102	Introduction to Philosophy or PHI 103 Logic
PHI	103	Logic
PHI	104	Ethics: Problems for a Just Society
REL	104	Major World Religions
REL	105	Old Testament Survey
REL	106	New Testament Survey or REL 215 Religion in American Society (Travel)
REL	201	Philosophy of Religion
REL	202	History of Christianity
REL	216	Religion in Southern Culture/Travel
REL	217	Psychology and Religion

III. **Mathematics** (9 quarter hours)

MAT	121	College Algebra I
MAT	122	College Algebra II
MAT	123	Trigonometry

IV. **Science** (12 quarter hours)
Select one sequence from the following:
BIO 101, 102, 103
CHM 101, 102, 103
PHY 201, 202, 203

V. **Social Science** (15 quarter hours)
Select three courses from the following:

MAT	121	College Algebra I
HIS	104	World Civilization I

HIS	105	World Civilization II
HIS	106	American History I or HIS 113 Politics and Society in Early America (Travel)
HIS	107	American History II
HIS	114	History in Southern Culture/Travel
POL	104	Government in America
POL	204	Great Decisions-Foreign Policy
PSY	104	Introduction to Psychology
PSY	203	Group Processes
PSY	208	Human Growth and Development
PSY	215	Infant and Child Psychology
SOC	102	Introduction to Sociology
SOC	208	Black Studies

VI. Physical Education (3 quarter hours)

Select three one-hour courses from the following:

SOC	208	Black Studies
PED	101	Physical Conditioning I
PED	102	Softball
PED	103	Tumbling
PED	104	Basketball
PED	105	Weight Training
PED	107	Low Impact Aerobics
PED	108	Tennis I
PED	109	Modern Dance
PED	110	Volleyball
PED	111	Golf
PED	112	Physical Conditioning by Circuit Training
PED	113	Tennis II
PED	114	Physical Fitness
PED	115	Self Defense
PED	116	Personal and Community Health
PED	117	Wellness
PED	118	Step Aerobics
PED	119	Combo Aerobics
PED	120	Body Toning
PED	121	Physical Education Concepts
PED	122	Sports Officiating - Football and Soccer
PED	123	Sports Officiating - Basketball and Volleyball
PED	124	Sports Officiating - Baseball and Softball
SAF	106	First Aid and Safety

VII. Electives (33 quarter hours)

Electives include courses in the Associate of Arts programs, the Associate in Science programs, other two-year programs, and various courses including journalism, education, computer technology, and foreign languages.

Also ESL 197, 198, 199, English as a Second Language, Levels I, II, & III

Courses completed to satisfy graduation requirements may not be used again for elective credit.

SUGGESTED SEQUENCE OF COURSES
ASSOCIATE IN GENERAL EDUCATION

			HOURS		
			CLASS	LAB	CREDIT
FIRST YEAR					
Spring Quarter					
ENG	130	English Grammar and Composition	3	0	3
		Science Sequence (Select one.)	3	2	4
		BIO 101; CHM 101; PHY 201			
		Social Science Selection	5	0	5
		Humanities/Fine Arts	5	0	5
		Physical Education	0	2	1
			16	4	18
Winter Quarter					
ENG	131	Composition and Intro to Literature	3	0	3
		Science Sequence (Select one.)	3	2	4
		BIO 102; CHM 102; PHY 202			
		Social Science Selection	5	0	5
		Humanities/Fine Arts Selection	5	0	5
		Physical Education	0	2	1
			14	4	18
Spring Quarter					
ENG	132	Composition/Research/Documentation	3	0	3
		Science Sequence (Continued)	3	2	4
		BIO 103; CHM 103; PHY 203			
		Social Science Selection	5	0	5
		Humanities/Fine Arts Selection	5	0	5
		Physical Education	0	2	1
			16	4	18
SECOND YEAR					
Fall Quarter					
MAT	121	College Algebra I	3	0	3
ENG	109	Public Speaking	5	0	5
		Elective	5	0	5
			13	0	13
Winter Quarter					
MAT	122	College Algebra II	3	0	3
		Elective	5	0	5
		Elective	5	0	5
			13	0	13
Spring Quarter					
MAT	123	Trigonometry	3	0	3
ENG	205	Major American Writers or ENG 227	3	0	3
		Elective	5	0	5
		Elective	5	0	5
			16	0	16

Total credit hours required for graduation = 96

ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAMS

ASSOCIATE IN APPLIED SCIENCE DEGREE ACCOUNTING

The Accounting curriculum is designed to provide students with knowledge and skills necessary for employment and growth in the accounting profession. Often referred to as the "language of business," accounting serves as an informational system for organizations. Accountants assemble, analyze, and communicate essential information about financial operations.

The course of study places emphasis on accounting principles, theories, and practices and includes study in business law, finance, management, and economics. Skills related to the applications of accounting principles are developed through study of communications, computer applications, interpersonal skills development, decision making principles, and ethics.

The curriculum is designed to prepare individuals for entry-level accounting positions in all types of organizations, including CPA firms, small businesses, manufacturing firms, insurance companies, banks, and non-profit organizations such as hospitals, colleges, school systems, and governmental agencies. With work experience and additional education, an individual may advance to positions such as accountant, controller, and auditor.

In the process of successfully completing this program of study, the student will have demonstrated the ability to:

1. Analyze transactions and end-of-period deferral/accrual situations and prepare journal entries.
2. Post journal entries to general ledger accounts and subsidiary ledgers in a manual or computerized accounting system.
3. Be able to develop and carry through the entire accounting process from transaction through entries, income statement, balance sheet, and cash flows.
4. Know generally accepted accounting principles and the concepts and theories underlying the preparation of financial statements.
5. Know the theories and practices of the accounting process for proprietorships, partnerships, and corporations.
6. Be able to handle accounting for inventories using the various cost and procedures and processes which are applied to accounting for equity and debt securities.
7. Know the procedures and processes which are applied to accounting for equity and debt securities.
8. Know the accounting for job order, process and standard cost systems.
9. Prepare income tax returns for individuals and businesses.
10. Know and apply generally accepted auditing standards and the procedures employed in conducting an audit.

COURSE AND HOUR REQUIREMENTS

Major Courses	Credit Hours
ACC 120	6
ACC 121	6
ACC 222	6
ACC 223	6
ACC 224	6
ACC 225	3
ACC 269	3
ACC 229	4
ACC 230	4
BUS 123	4
BUS 124	4
ACC 226	3
Select one of the following:	
ACC 227	6
ACC 291	3
	58-61

Related Courses	Credit Hours
BUS 109	4
ECO 102	5
ECO 104	5
CAS 150	4
CAS 240	4
MAT 121	3
*Select three of the following:	
BUS 115	4
BUS 116	4
BUS 101	4
BUS 219	4
BUS 235	4
ISC 243	4
	37
General Education Courses	
ENG 130	3
ENG 131	3
ENG 132	3
ENG 109	5
HUM 101	3
PSY 208	3
PSY 208	3
	20
Work Experience/Electives	1

Total hours required for graduation = 116-119

SUGGESTED SEQUENCE OF COURSES
ACCOUNTING

			HOURS		
			CLASS	LAB	CREDIT
FIRST YEAR					
Fall Quarter					
ACC	120	Accounting I	4	4	6
BUS	123	Business Finance I	4	0	4
BUS	109	Business Math	4	0	4
		*Elective	4	0	4
			16	4	18
Winter Quarter					
ACC	121	Accounting II	4	4	6
BUS	124	Business Finance II	4	0	4
PSY	208	Human Growth and Development	3	0	3
ACC	229	Taxes I	4	0	4
ENG	130	English Grammar and Composition	3	0	3
			18	4	20

			HOURS		
			CLASS	LAB	CREDIT
Spring Quarter					
ACC	222	Accounting III	4	4	6
ENG	131	Composition and Introduction to Literature	3	0	3
ACC	230	Taxes II	4	0	4
ECO	102	Economics I	5	0	5
		Elective	4	0	4
			20	4	22
SECOND YEAR					
Fall Quarter					
ACC	223	Intermediate Accounting I	4	4	6
ACC	225	Cost Accounting I	2	2	3
ECO	104	Economics II	5	0	5
ENG	109	Public Speaking	5	0	5
		Work Experience	1	0	1
			17	6	20
Winter Quarter					
ACC	224	Intermediate Accounting II	4	4	6
ACC	226	Cost Accounting II	2	2	3
CAS	150	Integrated Spreadsheets	3	2	4
ENG	132	Composition/Research/Documentation	3	0	3
		Elective	4	0	4
			16	8	20
Spring Quarter					
ACC	269	Auditing	3	0	3
CAS	240	Automated Accounting Systems	3	2	4
HUM	101	Dimensions of Human Experience	3	0	3
MAT	121	College Algebra I	3	0	3
ACC	291	Governmental Accounting	3	0	3
		or			
ACC	227	Intermediate Accounting III	4	4	6
			15-16	2-6	16-19

Total credit hours required for graduation = 116-119

ASSOCIATE IN APPLIED SCIENCE DEGREE
ADMINISTRATIVE OFFICE TECHNOLOGY

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.

In the process of successfully completing this program of study, the student will have demonstrated the ability to:

1. Compose and key business correspondence on personal computers and electronic typewriters to produce mailable (error free) typewritten copy from machine transcription and rough draft material.
2. Keyboard, edit, move, format, merge, paginate, and print business correspondence from WordPerfect software on personal computers.
3. Communicate effectively using both oral and written communications. Employ necessary skills, technical information, and judgment required in assisting an executive. Learn to work independently.
4. Demonstrate knowledge of manual record management by filing correspondence by alphabetic, numeric, subject, and geographic filing systems, and exhibiting knowledge of database filing, records storage, transfer, retention, disposal, and filing supplies and equipment.
5. Demonstrate positive human relations and the ability to function as a responsible member of the work force and society. Understand the implications of personal appearance for succeeding in the business world.
6. Perform essential accounting skills used in the accounting cycle of the executive office.

COURSE AND HOUR REQUIREMENTS

Major Courses	Credit Hours
OSC 102	3
OSC 103	3
OSC 104	3
OSC 106	3
OSC 107	3
OSC 108	3
OSC 112	3
OSC 201	3
OSC 205	3
OSC 206E	3
OSC 211	1
OSC 214	3
CAS 106	4
CAS 107	4
ACC 120	6
ACC 121	6
BUS 129	4
	58

Related Courses	Credit Hours
CAS 101	4
CAS 135	4
CAS 150	4
CAS 240	4
BUS 109	4
BUS 204	4
BUS 231	3
BUS 271	4
MAT 121	3
	34

General Education Courses	
ENG 130	3
ENG 131	3
ENG 132	3
ENG 109	5
HUM 101	3
PSY 104	5
	22

Work Experience/Electives 3

Total hours required for graduation = 117

SUGGESTED SEQUENCE OF COURSES
ADMINISTRATIVE OFFICE TECHNOLOGY

			HOURS CLASS	LAB	CREDIT
FIRST YEAR					
Fall Quarter					
OSC	102	Keyboarding/Typewriting	2	2	3
OSC	106	Shorthand I	2	2	3
ENG	130	English Grammar and Composition	3	0	3
OSC	112	Records Management	2	2	3
BUS	271	Office Management	4	0	4
BUS	204	Business Communications	4	0	4
			17	6	20
Winter Quarter					
OSC	103	Document Formatting	2	2	3
PSY	104	Introduction to Psychology	5	0	5
OSC	107	Shorthand II	2	2	3
ENG	131	Composition and Introduction to Literature	3	0	3
BUS	109	Business Math	4	0	4
		Work Experience/Elective	3	0	3
			19	4	21

			HOURS		
			CLASS	LAB	CREDIT
Spring Quarter					
OSC	104	Document Production/Word Processing	2	2	3
OSC	108	Shorthand III	2	2	3
ENG	132	Composition/Research/Documentation	3	0	3
OSC	201	Machine Dictation and Transcription	2	2	3
CAS	150	Integrated Spreadsheets	3	2	4
HUM	101	Dimensions of Human Experience	3	0	3
			15	8	19
SECOND YEAR					
Fall Quarter					
ACC	120	Accounting I	4	4	6
BUS	231	Leadership Development	2	2	3
CAS	135	Desktop Publishing	3	2	4
ENG	109	Public Speaking	5	0	5
OSC	205	Advanced Word Processing Applications I	2	2	3
OSC	206E	Dictation and Transcription I	2	2	3
			18	12	24
Winter Quarter					
ACC	121	Accounting II	4	4	6
CAS	101	Introduction to Computer Technology	4	0	4
BUS	129	Professional Imaging	4	0	4
CAS	106	Word Processing I	3	2	4
			15	6	18
Spring Quarter					
CAS	107	Word Processing II	3	2	4
OSC	214	Administrative Office Procedures	2	2	3
OSC	211	Office Machines	0	2	1
MAT	121	College Algebra I	3	0	3
CAS	240	Automated Accounting Systems	3	2	4
			11	8	15

Total credit hours required for graduation = 117

ASSOCIATE IN APPLIED SCIENCE DEGREE

ASSOCIATE DEGREE NURSING (REGISTERED NURSING)

The Associate Degree Nursing program is offered through the Foothills Nursing Consortium, a cooperative effort of Cleveland Community College, Isothermal Community College and McDowell Technical Community College.

The Associate Degree Nursing curriculum is designed to prepare graduates to integrate the principles and theories of nursing and the sciences 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 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 must take biology, algebra and chemistry courses prior to entering the program.

ADMISSION AND PROGRAM REQUIREMENTS

Courses required to meet graduation requirements in this program are offered during daytime hours.

Graduates of this program will be awarded the Associate in Applied Science Degree in Nursing.

ADMISSION PROCESS - First (Year) Level

All materials must be sent to the Admissions Office of the respective college.

The following requirements must be met **before** applicants will be considered for admission to the ADN program.

1. Complete application.
2. Provide official high school transcript or GED scores.
3. Submit an official transcript(s) from **all** colleges attended. Each transcript must reflect a 2.0 cumulative grade point average on courses accepted for transfer credit.

4. Submit three (3) references (not relatives or close friends). Example: teachers, employers, guidance counselors. **References that are not more than two years old at the time of the general admission requirement deadline will be acceptable.** (Applicants must use forms provided.)
5. Complete placement tests which will be administered at the college. Applicants will be informed of the time and place for the tests. The placement tests consists of Reading, English/Writing Skills, Numerical Skills and Algebra (4 tests). Applicants who have completed college level courses in English and algebra at an accredited college(s) with a grade of "C" or higher are exempt from the tests. Completion of only one of the above will require testing in the other areas. Developmental or enrichment courses completed at an accredited college with a grade of "C" or better may also be considered in determining placement test exemptions. Exemption is also granted for those with (a) a minimum SAT score of 450 verbal and 450 math or (b) an ACT score of 19 or higher.
6. Complete all developmental courses required as a result of placement tests with a grade of "C" or higher.
7. Prerequisite courses: Applicants are required to have completed courses in algebra, chemistry, and biology in high school (complete high school unit) or college with a grade of "C" or higher. If applicants have not taken courses, they must complete them in **college** with a grade of "C" or higher **before** consideration for admission. Algebra may be required from placement scores, even if a high school or college algebra course was successful. Prerequisite courses are not accepted from the Adult High School Diploma Program unless the student is a graduate of the program.

You are responsible for making sure that these requirements have been met and that all materials have been received by the Admissions Office. Admission requirements currently in effect must be completed.

Completion of these requirements will not guarantee admission to the program.

SELECTION PROCESS

8. All seven general admission requirements must be met.
9. If notified by the Admissions Office, eligible applicants report for the PSB-Nursing Aptitude Examination-RN (Fee $10.00). The health form will be provided with the letter of notification for the PSB-RN examination.
10. If indicated, an interview will be scheduled with an admissions counselor and the nursing director/faculty.

11. Final selection for admission is based on a review of the candidate's academic record, test results, interview responses and favorable results of the physical, and emotional examinations. Written notification of acceptance will be sent by the Admissions Office and the ADN director.
    All students accepted into the Associate Degree Nursing program are required to have health insurance.
    All students must provide proof of cardiopulmonary resuscitation (CPR) certification on the first day of class, fall quarter.
    Required Courses: Students may take general/related (non-nursing) courses before acceptance in the nursing program.
    Completion of these courses will help prepare but not guarantee admission into the program.
    Persons admitted to the ADN program are eligible to take the National Council Licensure Examination (NCLEX-RN) which is required to practice as a registered nurse.
    Enrollment in the Associate Degree Nursing program is limited. Applicants are advised to apply early.
    All applications must be updated annually. If one has applied previously, he or she must initiate the process again, including PSB-Nursing Aptitude Exam retesting.
    If there are any questions, contact the Admissions Office at the respective college.

ADMISSION REQUIREMENTS - Second (year) Level

All materials must be sent to the Admissions Office of the respective college.

The following requirements must be met **before** applicants will be considered for admission to the ADN program.

1. Complete application.
2. Provide official high school transcript or GED scores.
3. Submit an official transcript(s) from **all** colleges attended. Each transcript must reflect a 2.0 cumulative grade point average on courses accepted for transfer credit.
4. Complete placement tests which will be administered at the college. Applicants will be informed of the time and place for the tests. The placement tests consists of Reading, English/Writing Skills, Numerical Skills and Algebra (4 tests). Applicants who have completed college level courses in English and algebra at an accredited college(s) with a grade of "C" or higher are exempt from the tests. Developmental or enrichment courses completed at an accredited college with a grade of "C" or better may also be considered in determining placement test exemptions. Exemption is also granted for those with a (a) minimum SAT score of 450 verbal and 450 math or (b) an ACT score of 19 or higher.

5. Complete all developmental courses required as a result of placement tests with a grade of "C" or higher.
6. Prerequisite courses: You are required to have completed courses in algebra, chemistry, and biology in high school (complete high school unit) or college with a grade of "C" or better. If applicants have not taken classes, they must complete them in **college** with a grade of "C" or higher **before** consideration for admission. Algebra may be required from placement test scores, even if a high school or college algebra course was successful.
   *Advance placement students who have completed non-college anatomy and physiology in a practical nurse program, with a grade of "C" or above, will be exempt from a prerequisite biology course.
7. Submit official copy of college, practical nursing or other nursing program transcripts (course syllabi may be required).
8. Submit evidence of current unrestricted license as a practical nurse in the state of North Carolina. The unrestricted license must also be current at the time of acceptance into the program.
9. Submit (3) three references (not relatives or close friends), one of which must be a work reference if applicable. Example: teachers, employers, counselors. References that are not more than two years old at the time of the general admission requirement deadline will be acceptable. (Applicants must use forms provided.)
10. First year non-nursing courses (general/related) and Anatomy and Physiology II must be in progress if series is not completed.

You are responsible for making sure that these requirements have been met and that all materials have been received by the Admissions Office. Admission requirements currently in effect must be completed.

Completion of these requirements will not guarantee admission to the program.

SELECTION PROCESS AND REQUIREMENTS

11. The above criteria must be met to be eligible to take the challenge exam.
12. Report for the challenge exam when notified by the Admissions Office. (Fee $40.00).
13. If eligible the Admissions Office will notify students to report for the PSB-Nursing School aptitude Examination R.N. (Fee ($10.00).
14. If indicated, an interview will be scheduled with an admissions counselor and the Nursing Director/Faculty.
15. If eligible, applicants will be notified of when and where to register for the nursing transition course (NUR 100). Health forms will be provided with notification to register for NUR 100.

16. LPN's must complete the nursing role transition course NUR 100 with a grade of "C" or above prior to summer admission. Anatomy and Physiology III may be taken with NUR 100.
17. Before summer admission, applicants must complete the following first year non-nursing courses with a grade of "C" or above:

ICC	CCC	MTCC
BIO 270	BIO 107	BIO 201
BIO 271	BIO 108	BIO 202
BIO 272	BIO 109	BIO 203
PSY 260	PSY 104	PSY 110 (Prior To 1991)
PSY 261	PSY 208	PSY 111
NUT 160	NUT 101	NUT 101

18. Final selection for admission is based on a review of the candidate's academic record, test results, interview responses and favorable results of the physical and emotional examinations. NUR 100 must also be completed with a grade of "C" or higher. Written notifications of acceptance will be sent by the Admissions Officer and the ADN Director.

APPLICATION DECISION PROCESS FOR FIRST- AND SECOND-YEAR APPLICANTS

Prospective nursing candidates residing in the three-service area counties of North Carolina should apply to their respective colleges. Other applicants may apply to the college of their convenience. Priority will be given to service area applicants first, then other North Carolina residents, then out-of-state residents.

Applications will be accepted as openings occur with priority on the basis of the highest cumulative average on the nursing aptitude exam, the nursing challenge exam, and the interview.

Should openings develop for which no qualified service area applicants are available, priority will be given on the basis of highest scores to qualified applicants from the service areas of the other consortium colleges.*

*Any duplication of scores and completion dates will be resolved on the basis of highest average on prerequisite courses.

Any person completing the admissions requirements and not accepted to the fall or summer class may reapply for admission and request PSB-Nursing School Aptitude Exam-RN retesting the following year. The more recent test score will be used for admission consideration.

Persons reapplying will be considered by the above criteria. Applications must be updated annually.

INTRA-CONSORTIUM TRANSFER/RE-ENTRY POLICY

1. All requests for re-entry into the nursing program must be approved by the Admissions Director and the Nursing Director prior to implementation.
2. Only one re-entry for course failure will be considered between consortium member college or from other nursing programs.
3. Students must remain with the college of entry during the program regardless of residence.

STUDENTS DESIRING ADMITTANCE AND TRANSFER OF CREDITS FROM SCHOOLS OUTSIDE THE CONSORTIUM

Students will comply with the following:

1. Completion of the admission requirements as stated in the Admission Policy - Admission for First Year Students, or Advanced Placement Students.
2. Written notification by the student to the Consortium Director and Admissions Director of the desired college of intent to transfer.
3. Submission of transcripts from former nursing program(s) and other post-secondary work for which the student requests transfer credit.
4. Transcripts are evaluated by the designated individual at the institution and the Consortium Director. They determine course eligibility for transfer credit into the nursing curriculum.
5. Completion of Challenge Exams is required if nursing courses submitted for transfer credit are more than two years old as evidenced by the date of completion of the course(s). See Challenge Exam Policy for requirements.
6. Individual consideration will be determined by the circumstances, admission decision process policies and space availability.

Upon completion of the program graduates will be able to:

1. Utilize the nursing process when caring for individuals.
2. Perform technical skills and practice current technology at a safe level.
3. Function in the role of provider of care, manager of care, and member within the discipline of nursing.
4. Function within a variety of health care settings where there is recourse to supervision from a more experienced, better prepared person (nurse) and where procedures and protocols are established.
5. Be accountable and practice within the ethical and legal framework of nursing.
6. Apply principles of the biological, physical, social and behavioral sciences in performing independent, dependent and interdependent nursing functions.
7. Manage nursing care for patients with common, well-defined health problems.

FOOTHILLS NURSING CONSORTIUM - CURRICULUM PLAN

ASSOCIATE DEGREE NURSING, REGISTERED NURSING (T059)

Cleveland Community College

FIRST YEAR			Hours Per Week			
First Quarter - Fall			Class	Lab	Clinical	Credit
BIO	107	Anatomy and Physiology I	3	2	0	4
NUR	101C	Basic Nursing	5	4	3	8
NUR	102C	Pharmacological Role in Nursing	3	0	0	3
NUT	101	Nutrition and Diet Therapy	3	0	0	3
			14	6	3	18
Second Quarter - Winter						
BIO	108	Anatomy and Physiology II	3	2	0	4
NUR	103C	Nursing Care of Adults I	3	2	9	7
PSY	104	Introduction to Psychology	5	0	0	5
			11	4	9	16
Third Quarter - Spring						
BIO	109	Anatomy and Physiology III	3	2	0	4
PSY	208	Human Growth and Development	3	0	0	3
NUR	104	Nursing Care of Adults II	4	0	12	8
			10	2	12	15
NUR	100	Nursing Role Transition (Offered only to Practical Nursing and Advanced Placement students on demand.)	3	2	0	4
Fourth Quarter - Summer						
BIO	205	Microbiology I	3	2	0	4
NUR	105C	Mental Health Nursing	4	0	12	8
			7	2	12	12

SECOND YEAR			Hours Per Week			
Fifth Quarter - Fall			Class	Lab	Clinical	Credit
ENG	130	Grammar and Composition	3	0	0	3
NUR	201	Nursing Care of Older Adults	4	0	12	8
CAS	108	Computer Literacy - ADN	1	2	0	2
SOC	102	Introduction to Sociology	5	0	0	5
			13	2	12	18
Sixth Quarter - Winter						
		Humanities Elective	3	0	0	3
NUR	202C	Nursing Care of the Child-bearing Family (1/2 quarter)	4	0	6	6
NUR	203C	Nursing Care of Children (1/2 quarter)	4	0	6	6
		Free Elective	3	0	0	3
			14	0	12	18
Seventh Quarter - Spring						
NUR	204	Nursing Care of Adults III	5	0	15	10
NUR	205	Nursing Perspectives and Issues	3	0	0	3
			8	0	15	13
TOTAL CREDIT HOURS:						**110**

A prospective associate degree nursing student may enroll in any course listed above with the exception of those courses with an NUR prefix. SPECIAL NOTE: Science courses (BIO 107, 108, 109, 205, 206) require a grade of "C" or better and may be repeated only once.

ASSOCIATE IN APPLIED SCIENCE DEGREE
BUSINESS ADMINISTRATION

The Business Administration provides a broad education in business principles and practices. This curriculum is designed to prepare individuals for entry-level business positions.

In this program of study, the student will gain knowledge of basic business principles and concepts through a study of management functions, marketing, accounting and finance, economics, human resources development, and legal and ethical aspects of business. Skills related to the applications of these business principles are developed through study of communications, mathematics, computer applications, and decision-making principles.

Additional training through practice in classroom activities which develop team-building skills will prepare graduates to function as contributing members of management teams. Graduates may find employment in large and small businesses, not-for-profit service organizations, government agencies, and financial institutions.

In the process of successfully completing this program of study, the student will have demonstrated the ability to:

1. Understand how the various statutes, codes and regulations which form today's legal environment affect the operation of business.
2. Understand the nature of the economic environment and be able to apply this understanding to the operation of the business.
3. Acquire a basic understanding of the federal and state tax systems and how they affect the operations of business.
4. Develop self-confidence and leadership skills.
5. Be able to express concepts and ideas to other people by use of oral and written communications.
6. Understand markets and market research and the basic marketing concepts of products, price, promotion and distribution in order to succeed in reaching all consumers with products, services, and ideas.
7. Be able to perform basic tasks on the various machines found in a modern office and have a fundamental knowledge of keyboarding.
8. Acquire some knowledge of basic accounting procedures to enable the learner to keep records of business operations to satisfy the requirements of tax agencies, and to determine the success or failure of business procedures.
9. Understand financial statements and perform other simple analysis of the information.

COURSE AND HOUR REQUIREMENTS

Major Courses	Credit Hours
ACC 229	4
ACC 230	4
BUS 101	4
BUS 115	4
BUS 116	4
BUS 219	4
BUS 123	4
BUS 124	4
BUS 233	4
BUS 235	4
CAS 240	4
ECO 102	5
ECO 104	5
MKT 239	4
	58

Related Courses	Credit Hours
CAS 150	4
ACC 120	6
ACC 121	6
ACC 122	6
MAT 121	3
BUS 204	4
BUS 109	4
Select one of the following:	
CAS 101	4
BUS 290	4
BUS 231	3
OSC 102	3
ACC 291	3
ISC 243	4
	36-37
General Education Courses	
ENG 130	3
ENG 131	3
ENG 132	3
ENG 109	5
HUM 101	3
PSY 208	3
	20
Work Experience/Elective	3

Total credit hours required for graduation = 117-118

SUGGESTED SEQUENCE OF COURSES
BUSINESS ADMINISTRATION

			HOURS CLASS	LAB	CREDIT
FIRST YEAR					
Fall Quarter					
ACC	120	Accounting I	4	4	6
BUS	109	Business Math	4	0	4
BUS	115	Business Law I	4	0	4
BUS	101	Introduction to Business	4	0	4
			16	4	18
Winter Quarter					
ACC	121	Accounting II	4	4	6
ACC	229	Taxes I	4	0	4
BUS	116	Business Law II	4	0	4
BUS	235	Business Management	4	0	4
ENG	130	English Grammar and Composition	3	0	3
			19	4	21

			HOURS		
			CLASS	LAB	CREDIT
Spring Quarter					
ACC	222	Accounting III	4	4	6
ENG	131	Composition and Introduction to Literature	3	0	3
ACC	230	Taxes II	4	0	4
BUS	204	Business Communications	4	0	4
CAS	240	Automated Accounting Systems	3	2	4
			18	6	21
SECOND YEAR					
Fall Year					
BUS	233	Human Resources Management	4	0	4
ENG	132	Composition/Research/Documentation	3	0	3
BUS	123	Business Finance I	4	0	4
CAS	150	Integrated Spreadsheets	3	2	4
ECO	102	Economics I	5	0	5
			19	2	20
Winter Quarter					
PSY	208	Human Growth and Development	3	0	3
BUS	219	Credit Procedures and Problems	4	0	4
BUS	124	Business Finance II	4	0	4
ECO	104	Economics II	5	0	5
		Elective	3-4	0	3-4
			19-20	0	19-20
Spring Quarter					
ENG	109	Public Speaking	5	0	5
MKT	239	Marketing	4	0	4
HUM	101	Dimensions of Human Experience	3	0	3
MAT	121	College Algebra I	3	0	3
		Elective	3	0	3
			18	0	18

Total credit hours required for graduation = 117-118

ASSOCIATE IN APPLIED SCIENCE DEGREE
COMMUNICATIONS TECHNOLOGY

The Communications Technology curriculum prepares individuals to enter the communications field in industry or education. Students will acquire technical and professional experiences in various aspects of media production.

Graduates may be employed as media technicians by industrial education departments, libraries, public schools, community colleges, universities, medical centers or other educational facilities. The program will provide students with a broad range of skills from which they may choose to specialize. Technicians may have duties including photography, graphic arts, producing, directing, equipment maintenance and others.

Upon successful completion of the program Communications Technology students will have the ability to:

1. Demonstrate the use of equipment in correct procedure and technique in producing composition.
2. Perform the use of the studio equipment for production, titling, effects, lighting, and audio.
3. Demonstrate knowledge of the various formats for effective writing for radio, television, newspaper, and script writing.
4. Demonstrate knowledge of the history of the media development and the means of informing and influencing the public views.
5. Demonstrate knowledge of the performance of the complete videotaping of a production.
6. Understand mechanical and electrical operations of equipment for locating, troubleshooting, maintenance, and minor repair to equipment.
7. Demonstrate knowledge of and the ability to perform computer-generated television images, from titling to animation.
8. Demonstrate knowledge of the legal and moral principles that have influenced and continue to influence conduct in media communication.

COURSE AND HOUR REQUIREMENTS

Major Courses	Credit Hours
RTV 100	4
RTV 101	4
RTV 102	3
RTV 103	4
RTV 104	3
RTV 200	4
RTV 201	5
RTV 202	4
RTV 205	3
RTV 206	3
RTV 207	4
RTV 208	3
PHO 101	3
PHO 102	3
RTV 118	3
	53

Related Courses	Credit Hours
ART 121	3
ART 107	5
Choose 1:DRA 105 or DRA 106 or DRA 208	3
CAS 101	4
ELN 100	4
OSC 102	3
MAT 118	5
DRA 200	1
	28
General Education Courses	3
ENG 130	3
ENG 131	3
ENG 132	5
ENG 109	5
SOC 102	5
	19
Work Experience/Elective	6

Total hours required for graduation = 106

SUGGESTED SEQUENCE OF COURSES COMMUNICATIONS TECHNOLOGY

			HOURS CLASS	LAB	CREDIT
FIRST YEAR					
Fall Quarter					
ELN	100	Introduction to Electronics	4	0	4
SOC	102	Introduction to Sociology	5	0	5
RTV	100	Introduction to TV and Cable Production	3	2	4
RTV	118	Basic Film Technology	2	2	3
ENG	130	English Grammar and Composition	3	0	3
			17	4	19
Winter Quarter					
ENG	131	Composition and Introduction to Literature	3	0	3
RTV	101	Advanced TV and Cable Production	3	2	4
RTV	103	Media Writing	3	2	4
CAS	101	Introduction to Computer Technology	4	0	4
MAT	118	Statistics	5	0	5
			18	4	20
Spring Quarter					
ENG	132	Composition/Research/Documentation	3	0	3
OSC	102	Keyboarding/Typewriting	2	2	3
ART	121	Drawing I	2	2	3
RTV	102	Intro to AV Equipment & Basic Production	2	2	3
RTV	104	Introduction to Mass Communications	3	0	3
		Elective	3	0	3
			15	6	18

			HOURS CLASS	LAB	CREDIT
SECOND YEAR					
Fall Quarter					
ART	107	Film Appreciation	5	0	5
RTV	207	Video Graphics	3	2	4
PHO	101	Fundamentals of Photography	2	2	3
RTV	200	Media Production I	3	2	4
Choose one of the following:					
DRA	105	Theatrical Performance	2	2	3
	or				
DRA	106	Dramatic Production	2	2	3
	or				
DRA	208	Children's Theatre	3	0	3
			15	8	19
Winter Quarter					
PHO	201	Introduction to Color Printing	2	2	3
RTV	201	Media Production/Lab Project	0	10	5
RTV	205	Equipment Repair	2	2	3
RTV	208	Law and Ethics	3	0	3
			7	14	14
Spring Quarter					
RTV	202	Media Production II	3	2	4
RTV	206	Lighting and Sound	2	2	3
ENG	109	Public Speaking	5	0	5
DRA	200	Creative Dramatics	1	0	1
		Elective	3	0	3
			14	4	16

Total credit hours required for graduation = 106

ASSOCIATE IN APPLIED SCIENCE DEGREE
CRIMINAL JUSTICE-PROTECTIVE SERVICE TECHNOLOGY

The Criminal Justice program is designed to prepare individuals for entry-level positions in law enforcement and other criminal justice fields and to upgrade the skills of those who are currently employed and seek promotion.

All criminal justice students take courses in psychology, sociology, and criminology in an effort to understand the causes, prevention, and correction of crime in our society.

Many graduates transfer credits to four-year colleges and universities to prepare for careers in criminal justice management, probation and parole, and law.

The Criminal Justice program prepares individuals to apply social science concepts and analytical methods to the complex and rapidly changing system of justice and social control. The development of a broad understanding of the system and general decision-making and problem-solving skills is intended to assist the student in dealing with problems in criminal justice agencies.

Cleveland Community College has chosen to offer the "generalist model."

Upon program completion of the program, the student will be able to:

1. State the functions, responsibilities, and general legal parameters of the criminal justice system, including the courts, corrections, and law enforcement.
2. Perform the tasks of the basic investigator.
3. Perform tasks required of a law enforcement patrol officer.
4. Demonstrate a basic working knowledge of criminalistics.
5. Perform writing skills using correct diction and style as they apply to the work place and society.

COURSE AND HOUR REQUIREMENTS

Major Courses	Credit Hours
CJC 120	5
CJC 121	5
CJC 122	3
CJC 123	5
CJC 124	5
CJC 125	5
CJC 126	5
CJC 231	5
CJC 232	5
CJC 233	5
CJC 234	5
CJC 235	5
CJC 236	5
CJC 237	3
	66

Related Courses	Credit Hours
POL 104	5
MAT 121	3
CAS 101	4
CAS 102	4
SOC 204	5
Choose 7 hours from the following Related Course Electives:	
CJC 190	3
CJC 191	3
CJC 192	3
CJC 193	3
BIO 101	4
CHM 100	3
SPA 160	4
PHO 101	3
CJC 238	4
CJC 239	5
	28

General Education Courses	
ENG 130	3
ENG 131	3
ENG 132	3
ENG 109	5
PSY 104	5
SOC 102	5
	24

Work Experience/and/or Internship and/or Free Elective	1
(Student may have a total of 3 credit hours)	

Total hours required for graduation = 119

Note: Course credit may be given for BLET completion. The courses will not, however, transfer on to a four-year college or university. Standard example follows:

		Credit Hours
CJC 122	Substance Abuse	3
CJC 190	Criminal·Investigations I	3
CJC 191	Criminal Investigations II	3
CJC 192	Intro to Criminalistics	3
CJC 193	Correctional Law	3

SUGGESTED SEQUENCE OF COURSES
CRIMINAL JUSTICE/PROTECTIVE SERVICE TECHNOLOGY

			HOURS		
			CLASS	LAB	CREDIT
FIRST YEAR					
Fall Quarter					
CJC	120	Introduction to Criminal Justice	5	0	5
CJC	121	Criminology	5	0	5
POL	104	Government in America	5	0	5
ENG	130	English Grammar and Composition	3	0	3
			18	0	18
Winter Quarter					
CJC	122	Substance Abuse	3	0	3
CJC	123	Juvenile Delinquency	5	0	5
CJC	124	Criminal Law	5	0	5
ENG	131	Composition and Introduction to Literature	3	0	3
		Elective*	4	0	4
			20	0	20
Spring Quarter					
CJC	125	Constitutional Law	5	0	5
CJC	126	Community Relations and Ethics	5	0	5
ENG	132	Composition/Research/Documentation	3	0	3
SOC	102	Introduction to Sociology	5	0	5
		Elective*	3	0	3
			21	2	21
SECOND YEAR					
Fall Quarter					
CJC	231	Introduction to Law Enforcement	5	0	5
CJC	232	Crisis Intervention and Management	5	0	5
CAS	101	Introduction to Computer Technology	4	0	4
MAT	121	College Algebra I	3	0	3
			17	0	17
Winter Quarter					
CJC	233	Introduction to Corrections	5	0	5
CJC	234	Criminal Justice Organ./Supervision	5	0	5
CAS	102	Microcomputer Applications	4	0	4
ENG	109	Public Speaking	5	0	5
SOC	204	Marriage and Family	5	0	5
			24	0	24
Spring Quarter					
CJC	235	Counseling	5	0	5
CJC	236	Security, Protection, and Loss Control	5	0	5
CJC	237	Seminar in Criminal Justice Issues	3	0	3
PSY	104	Introduction to Psychology	5	0	5
		Work Experience/Internship/Electives*	1-2	0	1
			19-20	0	19

			HOURS		
			CLASS	LAB	CREDIT
***Choose 7 hours from the following Suggested Electives:**					
BIO	101	Biology I - Principles of Biology	3	2	4
CHM	101	Chemistry - An Introduction	2	2	3
CJC	190	Criminal Investigations I	3	0	3
CJC	191	Criminal Investigations II	3	0	3
CJC	192	Introduction to Criminalistics	2	2	3
CJC	193	Correctional Law	3	0	3
SPA	160	Fundamentals of Spanish I	3	2	4
PHO	101	Fundamentals of Photography	2	2	3
CJC	238	Correctional Issues	4	0	4
CJC	239	Courts & Judicial Process	5	0	5

Totals credit hours required for graduation = 119

ASSOCIATE IN APPLIED SCIENCE DEGREE
EARLY CHILDHOOD ASSOCIATE

The Early Childhood Associate curriculum is designed to prepare individuals to work with children in learning environments from infancy through middle childhood. The program of study includes the subjects of child growth and development, physical and nutritional needs of children, care and guidance of children and communication with children and their parents. Students learn to foster the cognitive/language, physical/motor, and social/emotional development of children. The program of study combines theories and principles with opportunities for supervised practice.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities are available in child development and child care programs, preschools, public and private schools, recreational centers, kindergartens, some Head Start programs, and programs for children with special needs.

In the process of successfully completing this program of study, the student will have demonstrted the ability to:

1. Maintain a cooperative and professional relationship with school/child care center personnel, community agencies, and parents.
2. Follow local, state, and federal policies and procedures concerning child care regulations.
3. Select developmentally appropriate materials for implementing instructional activities.
4. Maintain a well-planned environment that contributes to, inclusion of special needs children, cultural diversity, and positive self-concept for all children.

COURSE AND HOUR REQUIREMENTS

Major Courses	Credit Hours
EDU 123	3
EDU 124 or EDU 134	3
EDU 110	2
EDU 126	3
EDU 125	5
EDU 211	3
EDU 215	3
EDU 216	5
EDU 217	5
EDU 225	3
EDU 220	2
EDU 223	3
EDU 230	4
EDU 231	5
EDU 232	3
EDU 233	3
PSY 208	3
PSY 215	5
	63

Related Courses	Credit Hours
SAF 106	3
MAT 121	3
NUT 110	3
CAS 101	4
RTV 102	3
ENG 109	5
Choose one elective from the following:	3-5
BUS 123	
CAS 102	
DRA 208	
MUS 102	
SOC 204	
SOC 208	24-26
General Education Courses	
ENG 130	3
ENG 131	3
PSY 104	5
SOC 102	5
Humanities Elective	3
	19
Free Elective	3

Total credit hours required for graduation = 109-111

SUGGESTED SEQUENCE OF COURSES
EARLY CHILDHOOD ASSOCIATE

			HOURS CLASS	LAB	CREDIT
FIRST YEAR					
Fall Quarter					
EDU	123	Child Care Credential I	3	0	3
EDU	126	Child, Health, Safety and Nutrition	3	0	3
PSY	104	Introduction to Psychology	5	0	5
PSY	208	Human Growth and Development	3	0	3
MAT	121	College Algebra I	3	0	3
			17	0	17
Winter Quarter					
EDU	125	Creative Activities in Early Childhood	5	0	5
EDU	215	Classroom Management	3	0	3
EDU	233	Children's Literature Survey	3	0	3
EDU	210	Seminar Practicum: Preschool Environment	1	10	2
NUT	110	Early Childhood Nutrition	3	0	3
Choose One:					
EDU	124	Child Care Credential II	3	0	3
EDU	134	Family Care Credential II	3	0	3
			21	10	19

			HOURS		
			CLASS	LAB	CREDIT
Spring Quarter					
EDU	225	Children with Special Needs	3	0	3
EDU	220	Seminar Practicum: Special Needs Children	1	10	2
EDU	211	Infant/Toddler Development and Activities	3	0	3
ENG	109	Public Speaking	5	0	5
PSY	215	Infant and Child Psychology	5	0	5
			17	10	18
SECOND YEAR					
Fall Quarter					
EDU	223	Working with the Child's Family and Community	3	0	3
EDU	217	Exploration Activities in Early Childhood	5	0	5
ENG	130	English Grammar and Composition	3	0	3
SOC	102	Introduction to Sociology	5	0	5
		Related Elective			3-5
			16	0	19-21
Winter Quarter					
EDU	231	Early Childhood Curriculum Planning	5	0	5
EDU	216	Communication Activities in Early Childhood	5	0	5
RTV	102	Intro to AV Equipment and Basic Production	2	2	3
CAS	101	Introduction to Computer Technology	4	0	4
			16	0	17
Spring Quarter					
EDU	232	Child Care Administration	3	0	3
ENG	131	Composition and Introduction to Literature	3	0	3
SAF	106	First Aid and Safety	3	0	3
EDU	230	Internship	2	20	4
		Humanities Elective	3	0	3
		Free Elective	3	0	3
			17	20	19

Total credit hours required for graduation = 109-111

ASSOCIATE IN APPLIED SCIENCE DEGREE
ELECTRONICS ENGINEERING TECHNOLOGY

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

Upon successful completion the student will demonstrate the ability to:

1. Design and build circuits that include semiconductor devices, Zener diodes, transistors, SCRs, and Triacs.
2. Use basic test equipment and measuring instruments.
3. Design, build, and analyze circuits with operational amps, microprocessor chips, RAM, and PROM.
4. Use a personal computer to solve problems relating to circuit layout, design, and analysis.
5. Perform basic electronic experiments and present the results in an accurate, well-written technical report.

COURSE AND HOUR REQUIREMENTS

Major Courses	Credit Hours
ELN 112	4
ELN 113	4
ELN 114	4
ELN 115	4
DFT 112	4
ELN 121	4
ELN 122	4
ELN 123	4
ELN 208	4
ELN 218	4
ELN 219	4
ELN 235	4
ELN 242	4
ELN 243	4
ELN 249	4
ELN 246	4
ELN 251	4
	68

Related Courses	Credit Hours
CAS 140	4
MAT 102	4
MAT 121	3
MAT 122	3
MAT 123	3
PHY 201	4
PHY 202	4
PHY 203	4
CAS 102	4
	33
General Education Courses	
ART 106	5
ENG 130	3
ENG 103	3
ENG 109	5
PSY 104	5
	21
Work Experience/Electives	0

Total credit hours required for graduation = 122

SUGGESTED SEQUENCE OF COURSES
ELECTRONICS ENGINEERING TECHNOLOGY

			HOURS		
			CLASS	LAB	CREDIT
FIRST YEAR					
Fall Quarter					
ELN	112	Electronics Fundamentals I	3	2	4
ELN	218	Logic Fundamentals	3	2	4
MAT	102	Introduction to Algebra	4	0	4
ENG	130	English Grammar and Composition	3	0	3
			13	4	15
Winter Quarter					
ELN	113	Electronics Fundamentals II	3	2	4
ELN	219	Pulse and Logic Circuits	3	2	4
MAT	121	College Algebra I	3	0	3
CAS	102	Microcomputer Applications	4	0	4
			13	4	15
Spring Quarter					
ELN	114	Active Devices	3	2	4
ELN	123	Introduction to Microprocessors	3	2	4
MAT	123	Trigonometry	3	0	3
ENG	103	Report Writing	3	0	3
			12	4	14
Summer Quarter					
ELN	242	Electronic Systems I	3	2	4
ELN	121	Electronic Circuits I	3	2	4
MAT	122	College Algebra II	3	0	3
			9	4	11
SECOND YEAR					
Fall Quarter					
ELN	122	Electronic Circuits II	3	2	4
ELN	243	Electronic Systems II	3	2	4
PHY	201	Physics I	3	2	4
PSY	104	Introduction to Psychology	5	0	5
			14	6	17
Winter Quarter					
DFT	112	Computer Aided Drafting for Electronics	3	2	4
ELN	208	Industrial Electronics	3	2	4
PHY	202	Physics II	3	2	4
ART	106	Art Appreciation	5	0	5
ELC	115	Rotary Machines and Control	3	2	4
			17	8	21
Spring Quarter					
ELN	235	Industrial Instrumentation	3	2	4
ELN	251	Programmable Logic Controller	3	2	4
PHY	203	Physics III	3	2	4
ENG	109	Public Speaking	5	0	5
			14	6	17

			HOURS		
			CLASS	LAB	CREDIT
Summer Quarter					
ELN	246	Electronic Systems Project	3	2	4
ELN	249	Electronic Technique and Problem Solving	3	2	4
CAS	140	Hardware Maintenance and Installation	3	2	4
			9	6	12

Total credit hours required for graduation = 122

ASSOCIATE IN APPLIED SCIENCE DEGREE
FASHION MERCHANDISING AND MARKETING

The Fashion Merchandising and Marketing curriculum is designed to provide individuals with fundamental and transferable skills in fashion merchandising and marketing activities. The individual will become familiar with various areas and the components that make the fashion industry and study the principals that apply to marketing. Emphasis will be placed on merchandising technique, visual merchandising, marketing, buying, selling, human resource management, stock planning and pricing special events, promotional activities, and textiles.

Employment opportunities as assistant buyers, fashion coordinator, fashion stylist, display specialist, merchandise and store managers or owners exist within department store and specialty shops. Other areas of employment are the wholesale and manufacturing industry, buying resource management.

In the process of successfully completing this program of study, the student will have demonstrated the ability to:

1. Coordinate a line of garments, calculate the construction cost and the promotional needs.
2. Know generally the principles and concepts and the theories involved in consumer behavior and fashion merchandising.
3. Generate a promotional plan for a budget, business, or season.
4. Analyze and forecast trends, using knowledge of the history of fashion.
5. Prepare a six-month buying plan that corresponds to the past records and projected profit and promotional needs.
6. Organize and produce special events in a logical, well planned manner.

COURSE AND HOUR REQUIREMENTS

Major Courses	Credit Hours
MKT 101	4
MKT 102	3
MKT 220	4
MKT 223	4
MKT 106	4
MKT 110	3
MKT 260	4
MKT 210	4
MKT 218	4
MKT 239	4
MKT 245	4
MKT 219	4
BUS 129	4
BUS 127	4
	54

Related Courses	Credit Hours
MKT 111	3
ART 106	5
OSC 102	3
BUS 233	4
ECO 102	5
CAS 101	4
CAS 102	4
MAT 118	5
BUS 128	4
	37
General Education Courses	
ENG 130	3
ENG 131	3
ENG 132	3
ENG 109	5
SOC 102	5
	19

Total hours required for graduation = 110

SUGGESTED SEQUENCE OF COURSES
FASHION MERCHANDISING AND MARKETING

			HOURS CLASS	LAB	CREDIT
FIRST YEAR					
Fall Quarter					
MKT	101	Principles of Fashion Merchandising	4	0	4
MKT	102	Modeling and Social Usage	2	2	3
ENG	130	English Grammar and Composition	3	0	3
CAS	101	Introduction to Computer Technology	4	0	4
OSC	102	Keyboarding and Typewriting	2	2	3
			15	4	17
Winter Quarter					
MKT	260	Visual Merchandising	4	0	4
MKT	223	Development and Psychology of Dress	4	0	4
MAT	118	Statistics	5	0	5
ART	106	Art Appreciation	5	0	5
			18	0	18
Spring Quarter					
MKT	106	Fabric Science	4	0	4
MKT	110	Bridal Consulting	3	0	3
MKT	111	Menswear	3	0	3
ENG	131	Composition and Introduction to Literature	3	0	3
ENG	109	Public Speaking	5	0	5
			18	0	18

			HOURS CLASS	LAB	CREDIT
SECOND YEAR					
Fall Quarter					
MKT	210	Fashion Advertising and Sales Promotion	4	0	4
MKT	220	Elements of Fashion Designing	4	0	4
ENG	132	Composition/Research/Documentation	3	0	3
CAS	102	Microcomputer Applications	4	0	4
SOC	102	Introduction to Sociology	5	0	5
			20	0	20
Winter Quarter					
MKT	218	Fashion Buying	4	0	4
BUS	129	Professional Imaging	4	0	4
MKT	245	Retailing	4	0	4
BUS	127	REAL - Small Business I	4	0	4
ECO	102	Economics I	5	0	5
			21	0	21
Spring Quarter					
BUS	128	REAL - Small Business II	4	0	4
BUS	233	Human Resources Management	4	0	4
MKT	239	Marketing	4	0	4
MKT	219	Industry Exploration	4	0	4
			16	0	16

Total hours required for graduation = 110

ASSOCIATE IN APPLIED SCIENCE DEGREE
GENERAL OFFICE

The purposes of the General Office curriculum are to prepare the individual to enter clerical office occupations, provide an educational program for individuals wanting education for upgrading (moving from one position to another) or retraining (moving from present position to a clerical position) and provide an opportunity for individuals wanting to fulfill professional or general interest needs.

These purposes will be fulfilled through skill development in the areas of keyboarding, records management and automated office equipment. Through these skills and through development of personal competencies and qualities, the individual will be able to function effectively in office-related activities.

In the process of successfully completing this program of study, the student will have demonstrated the ability to:

1. Compose and key business correspondence on personal computers or word processing equipment and produce mailable (error free) copy from machine transcription and rough draft material.
2. Perform essential secretarial accounting skills used in the accounting cycle of an executive office.
3. Demonstrate positive human relations and the ability to function as a responsible member of the work force and society. Understand the implications of personal appearance for succeeding in the business world.
4. Produce accurate correspondence by keying, editing, page numbering, creating tabulations, storing and merging from WordPerfect software on personal computers.
5. Communicate effectively using both oral and written communications. Learn to work independently.
6. Demonstrate knowledge of manual record management by filing correspondence by alphabetic, numeric, subject, and geographical filing systems, and exhibiting knowledge of storage records, transferring, and filing supplies and equipment.

COURSE AND HOUR REQUIREMENTS

Major Courses	Credit Hours
OSC 102	3
OSC 103	3
OSC 104	3
OSC 112	3
OSC 201	3
OSC 205	3
OSC 211	1
OSC 214	3
CAS 106	4
CAS 107	4
CAS 150	4
BUS 271	4
ACC 120	6
ACC 121	6
BUS 129	4
	54

Related Courses	Credit Hours
BUS 109	4
BUS 204	4
CAS 240	4
CAS 101	4
BUS 231	3
CAS 135	4
BUS 101	4
MAT 121	3
	30
General Education Courses	
ENG 130	3
ENG 131	3
ENG 132	3
ENG 109	5
HUM 101	3
PSY 104	5
	22
Work Experiences/Electives	4

Total hours required for graduation = 110

SUGGESTED SEQUENCE OF COURSES
GENERAL OFFICE

			HOURS		
			CLASS	LAB	CREDIT
FIRST YEAR					
Fall Quarter					
OSC	102	Keyboarding/Typewriting	2	2	3
BUS	101	Introduction to Business	4	0	4
ENG	130	English Grammar and Composition	3	0	3
OSC	112	Records Management	2	2	3
CAS	101	Introduction to Computer Technology	4	0	4
BUS	204	Business Communications	4	0	4
			19	4	21
Winter Quarter					
OSC	103	Document Formatting	2	2	3
PSY	104	Introduction to Psychology	5	0	5
CAS	150	Integrated Spreadsheets	3	2	4
ENG	131	Composition and Introduction to Literature	3	0	3
BUS	109	Business Math	4	0	4
			17	4	19
Spring Quarter					
OSC	104	Document Production/Word Processing	2	2	3
ENG	132	Composition/Research/Documentation	3	0	3
OSC	201	Machine Dictation and Transcription	2	2	3
ENG	109	Public Speaking	5	0	5
HUM	101	Dimensions of Human Experience	3	0	3
			15	4	17

			HOURS		
			CLASS	LAB	CREDIT
SECOND YEAR					
Fall Quarter					
ACC	120	Accounting I	4	4	6
BUS	271	Office Management	4	0	4
CAS	135	Desktop Publishing	3	2	4
OSC	205	Advanced Word Processing Applications I	2	2	3
			13	8	17
Winter Quarter					
ACC	121	Accounting II	4	4	6
BUS	231	Leadership Development	2	2	3
CAS	106	Word Processing I	3	2	4
		Elective	4	0	4
			13	8	17
Spring Quarter					
OSC	214	Administrative Office Procedures	2	2	3
OSC	211	Office Machines	0	2	1
BUS	129	Professional Imaging	4	0	4
MAT	121	College Algebra I	3	0	3
CAS	107	Word Processing II	3	2	4
CAS	240	Automated Accounting Systems	3	2	4
			15	8	19

Total credit hours required for graduation = 110

ASSOCIATE IN APPLIED SCIENCE DEGREE
MEDICAL OFFICE TECHNOLOGY

This curriculum prepares the individuals to enter the medical secretarial profession. The medical secretary performs secretarial duties utilizing the knowledge of medical terminology and medical office and/or laboratory procedures.

Skills are taught in processing medical documents using computerized functions and/or manual functions. Compiling and recording medical charts, reports, case histories, and correspondence using the electronic typewriter or automated office equipment, scheduling appointments, and preparing and sending bills to patients are duties that are performed in the medical office and are taught in this curriculum.

Graduates of the curriculum may find employment opportunities with medical supply and equipment manufacturers, medical laboratories, the office of physicians, hospitals, and other medical care providers.

In the process of successfully completing this program of study, the student will have demonstrated the ability to:

1. Type business correspondence and produce accurate medical reports and forms on electronic typewriters and personal computers from shorthand notes and transcription machines.
2. Produce accurate medical reports and correspondence by keyboarding, editing, paginating, creating tabulations, storing paragraphs and executing mail merges from WordPerfect software on personal computers.
3. Communicate effectively using both oral and written communications. Employ necessary skills, technical information, and judgment required in assisting a physician. Learn to work independently.
4. Demonstrate knowledge of manual record management by filing correspondence by alphabetic, numeric, subject, and geographic filing systems, and exhibiting knowledge of database filing, records storage, transfer, retention, disposal, filing supplies, and equipment.
5. Demonstrate positive human relations, and function as a responsible member of the work force and society. Understand the implications of personal appearance for succeeding in the business world.
6. Perform essential accounting skills used in the accounting cycle of a medical office.
7. Produce accurate health code books, and follow up on delinquent accounts.

COURSE AND HOUR REQUIREMENTS

Major Courses	Credit Hours
OSC 102	3
OSC 103	3
OSC 104	3
OSC 106	3
OSC 107	3
OSC 108	3
OSC 112	3
OSC 183M	4
OSC 202M	3
OSC 203M	3
OSC 205	3
OSC 206E	3
OSC 211	1
OSC 216	3
OSC 284M	4
BUS 129	4
BUS 204	4
BUS 271	4
CAS 160	4
	61

Related Courses	Credit Hours
BUS 109	4
ACC 120	6
ACC 121	6
CAS 150	4
OSC 248	3
CAS 101	4
CAS 240	4
MAT 121	3
	34
General Education Courses	
ENG 130	3
ENG 131	3
ENG 132	3
ENG 109	5
HUM 101	3
PSY 104	5
	22
Work Experience/Electives	3

Total credit hours required for graduation = 120

SUGGESTED SEQUENCE OF COURSES
MEDICAL OFFICE TECHNOLOGY

			HOURS CLASS	HOURS LAB	HOURS CREDIT
FIRST YEAR					
Fall Quarter					
OSC	183M	Medical Terminology and Vocabulary I	4	0	4
OSC	106	Shorthand I	2	2	3
BUS	204	Business Communications	4	0	4
OSC	102	Keyboarding/Typewriting	2	2	3
ENG	130	English Grammar and Composition	3	0	3
OSC	112	Records Management	2	2	3
			17	6	20
Winter Quarter					
OSC	284M	Medical Terminology and Vocabulary II	4	0	4
ENG	131	Composition and Introduction to Literature	3	0	3
OSC	103	Document Formatting	2	2	3
OSC	107	Shorthand II	2	2	3
CAS	101	Introduction to Computer Technology	4	0	4
PSY	104	Introduction to Psychology	5	0	5
			20	4	22

			HOURS		
			CLASS	LAB	CREDIT
Spring Quarter					
OSC	104	Document Production/Word Processing	2	2	3
ENG	132	Composition/Research/Documentation	3	0	3
OSC	108	Shorthand III	2	2	3
CAS	160	Windows	4	0	4
HUM	101	Dimensions of Human Experience	3	0	3
		Work Experience/Elective	3	0	3
			17	4	19
SECOND YEAR					
Fall Quarter					
OSC	202M	Medical Dictation/Transcription I	2	2	3
OSC	205	Advanced Word Processing Applications I	2	2	3
ACC	120	Accounting I	4	4	6
OSC	206E	Dictation and Transcription I	2	2	3
BUS	109	Business Math	4	0	4
			14	10	19
Winter Quarter					
CAS	150	Integrated Spreadsheets	3	2	4
OSC	203M	Medical Dictation/Transcription II	2	2	3
OSC	216	Medical Secretarial Procedures	2	2	3
ACC	121	Accounting II	4	4	6
OSC	211	Office Machines	0	2	1
BUS	129	Professional Imaging	4	0	4
			15	12	21
Spring Quarter					
OSC	248	Medical Insurance	2	2	3
BUS	271	Office Management	4	0	4
CAS	240	Automated Accounting Systems	3	2	4
MAT	121	College Algebra I	3	0	3
ENG	109	Public Speaking	5	0	5
			17	4	19

Total credit hours required for graduation = 120

ASSOCIATE IN APPLIED SCIENCE DEGREE
MICROCOMPUTER SYSTEMS TECHNOLOGY

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.

In the process of successfully completing this program of study, the student will have demonstrated the ability to:

1. Understand how a computer works, its capabilities and limitations.
2. Master a skilled knowledge of many current software packages including word processing, spreadsheets, databases, graphics, communications, and automated accounting.
3. Be able to provide training and support to people who use microcomputers by using good written and oral communications skills and proven training techniques.
4. Be able to productively use a current operating system, such as DOS/WINDOWS, for maintaining files and installing software.
5. Understand current microcomputer hardware technology in order to provide installation, replacement, and troubleshooting.
6. Understand how the data processing department fits in with the total business environment, providing organizational skills for design and implementation of office systems.
7. Be able to work effectively with both management and technical personnel in regard to using microcomputers for business systems.

COURSE AND HOUR REQUIREMENTS

Major Courses	Credit Hours
OSC 102	3
CAS 101*	4
CAS 102*	4
CAS 105*	4
CAS 106*	4
CAS 107	4
CAS 120*	4
CAS 130	4
CAS 135	4
CAS 140*	4
CAS 141	4
CAS 150*	4
CAS 151	4
CAS 160*	4
CAS 170*	4
CAS 210*	4
CAS 212*	4
CAS 213	4
CAS 230*	4
CAS 231	4
CAS 240	4
CAS 260*	4
CAS 275*	4

Related Courses	Credit Hours
ACC 120	6
ACC 121	6
BUS 109	4
BUS 129	4
MAT 118	5
	25

General Education Courses	
ENG 130	3
ENG 131	3
ENG 132	3
ENG 109	5
Choose 1 class from PSY, SOC, OR POL	5
	19
Elective	3

Students must take a minimum of 71 credit hours from the major courses. Classes denoted by an asterisk (*) are REQUIRED.

Total credit hours required for graduation = 118

SUGGESTED SEQUENCE OF COURSES MICROCOMPUTER SYSTEMS TECHNOLOGY

			HOURS CLASS	LAB	CREDIT
FIRST YEAR					
Fall Quarter					
OSC	102	Keyboarding or Elective	2	2	3
CAS	101	Introduction to Computer Technology	4	0	4
CAS	102	Microcomputer Applications	4	0	4
ENG	130	Grammar and Composition	3	0	3
BUS	109	Business Math	4	0	4
			17	2	18
Winter Quarter					
CAS	106	Word Processing I	3	2	4
CAS	150	Integrated Spreadsheets	3	2	4
ENG	131	Composition and Introduction to Literature	3	0	3
ACC	120	Accounting I	4	4	6
			13	8	17

			HOURS		
			CLASS	LAB	CREDIT
Spring Quarter					
CAS	120	Microcomputer Operating Systems	3	2	4
ENG	109	Public Speaking	5	0	5
ACC	121	Accounting II	4	4	6
ENG	132	Composition/Research/Documentation	3	0	3
		Computer Elective	3	2	4
			18	8	22
Summer Quarter					
		Social Science Elective	5	0	5
		Computer Elective	3	2	4
			8	2	9
SECOND YEAR					
Fall Quarter					
CAS	160	Windows	4	0	4
CAS	140	Hardware Maintenance and Installation	3	2	4
CAS	230	Data Communications I	3	2	4
CAS	105	Intro to Logic	4	0	4
		Elective or Co-Op	3	0	3
			17	4	19
Winter Quarter					
CAS	212	Database Management	3	2	4
BUS	129	Professional Imaging	4	0	4
CAS	210	Microcomputer Office Systems	4	0	4
CAS	170	Presenting Technical Information	3	2	4
			14	4	16
Spring Quarter					
CAS	275	Microcomputer Systems Project	3	2	4
CAS	260	Microcomputer Training and Support	4	0	4
MAT	118	Statistics	5	0	5
		Computer Elective	3	2	4
			15	4	17

Total credit hours required for graduation = 118

ASSOCIATE IN APPLIED SCIENCE DEGREE
NETWORKING TECHNOLOGIES
(Approval pending Fall Quarter 1996)

This curriculum prepares individuals for employment in the large and growing area of networking technologies. Networking technologies includes those technologies required to provide for data, voice, image, and video communication in businesses, industries, and education. Study includes training in operations of a variety of local area and wide area networks. An emphasis is placed on developing proficiency in the use of network management software applications and in the use of network hardware such as bridges, routers, and telecommunication devices.

Graduates may find employment in entry-level jobs as local network managers, network operators, network analysts, and network technicians. With additional experience, individuals may qualify for jobs as network administrators and analysts for enterprise-wide distributed database management systems.

COURSE AND HOUR REQUIREMENTS

Major Courses	Credit Hours	Related Courses	Credit Hours
CAS 121	4	BUS 129	4
CAS 180	4	ELN 112	4
CAS 282	5	ELN 113	4
CAS 283	5	MAT 118	5
CAS 183	3	MAT 121	3
CAS 230	4	Related Electives	4-6
CAS 231	4		24-26
CAS 181	4		
CAS 182	4		
CAS 284	4	**General Education Courses**	
CAS 285	4	ENG 130	3
CAS 280	5	ENG 131	3
CAS 281	5	ENG 132	3
CAS 184	5	ENG 109	5
CAS 140	4	ECO 102	5
CAS 286	4	Fine Arts Elective	5
	68		24

Total credit hours required for graduation = 116-118

SUGGESTED SEQUENCE OF COURSES
NETWORKING TECHNOLOGIES

			HOURS CLASS	LAB	CREDIT
FIRST YEAR					
Fall Quarter					
ENG	130	Grammar and Composition	3	0	3
ELN	112	Electronics Fundamentals I	3	2	4
CAS	230	Data Communications I	3	2	4
CAS	121	Advanced Microcomputer Operating System	3	2	4
CAS	180	Local Area Networks	4	0	4
			16	6	19
Winter Quarter					
ELN	113	Electronics Fundamentals II	3	2	4
ENG	131	Composition and Introduction to Literature	3	0	3
CAS	231	Data Communications II	3	2	4
CAS	181	Network Technology I	4	0	4
CAS	140	Hardware Maintenance and Installation	3	2	4
			16	6	19
Spring Quarter					
ENG	132	Composition, Research, and Docum.	3	0	3
ECO	102	Economics I	5	0	5
CAS	182	Network Technology II	4	0	4
CAS	183	Multi-User Operating Systems	3	0	3
CAS	184	Connectivity and Access	4	2	5
			19	2	20
SECOND YEAR					
Fall Quarter					
CAS	280	Client-Server Systems I	4	2	5
CAS	282	Network System Administration	4	2	5
MAT	121	College Algebra I	3	0	3
		Humanities Elective	5	0	5
			16	4	18
Winter Quarter					
BUS	129	Professional Imaging	4	0	4
CAS	281	Client-Server Systems II	4	2	5
CAS	283	Advanced Network System Administration	4	2	5
CAS	284	Network Support I	3	2	4
		Related Elective	3-5	2	4-6
			18-20	8	22-24
Spring Quarter					
ENG	109	Public Speaking	5	0	5
MAT	118	Statistics	5	0	5
CAS	285	Network Support II	3	2	4
CAS	286	Certification Preparation	4	0	4
			17	2	18

Total credit hours required for graduation = 116-118

ASSOCIATE IN APPLIED SCIENCE DEGREE
OPERATIONS MANAGEMENT TECHNOLOGY

The Operations Management Technology curriculum is designed to educate individuals in the technical aspects of operations management for manufacturing and service industries. The curriculum emphasizes analytical reasoning, problem solving, and continuous improvement concepts required in today's dynamic business and industry environments. These concepts are developed through integrated study in quality and productivity, organizational management and effectiveness, financial analysis, and the management of human, physical, and information resources.

The Operations Management Technology curriculum is structured to meet the educational goals of individuals seeking leadership positions and those wishing to enhance their professional skills.

Employment opportunities exist in front line supervision, team leadership, operations planning, quality assurance, manufacturing management, service management, human resources management, logistics/distribution, occupational health and safety, inventory/materials management.

COURSE AND HOUR REQUIREMENTS

Major Courses	Credit Hours	Related Courses	Credit Hours
ISC 102	4	MAT 121	3
ISC 103	4	MAT 118	5
ISC 140	4	ECO 102	5
ISC 105	4	PHY 107	4
ISC 249	4	BUS 129	4
ISC 252	4		21
ISC 203	4	**General Education Courses**	
ISC 204	4	ENG 103	3
ISC 205	4	ENG 130	3
ISC 206	4	ENG 132	3
ISC 207	4	ENG 109	5
ISC 208	4	HUM 101	3
CAS 102	4	PSY 104	5
CAS 150	4		22
	60	**Work Experience/Electives**	6

Total credit hours required for graduation = 109

SUGGESTED SEQUENCE OF COURSES
OPERATIONS MANAGEMENT TECHNOLOGY

			HOURS		
			CLASS	LAB	CREDIT
FIRST YEAR					
Fall Quarter					
PSY	104	Introduction to Psychology	5	0	5
ISC	102	Management Functions	4	0	4
ISC	103	Productivity Fundamentals	4	0	4
ENG	130	English Grammar and Composition	3	0	3
			16	0	16
Winter Quarter					
ISC	105	Industrial Human Resources Management	4	0	4
ISC	206	Leadership Principles and Values	4	0	4
MAT	121	College Algebra I	3	0	3
ENG	103	Report Writing	3	0	3
CAS	102	Microcomputer Applications	4	0	4
			18	0	18
Spring Quarter					
ISC	140	Industrial Safety and Health	4	0	4
ISC	207	Advanced Leadership	4	0	4
MAT	118	Statistics	5	0	5
ENG	132	Composition/Research/Documentation	3	0	3
ECO	102	Economics I	5	0	5
			21	0	21
SECOND YEAR					
Fall Quarter					
ISC	203	Industrial Behavioral Science	4	0	4
ISC	204	Quality Focus	4	0	4
		Work Experience/Elective	0	0	6
			8	0	14
Winter Quarter					
ISC	249	Statistical Process Control I	4	0	4
ISC	205	Managerial Communications	4	0	4
CAS	120	Microcomputer Operating Systems	4	0	4
ENG	109	Public Speaking	5	0	5
			17	0	17
Spring Quarter					
ISC	252	Statistical Process Control II	4	0	4
ISC	208	Leadership - Case Studies	4	0	4
HUM	101	Dimensions of Human Experience	3	0	3
PHY	107	General Physics	4	0	4
CAS	150	Integrated Spreadsheets	3	2	4
BUS	129	Professional Imaging	4	0	4
			22	2	23

Total credit hours required for graduation = 109

ASSOCIATE IN APPLIED SCIENCE DEGREE RADIOGRAPHY (RADIOLOGIC TECHNOLOGY)

The radiography curriculum prepares the graduate to use radiation to provide images of tissues, organs, bones, and vessels that comprise the human body. The curriculum includes instruction in patient care and management, radiation protection, imaging procedures, quality assurance, recording media processing, equipment maintenance, interpersonal communication, and professional responsibility through an integration of classroom laboratory, and clinical education. The radiographer is a skilled healthcare professional qualified to provide patient services using imaging modalities as directed by qualified physicians.

Graduates may be employed in radiology departments in hospitals, clinics, physicians' offices, research and medical laboratories, federal and state agencies and industry.

Graduates of accredited programs are eligible to apply to take the national examination administered by the American Registry of Radiologic Technologists for certification and registration as medical radiographers.

Individuals desiring a career in radiography should take courses in biology, algebra, and the physical sciences prior to entering the program.

Upon completion of the program, the radiographer will be able to:

1. Apply knowledge of the principles of radiation protection for the patient, self and others.
2. Apply knowledge of anatomy, positioning and radiographic techniques to accurately demonstrate anatomical structures on a radiograph.
3. Determine exposure factors to achieve optimum radiographic technique with a minimum of radiation exposure to the patient.
4. Examine radiographs for the purpose of evaluating technique, positioning and other pertinent technical qualities.
5. Exercise discretion and judgment in the performance of medical imaging procedures.
6. Provide patient care essential to radiological procedures.
7. Recognize emergency patient conditions and initiate lifesaving first aid.

COURSE AND HOUR REQUIREMENTS

Major Courses	Credit Hours
RAD 101	4
RAD 102	4
RAD 211	3
RAD 104	4
RAD 105	1
RAD 107	4
RAD 109	2
RAD 110	1
RAD 111	4
RAD 222	3
RAD 113	1
RAD 108	4
RAD 121	4
RAD 123	1
RAD 115	6
RAD 213	3
RAD 116	6
RAD 141	2
RAD 201	4
RAD 204	6
RAD 205	6
RAD 209	2
RAD 206	7
RAD 207	8
PHY 108	4
	94

Related Courses	Credit Hours
BIO 107	4
BIO 108	4
PHY 107	4
MAT 121	3
RAD 210	2
MAT 123	3
CAS 102	4
	24
General Education Courses	
ENG 130	3
ENG 131	3
PSY 212	5
HUM 101	3
ENG 109	5
	19
Choose one credit hour free elective:	
PSY 105	1
PSY 106	1
PSY 107	1
PSY 108	1
PSY 109	1
Total hours credit:	138

Total credit hours required for graduation = 138

SUGGESTED SEQUENCE OF COURSES RADIOGRAPHY (RADIOLOGIC TECHNOLOGY)

FIRST YEAR

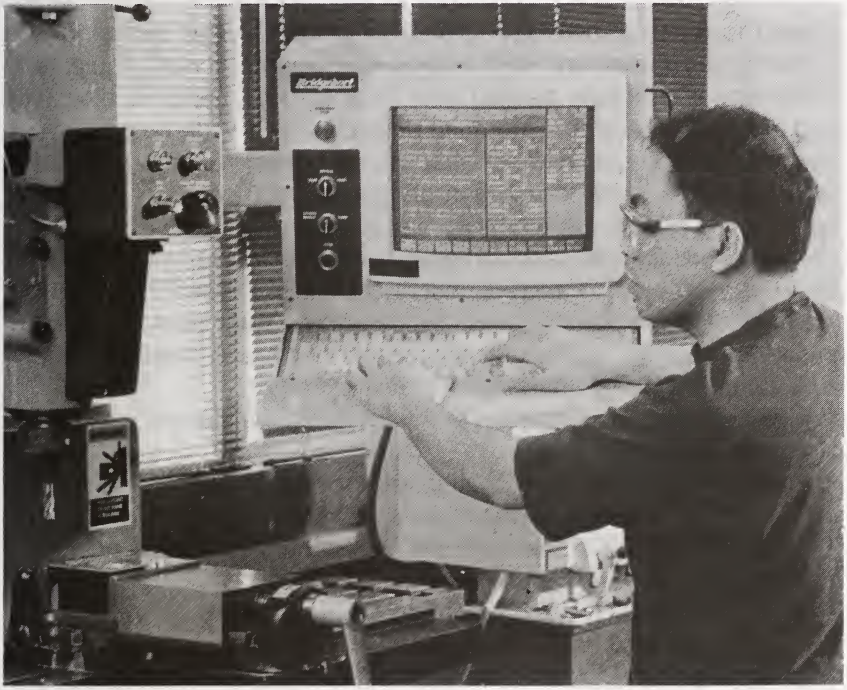
			Hours Per Week			
First Quarter - Fall			Class	Lab	Clinical	Credit
RAD	101	Positioning I	3	2	0	4
RAD	107	Clinical I	0	0	12	4
RAD	102	Principles of Radiographic Technique I	3	2	0	4
BIO	107	Anatomy and Physiology I	3	2	0	4
RAD	110	Introduction to Radiologic Technology	1	0	0	1
RAD	104	Radiographic Anatomy	4	0	0	4
			14	6	13	21
Second Quarter - Winter						
RAD	111	Positioning II	3	2	0	4
RAD	108	Clinical II	0	0	12	4
BIO	108	Anatomy and Physiology II	3	2	0	4
RAD	105	Critique I	1	0	0	1
MAT	121	College Algebra I	3	0	0	3
PSY	212	Lifespan Development	5	0	0	5
			15	4	12	21

			Hours Per Week			
Third Quarter - Spring			**Class**	**Lab**	**Clinical**	**Credit**
PHY	107	General Physics	4	0	0	4
MAT	123	Trigonometry	3	0	0	3
RAD	121	Positioning III	3	2	0	4
RAD	113	Critique II	1	0	0	1
RAD	109	Radiologic Patient Care	2	0	0	2
RAD	115	Clinical III	0	0	18	6
			13	2	18	20
Fourth Quarter - Summer						
RAD	123	Critique III	1	0	0	1
RAD	116	Clinical IV	0	0	18	6
RAD	141	Special Procedures	2	0	0	2
			3	0	18	9
SECOND YEAR						
Fifth Quarter - Fall						
ENG	130	Grammar and Composition	3	0	0	3
RAD	201	Radiation Protection	4	0	0	4
RAD	204	Clinical V	0	0	18	6
RAD	211	Processing Technique	2	2	0	3
ENG	109	Public Speaking	5	0	0	5
			14	2	18	21
Sixth Quarter - Winter						
RAD	213	Positioning IV	2	2	0	3
ENG	131	Composition/Introduction to Literature	3	0	0	3
RAD	205	Clinical VI	0	0	18	6
PHY	108	Radiation Physics	3	2	0	4
CAS	102	Microcomputer Applications	4	0	0	4
			12	4	18	20
Seventh Quarter - Spring						
RAD	222	Principles of Radiographic Technique II	2	2	0	3
RAD	206	Clinical VII	1	0	18	7
RAD	209	Radiologic Pathology	2	0	0	2
RAD	210	Medico Legal Issues	2	0	0	2
HUM	101	Dimensions of Human Experience	3	0	0	3
			10	2	18	17
Eighth Quarter - Summer						
RAD	207	Clinical VIII	2	0	18	8
		Free Elective	1	0	0	1
			3	0	18	9

Total credit hours required for graduation = 138


Cleveland

DIPLOMA CREDIT PROGRAMS



AIR CONDITIONING, HEATING AND REFRIGERATION

The Air Conditioning, Heating and Refrigeration curriculum is designed to teach knowledge and skills necessary for servicing and installing residential and light commercial climate control equipment. Instruction will include heating and cooling theory, applied electricity and electronics, and the operating principles for a wide-range of heating and cooling equipment. The diploma program will emphasize start up and service skills for oil, gas and electric furnaces, air-cooled air conditioning and air-to-air heat pumps.

Advanced diploma level programs will provide for more in-depth study and experience and will also include service and installation of water-cooled air conditioners, water source heat pumps, variable speed heat pumps, conventional hydronic systems and residential and light commercial system design.

Upon successful completion of the program, the student will demonstrate the ability to:

1. Service/install a room heating and cooling unit according to manufacturer's specifications.
2. Service/install residential and light commercial air conditioning equipment.
3. Service/install residential and light heat pumps.
4. Design/install residential and light commercial air distribution systems.
5. Balance air distribution system for heating and cooling.
6. Troubleshoot and repair controls.
7. Evacuate and charge refrigeration and cooling systems.
8. Use all tools and equipment necessary to make repairs on cooling and heating equipment.

COURSE AND HOUR REQUIREMENTS DAY SEQUENCE

			HOURS		
Fall Quarter			CLASS	SHOP	CREDIT
AHR	1121	Principles of Refrigeration	2	6	4
DFT	111	Computer Aided Drafting	3	2	4
ELC	1102	Basic Electricity for Air Conditioning, Heating, and Refrigeration	2	6	4
MAT	1101	Vocational Basic Arithmetic	4	0	4
WLD	1101	Basic Gas Welding	1	3	2
			12	17	18

			HOURS		
Winter Quarter			CLASS	SHOP	CREDIT
AHR	1115	Fundamentals of Heating	2	6	4
PHY	1101	Applied Physics	4	0	4
AHR	1123	Principles of Air Conditioning	2	6	4
BPR	1116	Blueprint Reading: Air Conditioning	4	0	4
AHR	1105	ACHR Law: Administrative and Building Code	4	0	4
			16	12	20
Spring Quarter					
AHR	1128	Automatic Controls	2	6	4
ENG	1102	Communication Skills	4	0	4
AHR	1126	All Year Comfort Systems	2	6	4
PSY	1101	Human Relations	4	0	4
			12	12	16
Summer Quarter					
AHR	1122	Domestic and Commercial Refrigeration	2	6	4
AHR	1104	ACHR Law: Mechanical and Gas Piping Code	4	0	4
AHR	1124	Air Condition and Refrigeration Servicing	2	6	4
AHR	1130	Year Around Duct System Design	4	0	4
			12	12	16

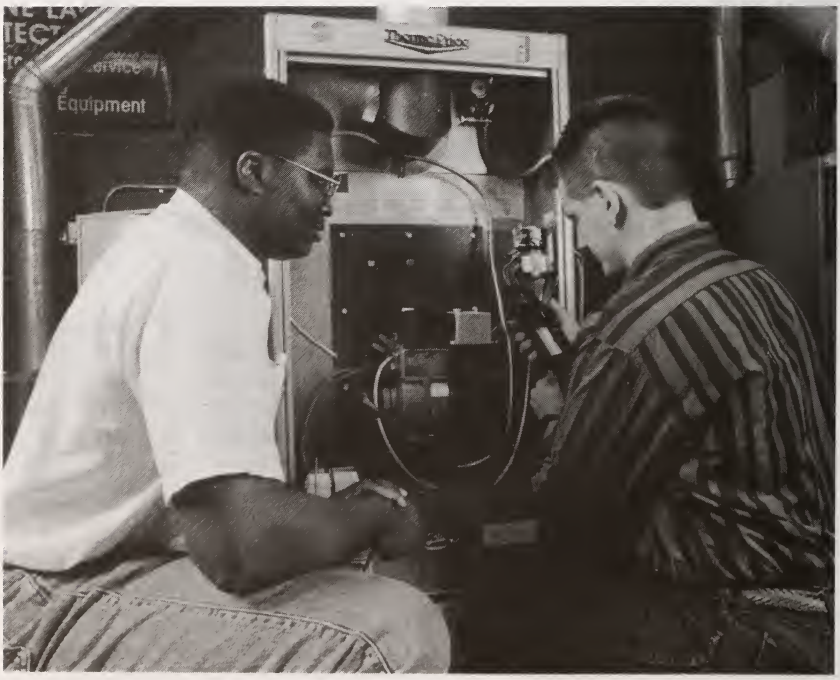
Total credit hours required for graduation = 70

NIGHT SEQUENCE

			HOURS		
FIRST YEAR					
Fall Quarter			CLASS	SHOP	CREDIT
AHR	1121	Principles of Refrigeration	2	6	4
DFT	111	Computer Aided Drafting	3	2	4
MAT	1101	Vocational Basic Arithmetic	4	0	4
			9	8	12
Winter Quarter					
ELC	1102	Basic Electricity for Air Conditioning, Heating, and Refrigeration	2	6	4
AHR	1105	ACHR Law: Administrative and Building Code	4	0	4
WLD	1101	Basic Gas Welding	1	3	2
			7	9	10
Spring Quarter					
AHR	1115	Fundamentals of Heating	2	6	4
BPR	1116	Blueprint Reading: Air Conditioning	4	0	4
			6	6	8
Summer Quarter					
AHR	1123	Principles of Air Conditioning	2	6	4
PHY	1101	Applied Physics	4	0	4
			6	6	8

			HOURS CLASS	SHOP	CREDIT
SECOND YEAR					
Fall Quarter					
AHR	1128	Automatic Controls	2	6	4
ENG	1102	Communication Skills	4	0	4
			6	6	8
Winter Quarter					
AHR	1126	All Year Comfort Systems	2	6	4
PSY	1101	Human Relations	4	0	4
			6	6	8
Spring Quarter					
AHR	1122	Domestic and Commercial Refrigeration	2	6	4
AHR	1104	ACHR Law: Mechanical and Gas Piping Code	4	0	4
			6	6	8
Summer Quarter					
AHR	1124	Air Condition and Refrigeration Servicing	2	6	4
AHR	1130	Year Around Duct System Design	4	0	4
			6	6	8

Total credit hours required for graduation = 70



AUTO BODY REPAIR

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

Repairing, straightening, aligning, metal finishing and painting of automobiles 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.

Upon successful completion of the program, the student will demonstrate the ability to:

1. Clean and prepare a surface for paint that is properly treated, sanded, primered, and free of dirt, wax or grease.
2. Straighten and align body panels to the right contour making sure that they fit and operate correctly.
3. Cut and weld body metal using approved methods.
4. Remove and replaced fixed and movable automobile glass.
5. Repair or replace fixed and movable automobile plastic components as applicable.
6. Check unibody structural alignment using measuring system and appropriate gauges.

COURSE AND HOUR REQUIREMENTS
DAY SEQUENCE

			HOURS		
			CLASS	SHOP	CREDIT
Fall Quarter					
AUT	1111	Auto Body Repair I	2	6	4
AUT	1311	Auto Body Repair II	3	9	6
MAT	1101	Vocational Basic Arithmetic	4	0	4
DFT	111	Computer Aided Drafting	3	2	4
			12	17	18

Winter Quarter

AUT	1112	Auto Body Repair III	2	6	4
AUT	1312	Auto Body Repair IV	3	9	6
PHY	1101	Applied Physics	4	0	4
WLD	1105	Auto Body Welding	1	3	2
			10	18	16

Spring Quarter

AUT	1113	Metal Finishing and Painting I	2	6	4
AUT	1313	Metal Finishing and Painting II	3	9	6
ENG	1102	Communications Skills	4	0	4
ISC	1101	General Industrial Survey	4	0	4
			13	15	18

Summer Quarter

AUT	1114	Body Shop Applications I	2	6	4
AUT	1314	Body Shop Applications II	3	9	6
PSY	1101	Human Relations	4	0	4
BUS	287	Small Business Management	4	0	4
			13	15	18

Total credit hours required for graduation = 70

NIGHT SEQUENCE

			HOURS		
			CLASS	SHOP	CREDIT
FIRST YEAR					
Fall Quarter					
AUT	1111	Auto Body Repair I	2	6	4
MAT	1101	Vocational Basic Arithmetic	4	0	4
			6	6	8
Winter Quarter					
AUT	1311	Auto Body Repair II	3	9	6
DFT	111	Computer Aided Drafting	3	2	4
			6	11	10
Spring Quarter					
AUT	1112	Auto Body Repair III	2	6	4
PHY	1101	Applied Physics	4	0	4
			6	6	8
Summer Quarter					
AUT	1312	Auto Body Repair IV	3	9	6
WLD	1105	Auto Body Welding	1	3	2
			4	12	8
SECOND YEAR					
Fall Quarter					
AUT	1113	Metal Finishing and Painting I	2	6	4
ISC	1101	General Industrial Survey	4	0	4
			6	6	8
Winter Quarter					
AUT	1313	Metal Finishing and Painting II	3	9	6
ENG	1102	Communication Skills	4	0	4
			7	9	10

Spring Quarter

AUT	1114	Body Shop Applications I	2	6	4
PSY	1101	Human Relations	4	0	4
			6	6	8

Summer Quarter

AUT	1314	Body Shop Applications II	3	9	6
BUS	287	Small Business Management	4	0	4
			7	9	10

Total credit hours required for graduation = 70

AUTOMOTIVE MECHANICS

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.

Automotive 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.

Upon successful completion of the program, the student will demonstrate ability in the following areas:

1. Rebuilding of internal combustion engines
2. Parts identification
3. Engine problem analysis
4. Charging and troubleshooting auto air conditioning
5. Diagnosing and repairing alignment problems
6. Analyzing and repairing fuel system problems

COURSE AND HOUR REQUIREMENTS
DAY SEQUENCE

			HOURS		
			CLASS	SHOP	CREDIT
Fall Quarter					
AUT	1101	Internal Combustion Engines I	5	3	6
MEC	1199	Automotive Machine Shop	2	6	4
MAT	1101	Vocational Basic Arithmetic	4	0	4
DFT	111	Computer Aided Drafting	3	2	4
			14	11	18
Winter Quarter					
AUT	1301	Internal Combustion Engines II	2	6	4
AUT	1103	Automotive Analyzing Equipment	5	3	6
PHY	1101	Applied Physics	4	0	4
			11	9	14
Spring Quarter					
AUT	1123	Brakes	2	6	4
AHR	1101	Auto Air Conditioning	2	6	4
ENG	1102	Communication Skills	4	0	4
AUT	1127	Power Accessories	1	3	2
			9	15	14

			HOURS CLASS	SHOP	CREDIT
Summer Quarter					
AUT	1302	Fuel Systems	5	3	6
AUT	1102	Engine Electrical Systems	5	3	6
AUT	1221	Front Alignment	2	6	4
PSY	1101	Human Relations	4	0	4
			16	12	20

Total credit hours required for graduation = 66

NIGHT SEQUENCE

			HOURS CLASS	SHOP	CREDIT
FIRST YEAR					
Fall Quarter					
AUT	1101	Internal Combustion Engines I	5	3	6
MAT	1101	Vocational Basic Arithmetic	4	0	4
			9	3	10
Winter Quarter					
MEC	1199	Automotive Machine Shop	2	6	4
DFT	111	Computer Aided Drafting	3	2	4
			5	8	8
Spring Quarter					
AUT	1301	Internal Combustion Engines II	2	6	4
PHY	1101	Applied Physics	4	0	4
			6	6	8
Summer Quarter					
AUT	1103	Automotive Analyzing Equipment	5	3	6
AUT	1227	Power Accessories	1	3	2
			6	6	8
SECOND YEAR					
Fall Quarter					
AUT	1123	Brakes	2	6	4
ENG	1102	Communication Skills	4	0	4
			6	6	8
Winter Quarter					
AHR	1101	Auto Air Conditioning	2	6	4
			2	6	4
Spring Quarter					
AUT	1302	Fuel Systems	5	3	6
PSY	1101	Human Relations	4	0	4
			9	3	10
Summer Quarter					
AUT	1102	Engine Electrical Systems	5	3	6
AUT	1221	Front Alignment	2	6	4
			7	9	10

Total credit hours required for graduation = 66

EARLY CHILDHOOD ASSOCIATE
(Diploma Option)

The Early Childhood Associate curriculum is designed to prepare individuals to work with children in learning environments from infancy through middle childhood. The program of study includes the subjects of child growth and development, physical and nutritional needs of children, care and guidance of children and communication with children and their parents. Students learn to foster the cognitive/language, physical/motor, and social/emotional development of children. The program of study combines theories and principles with opportunities for supervised practice.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities are available in child development and child care programs, preschools, public and private schools, recreational centers, kindergartens, some Head Start programs, and programs for children with special needs.

COURSE AND HOUR REQUIREMENTS
DAY SEQUENCE

			HOURS CLASS	CLIN/ LAB	CREDIT
FIRST YEAR					
Fall Quarter					
EDU	123	Child Care Credential I	3	0	3
EDU	126	Child Health, Safety and Nutrition	3	0	3
PSY	104	Introduction to Psychology	5	0	5
PSY	208	Human Growth and Development	3	3	3
MAT	121	College Algebra I	3	0	3
			17	3	17
Winter Quarter					
EDU	125	Creative Activities in Early Childhood	5	0	5
EDU	215	Classroom Management	3	0	3
EDU	233	Children's Literature Survey	3	0	3
Choose One:					
EDU	124	Child Care Credential II	3	0	3
EDU	134	Family Care Credential II	3	0	3
			14	0	14
Spring Quarter					
EDU	225	Children with Special Needs	3	0	3
ENG	109	Public Speaking	5	0	5
PSY	215	Infant and Child Psychology	5	0	5
			13	0	13

			HOURS CLASS	CLIN/ LAB	CREDIT
SECOND YEAR					
Fall Quarter					
EDU	217	Exploration Activities in Early Childhood	5	0	5
ENG	130	English Grammar and Composition	3	0	3
			8	0	8
Winter Quarter					
EDU	216	Communication Activities in Early Childhood	5	0	5
RTV	102	Intro to AV Equipment and Basic Production	2	2	3
			7	2	8
Spring Quarter					
SAF	106	First Aid and Safety	3	0	3
EDU	230	Internship	2	20	4
			5	20	7

Total credit hours required for graduation = 67

NIGHT SEQUENCE

			HOURS CLASS	SHOP	CREDIT
FIRST YEAR					
Fall Quarter					
EDU	123	Child Care Credential I	3	0	3
EDU	126	Child Health, Safety and Nutrition	3	0	3
PSY	215	Infant and Child Psychology	5	0	5
			11	0	11
Winter Quarter					
EDU	216	Communications Activities	5	0	5
Choose One:					
EDU	124	Child Care Credential II	3	0	3
EDU	134	Family Care Credential II	3	0	3
			8	0	8
Spring Quarter					
EDU	215	Classroom Management	3	0	3
PSY	208	Human Growth and Development	3	3	3
			6	3	3
Summer Quarter					
1st Session					
ENG	130	Grammar and Composition	3	0	3
PSY	104	Introduction to Psychology	5	0	5
			8	0	8
2nd Session					
EDU	233	Children's Literature Survey	3	0	3
ENG	109	Public Speaking	5	0	5
			8	0	8

SECOND YEAR

Fall Quarter

MAT	121	College Algebra I	3	0	3
EDU	125	Creative Activities	5	0	5
			8	0	8

Winter Quarter

EDU	217	Exploration Activities	5	0	5
RTV	102	Introduction to AV Equipment	2	2	3
			7	2	8

Spring Quarter

EDU	225	Children with Special Needs	3	0	3
EDU	230	Internship	2	20	4
SAF	106	First Aid and Safety	3	0	3
			8	20	10

Total credit hours required for graduation = 67

ELECTRICAL INSTALLATION

The Electrical Installation and Maintenance curriculum is designed to provide a training program in 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, installation, check out and maintenance systems in residential, commercial or industrial settings.

Upon completion of this program, the student will:

1. Understand current flow, voltage levels and systems, basic motor and transformer connections, and the laws of power.
2. Understand wire and troubleshoot basic motor control circuits.
3. Wire and program basic programmable controllers.
4. Have a working knowledge of residential wiring and all the circuitry involved—lighting, receptacles, appliances, heating, and air conditioning.
5. Have a working knowledge of commercial and industrial systems, conduit bending, identifying and sizing electrical equipment, and basic blueprint reading.
6. Have a basic knowledge of the National Electric Code.

COURSE AND HOUR REQUIREMENTS
DAY SEQUENCE

			HOURS		
			CLASS	SHOP	CREDIT
Fall Quarter					
ELC	1111	Basic Electrical Circuits, Machines and Transformers I	4	3	5
ELC	1311	Basic Electrical Circuits, Machines and Transformers II	4	3	5
MAT	1101	Vocational Basic Arithmetic	4	0	4
DFT	111	Computer Aided Drafting	3	2	4
BPR	1113	Blueprint Reading: Electrical	4	0	4
			19	8	22
Winter Quarter					
ELC	1113	AC/DC Machines and Controls I	2	6	4
ELC	1313	AC/DC Machines and Controls II	2	6	4
PHY	1101	Applied Physics	4	0	4
MAT	1110	Electrical Mathematics	4	0	4
			12	12	16

			HOURS CLASS	SHOP	CREDIT
Spring Quarter					
ELC	1124	Residential Wiring I	2	6	4
ELC	1324	Residential Wiring II	2	6	4
ENG	1102	Communication Skills	4	0	4
ELN	1103	Solid State Devices	4	0	4
			12	12	16
Summer Quarter					
ELC	1125	Commercial and Industrial Wiring I	2	6	4
ELC	1325	Commercial and Industrial Wiring II	2	6	4
PSY	1101	Human Relations	4	0	4
ELC	1114	National Electric Code	4	0	4
ELN	251	Programmable Logic Controller	3	2	4
			15	14	20

Total credit hours required for graduation = 74

NIGHT SEQUENCE

			HOURS CLASS	SHOP	CREDIT
FIRST YEAR					
Fall Quarter					
ELC	1111	Basic Electrical Circuits, Machines and Transformers I	4	3	5
MAT	1101	Vocational Basic Arithmetic	4	0	4
			8	3	9
Winter Quarter					
ELC	1311	Basic Electrical Circuits, Machines and Transformers II	4	3	5
MAT	1110	Electrical Mathematics	4	0	4
PHY	1101	Applied Physics	4	0	4
			12	3	13
Spring Quarter					
ELC	1113	AC/DC Machines and Controls I	2	6	4
BPR	1113	Blueprint Reading: Electrical	4	0	4
ENG	1102	Communication Skills	4	0	4
			10	6	12
Summer Quarter					
ELC	1313	AC/DC Machines and Controls II	2	6	4
PSY	1101	Human Relations	4	0	4
			6	6	8
SECOND YEAR					
Fall Quarter					
ELC	1124	Residential Wiring I	2	6	4
DFT	111	Computer Aided Drafting	3	2	4
			5	8	8
Winter Quarter					
ELC	1324	Residential Wiring II	2	6	4
ELN	1103	Solid State Devices	4	0	4
			6	6	8

			HOURS		
			CLASS	SHOP	CREDIT
Spring Quarter					
ELC	1125	Commercial and Industrial Wiring I	2	6	4
ELN	251	Programmable Logic Controller	3	2	4
			5	8	8
Summer Quarter					
ELC	1325	Commercial and Industrial Wiring II	2	6	4
ELC	1114	National Electrical Code	4	0	4
			6	6	8

Total credit hours required for graduation = 74

FOODSERVICE SPECIALIST (PRISON PROGRAM ONLY)

The Foodservice Specialist curriculum trains students in the art and science of quantity food preparation with particular emphasis on institutional food service. Using a career ladder concept, it is an open-ended curriculum allowing the students more flexibility in their training. In addition to development of knowledge and skills in the art and science of food preparation, the student must develop an understanding and appreciation of food and equipment purchasing, financial control, recordkeeping, basic nutrition and menu planning, and supervision.

A graduate of this curriculum should be qualified for entry into positions as assistant cook, short-order cook, cook, chef's assistant, cook manager, baker, assistant baker, and pastry cook. Employment needs for graduates of this program are found in hospitals, nursing homes, child care centers, college and university foodservice, school foodservice, industrial cafeterias, private clubs, airline foodservice, food processing manufacturers, foodservice contract companies, and commercial restaurants.

Upon successful completion of this program, the student will have demonstrated the ability to:

1. Observe and follow proper personal hygiene rules in the kitchen.
2. Correctly sanitize a kitchen.
3. Work kitchen equipment properly.
4. Handle small wares correctly.
5. Cook meats and vegetables.
6. Prepare salads.
7. Have a working knowledge of spices.
8. Bake bread and desserts.
9. Cook an entire meal.

COURSE AND HOUR REQUIREMENTS

			HOURS		
			CLASS	SHOP	CREDIT
Fall Quarter					
FSO	1102	Food Preparation and Baking I	2	6	4
MAT	1101	Vocational Basic Arithmetic	4	0	4
FSO	1103	Sanitation Safety and Equipment	4	0	4
FSO	1302	Food Preparation and Baking II	2	6	4
			12	12	16
Winter Quarter					
FSO	1112	Food Preparation and Baking III	2	6	4
FSO	1105	Purchasing	2	0	2
FSO	1109	Production Management	2	0	2
MAT	1102	Food Service Math	4	0	4
FSO	1312	Food Preparation and Baking IV	2	6	4
			12	12	16

			HOURS		
			CLASS	SHOP	CREDIT
Spring Quarter					
FSO	1122	Food Preparation V	2	6	4
FSO	1106	Menu Planning	3	0	3
ENG	1102	Communication Skills	4	0	4
NUT	101	Nutrition and Diet Therapy	3	0	3
FSO	1322	Food Preparation VI	2	6	4
			14	12	18
Summer Quarter					
FSO	1116	Baking V	2	6	4
FSO	1108	Personnel Management	2	0	2
RED	1101	Reading Improvement	4	0	4
PSY	1101	Human Relations	4	0	4
FSO	1316	Baking VI	2	6	4
			14	12	18

Total credit hours required for graduation = 68

INDUSTRIAL MAINTENANCE MECHANICS

The curriculum in Industrial Maintenance prepares students to repair and maintain machinery, electrical wiring and fixtures, and hydraulic and pneumatic devices found in industrial establishments.

Industrial maintenance persons may be required to install, maintain and service mechanical equipment; follow blueprints and sketches; and use hand tools, metalworking machines, measuring instruments and testing instruments. They operate metalworking machines such as lathe, milling machines and drill press to make repairs. They use the micrometer and calipers to verify dimensions. They assemble wires, insulation and electrical components using hand tools and soldering equipment. They test electrical circuits and components to locate shorts, faulty connections and defective parts. They inspect, test and repair hydraulic equipment.

Upon completion, students will have demonstrated ability in the following areas:

1. Electrical circuits and motor controls
2. Basic machining operations
3. Heating, refrigeration, and air conditioning principles
4. Basic welding repairs and fabrication
5. Mechanical maintenance to include:
   Fasteners
   Hydraulics
   Pneumatics
   Piping and pipe insulation
   Pumps
   Rigging

COURSE AND HOUR REQUIREMENTS
DAY SEQUENCE

			HOURS		
			CLASS	SHOP	CREDIT
Fall Quarter					
MEC	1101	Machine Shop Theory and Practices I	2	6	4
MEC	1301	Machine Shop Theory and Practices II	2	6	4
MAT	1101	Vocational Basic Arithmetic	4	0	4
DFT	111	Computer Aided Drafting	3	2	4
			11	14	16
Winter Quarter					
ELC	1113	AC/DC Machines and Controls I	2	6	4
ELC	1313	AC/DC Machines and Controls II	2	6	4
PHY	1101	Applied Physics	4	0	4
BPR	1104	Blueprint Reading: Mechanical	3	0	3
HYD	1105	Hydraulic Fundamentals	4	0	4
			15	12	19

			HOURS CLASS	SHOP	CREDIT
Spring Quarter					
AHR	1121	Principles of Refrigeration	2	6	4
AHR	1115	Fundamentals of Heating	2	6	4
ENG	1102	Communication Skills	4	0	4
ISC	1101	General Industrial Survey	4	0	4
		Elective	3	0	3
			15	12	19
Summer Quarter					
WLD	1122	Commercial and Industrial Practices I	2	6	4
WLD	1322	Commercial and Industrial Practices II	3	9	6
PSY	1101	Human Relations	4	0	4
MNT	1134	Mechanical Maintenance	4	0	4
			13	15	18

Total credit hours required for graduation = 72

NIGHT SEQUENCE

			HOURS CLASS	SHOP	CREDIT
FIRST YEAR					
Fall Quarter					
MEC	1101	Machine Shop Theory and Practices I	2	6	4
MAT	1101	Vocational Basic Arithmetic	4	0	4
			6	6	8
Winter Quarter					
MEC	1301	Machine Shop Theory and Practices II	2	6	4
DFT	111	Computer Aided Drafting	3	2	4
			5	8	8
Spring Quarter					
ELC	1113	AC/DC Machines and Controls I	2	6	4
PHY	1101	Applied Physics	4	0	4
HYD	1105	Hydraulic Fundamentals	4	0	4
			10	6	12
Summer Quarter					
ELC	1313	AC/DC Machines and Controls II	2	6	4
BPR	1104	Blueprint Reading: Mechanical	3	0	3
			5	6	7
SECOND YEAR					
Fall Quarter					
AHR	1121	Principles of Refrigeration	2	6	4
ISC	1101	General Industrial Survey	4	0	4
COE	101	Work Experience (or elective)	3	0	3
			9	6	11
Winter Quarter					
AHR	1115	Fundamentals of Heating	2	6	4
ENG	1102	Communication Skills	4	0	4
			6	6	8

			HOURS		
			CLASS	SHOP	CREDIT
Spring Quarter					
WLD	1122	Commercial and Industrial Practices I	2	6	4
PSY	1101	Human Relations	4	0	4
			6	6	8
Summer Quarter					
WLD	1322	Commercial and Industrial Practices II	3	9	6
MNT	1134	Mechanical Maintenance	4	0	4
			7	9	10

Total credit hours required for graduation = 72

Electives can be chosen from other curriculum course offerings in the catalog (subject to Department Head's approval).

MACHINIST

The Machinist curriculum gives the individual 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 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.

In the process of successfully completing the program of study, the student will have demonstrated the ability to:

1. Use micrometers, vernier calipers, small hole gauge, telescope gauge, and other precision instruments.
2. Operate in a safe manner the basic machines in a modern machine shop such as the lathe, milling machine, drill press, grinders to include lathe taper attachments, milling machine boring head, dial indicators, diving head, and rotary table.
3. Read and intercept blueprints and other written instructions for machining; use shop math, such as trigonometry, to solve machining problems.
4. Demonstrate an understanding of the machining characteristics of different types of metal and sharpening of cutting tools and drills.
5. Use computer numerical controls to perform machining operations on milling machines and lathes.
6. Operate machine keyways in shafts and broach keyways in gears, set up precision angles with sine bar, and lay out surfaces to be machined or holes to be drilled.
7. Chase threads on a lathe.
8. Work to four plate decimal tolerances.
9. Understand the need for honesty, responsibility, and reliability in the work place.
10. Exhibit safe work habits and an understanding of OSHA and ANSI.

COURSE AND HOUR REQUIREMENTS
DAY SEQUENCE

			HOURS		
			CLASS	SHOP	CREDIT
Fall Quarter					
MEC	1101	Machine Shop Theory and Practices I	2	6	4
MEC	1301	Machine Shop Theory and Practices II	2	6	4
MAT	1101	Vocational Basic Arithmetic	4	0	4
WLD	1330	Machine Shop Welding	1	3	2
BPR	1305	Blueprint Reading: Machinist	4	0	4
			13	15	18
Winter Quarter					
MEC	1102	Machine Shop Theory and Practices III	2	6	4
MEC	1302	Machine Shop Theory and Practices IV	2	6	4
MAT	1103	Applied Math: Geometry	4	0	4
PHY	1101	Applied Physics	4	0	4
MEC	1105	Introduction to CNC Lathe and Mill	4	0	4
			16	12	20
Spring Quarter					
MEC	1103	Machine Shop Theory and Practices V	2	6	4
MEC	1303	Machine Shop Theory and Practices VI	2	6	4
MAT	1104	Applied Math: Trigonometry	4	0	4
ENG	1102	Communication Skills	4	0	4
MEC	1106	Programming the CNC Lathe	4	0	4
			16	12	20
Summer Quarter					
MEC	1104	Machine Shop Theory and Practices VII	2	6	4
MEC	1304	Machine Shop Theory and Practices VIII	2	6	4
PSY	1101	Human Relations	4	0	4
MEC	1107	Programming the CNC Mill	4	0	4
			12	12	16

Total credit hours required for graduation = 74

NIGHT SEQUENCE

			HOURS		
			CLASS	SHOP	CREDIT
FIRST YEAR					
Fall Quarter					
MEC	1101	Machine Shop Theory and Practices I	2	6	4
MAT	1101	Vocational Basic Arithmetic	4	0	4
BPR	1305	Blueprint Reading: Machinist	4	0	4
			10	6	12
Winter Quarter					
MEC	1301	Machine Shop Theory and Practices II	2	6	4
PSY	1101	Human Relations	4	0	4
			6	6	8

			HOURS CLASS	HOURS SHOP	HOURS CREDIT
Spring Quarter					
MEC	1102	Machine Shop Theory and Practices III	2	6	4
MAT	1103	Applied Math: Geometry	4	0	4
WLD	1330	Machine Shop Welding	1	3	2
			7	9	10
Summer Quarter					
MEC	1302	Machine Shop and Practices IV	2	6	4
PHY	1101	Applied Physics	4	0	4
			6	6	8
SECOND YEAR					
Fall Quarter					
MEC	1103	Machine Shop Theory and Practices V	2	6	4
MAT	1104	Applied Math: Trigonometry	4	0	4
MEC	1105	Introduction to CNC Lathe and Mill	4	0	4
			10	6	12
Winter Quarter					
MEC	1303	Machine Shop Theory and Practices VI	2	6	4
ENG	1102	Communications Skills	4	0	4
MEC	1106	Programming the CNC Lathe	4	0	4
			10	6	12
Spring Quarter					
MEC	1104	Machine Shop Theory and Practices VII	2	6	4
MEC	1107	Programming the CNC Mill	4	0	4
			6	6	8
Summer Quarter					
MEC	1304	Machine Shop Theory and Practices VIII	2	6	4

Total credit hours required for graduation = 74

PLUMBING AND PIPEFITTING (PRISON PROGRAM ONLY)

The Plumbing and Pipefitting curriculum is designed to train individuals to repair or install plumbing systems in residences and small commercial buildings. Courses in plumbing practices and pipefitting are included to provide practical experience as well as courses in theory that one must know to advance and keep up to date. Other courses in communication skills, physics, human relations and business operations are provided to assist the individual in occupational growth.

Plumbers are employed by contractors in the building construction fields to install pipe systems which carry water, steam, air or other liquids or gases for sanitation, heating, industrial, production and various other uses. They also alter and repair existing pipe systems and install plumbing fixtures, appliances, and heating and refrigeration units.

Upon successful completion of this course, the student will be able to:

1. Perform elementary mathematical operations associated with this trade.
2. Interpret blueprint and specifications.
3. Route and install motor lines, gas lines and vents.
4. Size drains and install them properly.
5. Install fixtures (tubs, sinks, etc.)
6. Make repairs on existing facilities.

COURSE AND HOUR REQUIREMENTS

			HOURS		
			CLASS	SHOP	CREDIT
Fall Quarter					
PLU	1113	Drainage and Vent Systems	4	12	8
BPR	1115	Blueprint Reading: Plumbing	4	0	4
MAT	1101	Vocational Basic Arithmetic	4	0	4
ENG	1102	Communication Skills	4	0	4
			16	12	20
Winter Quarter					
PLU	1112	Installation of Plumbing Fixtures	2	6	4
PLU	1125	Industrial Piping	3	9	6
PHY	1101	Applied Physics	4	0	4
PSY	1101	Human Relations	4	0	4
			13	15	18
Spring Quarter					
PLU	1114	Residential Water Systems	3	9	6
WLD	1101	Basic Gas Welding	1	3	2
PLU	1120	Low Pressure Steam Systems	2	6	4
RED	1101	Reading Improvement	4	0	4
			10	18	16

			HOURS		
			CLASS	SHOP	CREDIT
Summer Quarter					
PLU	1123	Hot Water and Panel Heating	3	6	5
BUS	1103	Small Business Operations	4	0	4
PLU	1126	Hydraulic Systems Plumbing	3	3	4
PLU	1128	Plumbing Code	4	0	4
			14	9	17

Total credit hours required for graduation = 71

PRACTICAL NURSING
(DAY SCHEDULE ONLY)

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; (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.

COURSE AND HOUR REQUIREMENTS

			Hours Per Week			
First Quarter			**Class**	**Lab**	**Clinical**	**Credit**
NUR	1116	Fundamentals of Nursing	9	4	0	11
NUT	101	Nutrition and Diet Therapy	3	0	0	3
PSY	208	Human Growth and Development	3	0	0	3
ENG	130	English Grammar and Composition	3	0	0	3
BIO	107	Anatomy and Physiology I	3	2	0	4
			21	6	0	24
Second Quarter						
NUR	1118	Medical-Surgical Nursing I	5	0	0	5
NUR	1117	Pharmacology	3	2	0	4
NUR	1119	Clinical I	0	0	12	4
BIO	108	Anatomy and Physiology II	3	2	0	4
			11	4	12	17

			Hours Per Week			
Third Quarter			**Class**	**Lab**	**Clinical**	**Credit**
NUR	1121	Maternal-Child Nursing I	4	0	0	4
CAS	104	Health Care Computer Literacy	0	2	0	1
NUR	1122	Medical-Surgical Nursing II	5	0	0	5
NUR	1123	Clinical II	0	0	15	5
			9	2	15	15
Fourth Quarter						
NUR	1124	Maternal-Child Nursing II	4	0	0	4
NUR	1125	Medical-Surgical Nursing III	5	0	0	5
NUR	1127	Vocational Adjustments	1	0	0	1
NUR	1126	Clinical III	0	0	15	5
			10	0	15	15

Total credit hours required for graduation = 71

RESIDENTIAL CARPENTRY (PRISON PROGRAM ONLY)

The Residential Carpentry curriculum trains students to construct and make repairs to residential structures using standard building materials and hand and power tools. This curriculum is designed to teach carpentry skills and a general knowledge of residential construction. Instruction also includes the study of mathematics, blueprint reading, building codes and energy efficient construction.

Graduates will have a working knowledge of building materials, concrete form construction, rough framing, roofing, stair construction, insulation and the application of interior and exterior trim.

Graduates should qualify for employment in the residential building construction field as rough carpenters, framing carpenters, roofers, maintenance carpenters, and other related job titles.

Upon successful completion of the program, the student will demonstrate the ability to:

1. Use and understand basic construction math, including use of rules, "plumb bobs," and the framing square.
2. Interpret blueprints and specifications, and build from a drawing.
3. Understand strengths of material and make appropriate choice.
4. Use most power tools, including saws, and drills.
5. Use safety practices.

COURSE AND HOUR REQUIREMENTS

			HOURS		
			CLASS	SHOP	CREDIT
Fall Quarter					
CAR	1101	Carpentry I	2	6	4
CAR	1301	Carpentry II	2	6	4
BPR	1001	Blueprint Layout and Design	4	0	4
MAT	1101	Vocational Basic Arithmetic	4	0	4
			12	12	16
Winter Quarter					
CAR	1102	Carpentry III	2	6	4
CAR	1302	Carpentry IV	2	6	4
MEC	1135	Mechanical Installation	4	0	4
BUS	1103	Small Business Operations	4	0	4
			12	12	16
Spring Quarter					
CAR	1103	Carpentry V	2	6	4
CAR	1303	Carpentry VI	2	6	4
MEC	1135	Mechanical Installation	4	0	4
MAT	1112	Construction Estimating	4	0	4
			12	12	16

			HOURS		
			CLASS	SHOP	CREDIT
Summer Quarter					
CAR	1104	Carpentry VII	2	6	4
CAR	1304	Carpentry VIII	2	6	4
CAR	1305	Building Code	4	0	4
PSY	1101	Human Relations	4	0	4
CAR	1106	Construction Seminar	4	0	4
			16	12	20

Total credit hours required for graduation = 68

WELDING

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.

Upon completion of this program, the student will be able to:

1. Use oxy welding equipment.
2. Use arc welding equipment, stick, mig-tig, and make welds.
3. Use shop equipment found in industry.
4. Read and understand blueprints.
5. Enter the welding industry as a welder's assistant.
6. Use all equipment safely.

COURSE AND HOUR REQUIREMENTS
DAY SEQUENCE

			HOURS		
			CLASS	SHOP	CREDIT
Fall Quarter					
WLD	1120	Oxyacetylene Welding I	2	6	4
WLD	1320	Oxyacetylene Welding II	3	9	6
MAT	1101	Vocational Basic Arithmetic	4	0	4
DFT	111	Computer Aided Drafting	3	2	4
			12	17	18
Winter Quarter					
WLD	1121	Arc Welding I	2	6	4
WLD	1321	Arc Welding II	3	9	6
PHY	1101	Applied Physics	4	0	4
BPR	1104	Blueprint Reading: Mechanical	3	0	3
			12	15	17
Spring Quarter					
WLD	1124	Pipe Welding I	2	6	4
WLD	1324	Pipe Welding II	3	9	6
ENG	1102	Communication Skills	4	0	4
ISC	1101	General Industrial Survey	4	0	4
			13	15	18
Summer Quarter					
WLD	1122	Commercial and Industrial Practices I	2	6	4
WLD	1322	Commercial and Industrial Practices II	3	9	6
PSY	1101	Human Relations	4	0	4
BUS	287	Small Business Management	4	0	4
			13	15	18

Total credit hours required for graduation = 71

NIGHT SEQUENCE

			HOURS CLASS	SHOP	CREDIT
FIRST YEAR					
Fall Quarter					
WLD	1120	Oxyacetylene Welding I	2	6	4
MAT	1101	Vocational Basic Arithmetic	4	0	4
			6	6	8
Winter Quarter					
WLD	1320	Oxyacetylene Welding II	3	9	6
DFT	111	Computer Aided Drafting	3	2	4
			6	11	10
Spring Quarter					
WLD	1121	Arc Welding I	2	6	4
PHY	1101	Applied Physics	4	0	4
			6	6	8
Summer Quarter					
WLD	1321	Arc Welding II	3	9	6
BPR	1104	Blueprint Reading: Mechanical	3	0	3
			6	9	9
SECOND YEAR					
Fall Quarter					
WLD	1124	Pipe Welding I	2	6	4
ISC	1101	General Industrial Survey	4	0	4
			6	6	8
Winter Quarter					
WLD	1324	Pipe Welding II	3	9	6
ENG	1102	Communication Skills	4	0	4
			7	9	10
Spring Quarter					
WLD	1122	Commercial and Industrial Practices I	2	6	4
PSY	1101	Human Relations	4	0	4
			6	6	8
Summer Quarter					
WLD	1322	Commercial and Industrial Practices II	3	9	6
BUS	287	Small Business Management	4	0	4
			7	9	10

Total credit hours required for graduation = 71

CURRICULUM CERTIFICATE PROGRAMS

CERTIFICATE IN ADVANCED LEADERSHIP

Advanced Leadership Certificate

Advanced Leadership is a certificate option in the Operations Management Technology curriculum. The courses included in this certificate will enhance the skills of current supervisors with modern management and leadership training.

COURSE AND HOUR REQUIREMENTS

Required Courses			Credit Hours
ISC	203	Industrial Behavioral Science	4
ISC	204	Quality Focus	4
ISC	205	Managerial Communications	4
ISC	206	Leadership Principles and Values	4
ISC	207	Advanced Leadership	4
ISC	208	Leadership Case Studies	4

Total credit hours required for certificate: 24

CERTIFICATE IN BASIC ELECTRONICS

Certificate Option

Basic Electronics is a certificate option in the Electronic Engineering Technology program and provides the ability to acquire an introductory knowledge of electronic principles, applications, component testing and selection, and the use of basic test equipment. This option is for those who do not necessarily need a background in digital electronics or are already proficient in that area.

COURSE AND HOUR REQUIREMENTS

Required Courses			Credit Hours
ELN	112	Electronic Fundamentals I	4
ELN	113	Electronic Fundamentals II	4
ELN	114	Active Devices	4
ELN	121	Electronic Circuits I	4
ELN	122	Electronic Circuits II	4

Total credit hours required for certificate: 20

CERTIFICATE IN CRIMINAL JUSTICE

BASIC LAW ENFORCEMENT TRAINING CERTIFICATE

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 in 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 qualify one for job opportunities with private enterprise in such areas as industrial, retail, and private security.

COURSE AND HOUR REQUIREMENTS

Required Courses	Credit Hours
CJC 100C	27

Total credit hours required for certificate: 27

CERTIFICATE IN COSMETOLOGY

If you are interested in a challenging and rewarding career and like to use your creative talents to work with people, hairstyles, makeup and clothes, then a career in cosmetology may be right for you.

The field of cosmetology is based on scientific principles. The Cosmetology curriculum offers instruction in manicuring, shampooing, permanent waving, facials, massages, scalp treatments, hair cutting, and styling and wig service.

Cosmetology is offered day or night by contracting on either a full-time or part-time schedule. Students will register for both classes during a quarter (theory and clinical).

To receive a Cleveland Community College certificate, a student must complete 72 credit hours (1500 contact hours).

Upon completion of this program and successful passing of a comprehensive examination administered by the North Carolina State Board of Cosmetic Art, a license is given.

The cosmetologist is called upon to advise men and women on problems of makeup and care of the hair, skin and hands including nails. Employment opportunities are available in beauty salons, private clubs, department stores, and women's specialty shops. You may decide to set up your own business.

COURSE AND HOUR REQUIREMENTS

			HOURS		
Fall Quarter			CLASS	LAB	CREDIT
COS	1001	Scientific Study I	7	15	12
COS	1011	Clinical Applications I	0	18	6
			7	33	18
Second Quarter					
COS	1002	Scientific Study II	7	0	7
COS	1022	Clinical Applications II	0	33	11
			7	33	18
Third Quarter					
COS	1003	Scientific Study III	7	0	7
COS	1033	Clinical Applications III	0	33	11
			7	33	18
Fourth Quarter					
COS	1004	Scientific Study IV	7	0	7
COS	1044	Clinical Applications IV	0	33	11
			7	33	18

Total credit hours = 72

Total contact hours = 1500

Manicuring courses are available.

CERTIFICATE IN DIGITAL ELECTRONICS

Certificate Option

Digital Electronics is a certificate option in the Electronic Engineering Technology program which focuses primarily on digital electronics and electronic circuits related to computerized devices and controls. The certificate option is suited for the student whose primary interest is in digital electronics or the student who has basic electronic experience and needs to upgrade in the digital and computer area.

COURSE AND HOUR REQUIREMENTS

Required Courses			Credit Hours
ELN	218	Logic Fundamentals	4
ELN	219	Pulse and Logic Circuits	4
ELN	123	Microprocessor Fundamentals	4
ELN	242	Electronic Systems I	4
ELN	243	Electronic Systems II	4

Total credit hours required for certificate: 20

CERTIFICATE IN EARLY CHILDHOOD ASSOCIATE

Basic Child Care Certificate

The certificate in basic child care is designed to provide initial experiences working with preschool children. The certificate also allows the child care worker to upgrade skills or educational level. Cleveland Community College Certificate will be awarded upon successful completion of the program. All courses can be applied toward the Early Childhood diploma or degree.

COURSE AND HOUR REQUIREMENTS

			Credit Hours
Fall Quarter			
EDU	123	Child Care Credential I	3
EDU	126	Child Health, Safety & Nut.	3
EDU	225	Children with Special Needs*	3
PSY	208	Human Growth & Dev.	3
		Elective	3
Winter Quarter			
EDU	215	Classroom Management	3
EDU	125	Creative Activities	5
EDU	110	Practicum: Preschool	2
SAF	106	First Aid and Safety	3
Choose One:			
EDU	124	Child Care Credential II	3
EDU	134	Family Care Credential II	3

Total credit hours required for certificate: 31

* offered spring quarter

CERTIFICATE IN EARLY CHILDHOOD ASSOCIATE

Child Care Administration Certificate*

This certificate is designed to update child care directors and administrators on their knowledge of child care theory and its application. The curriculum places special emphasis on managerial and legal aspects of day care operation. This certificate is not restricted to day care operators. It is open to all teachers desiring to move into administrative positions. Upon successful completion of the program, a Cleveland Community College Certificate will be awarded. All required courses may be applied toward the Early Childhood Associate diploma and degree.

COURSE AND HOUR REQUIREMENTS

Required Courses			Credit Hours
EDU	123	Child Care Credential I	3
EDU	126	Child Health Safety & Nutrition	3
EDU	232	Child Care Administration	3
PSY	208	Human Growth & Develop.	3
SAF	106	First Aid & Safety	3
MAT	121	College Algebra I	3
		Choose One:	
EDU	124	Child Care Credential II	3
EDU	134	Family Care Credential II	3

Total credit hours required for certificate: 21

*These courses will be offered over two years in concurrence with the degree program.

CERTIFICATE IN FASHION MERCHANDISING

A concentrated study in the elements of fashion merchandising, this program will allow the student to gain desired information in the fashion curriculum without completing the requirements for a degree.

COURSE AND HOUR REQUIREMENTS

			Credit Hours
Fall Quarter			
MKT	101	Principles of Fashion Merchandising	4
MKT	220	Elements of Design	4
MKT	210	Fashion Advertising and Sales Promotion	4
OSC	102	Keyboarding/Typewriting	3
			15
Winter Quarter			
BUS	129	Professional Imaging	4
MKT	218	Fashion Buying	4
MKT	260	Visual Merchandising	4
BUS	127	REAL - Small Business I	4
CAS	101	Introduction to Computer Technology	4
			20
Spring Quarter			
MKT	106	Fabric Science	4
MKT	110	Bridal Consulting	3
MKT	111	Menswear	3
BUS	128	REAL - Small Business II	4
			14

Total credit hours required for certificate: 49

CERTIFICATE IN MEDICAL OFFICE TECHNOLOGY

Medical Transcription Certificate

The Medical Transcription Certificate Program is designed to provide the individual with the knowledge and skills for employment as a medical transcriptionist. This objective is fulfilled through an indepth study and application of medical terminology, transcription of medical records, and the filing of correspondence, records and other data.

COURSE AND HOUR REQUIREMENTS

Required Courses			Credit Hours
OSC	183M	Medical Terminology & Vocabulary I	4
OSC	102	Keyboarding	3
ENG	130	English Grammar & Composition	3
OSC	284M	Medical Terminology & Vocabulary II	4
ENG	131	Composition & Introduction to Literature	3
OSC	103	Document Formatting	3
CAS	101	Introduction to Computer Technology	4
OSC	104	Document Production/Word Processing	3
CAS	160	Windows	4
OSC	202M	Medical Dictation & Transcription I	3
OSC	203M	Medical Dictation & Transcription II	3

Total credit hours required for certificate: 37

CERTIFICATE IN MICROCOMPUTER SYSTEMS TECHNOLOGY

Business Information Management

The Certificate in Microcomputer Systems Technology (Business Information Management) is designed for individuals desiring skills in using the computer to control, manage, and maximize the information available in the modern business.

COURSE AND HOUR REQUIREMENTS
DAY SEQUENCE

			Credit Hours
Fall Quarter			
CAS	101	Introduction to Computer Technology	4
CAS	150	Integrated Spreadsheets	4
Winter Quarter			
CAS	212	Database Management	4
CAS	120	Microcomputer Operating Systems	4
CAS	170	Presenting Technical Information	4
Spring Quarter			
CAS	151	Advanced Spreadsheets	4
CAS	213	Advanced Database Management	4

Total credit hours required for certificate: 28

NIGHT SEQUENCE

			Credit Hours
Summer Quarter			
CAS	101	Introduction to Computer Technology	4
Fall Quarter			
CAS	212	Database Management	4
CAS	150	Integrated Spreadsheets	4
Winter Quarter			
CAS	120	Microcomputer Operating Systems	4
CAS	170	Presenting Technical Information	4
Spring Quarter			
CAS	151	Advanced Spreadsheets	4
CAS	213	Advanced Database Management	4

Total credit hours required for certificate: 28

CERTIFICATE IN MICROCOMPUTER SYSTEMS TECHNOLOGY

Business Publications and Presentations

The Certificate in Microcomputer Systems Technology (Business Publications and Presentations) is designed for individuals desiring skills in the design, creation, and production of presentation and publications using the microcomputer.

COURSE AND HOUR REQUIREMENTS
DAY AND NIGHT SEQUENCE

			Credit Hours
Spring Quarter			
CAS	101	Introduction to Computer Technology	4
CAS	106	Word Processing I	4
Summer Quarter			
CAS	130	Graphics	4
CAS	107	Word Processing II	4
Fall Quarter			
CAS	160	Windows	4
CAS	135	Desktop Publishing	4
Winter Quarter			
CAS	120	Microcomputer Operating Systems	4
CAS	170	Presenting Technical Information	4

Total credit hours required for certificate: 32

CERTIFICATE IN MICROCOMPUTER SYSTEMS TECHNOLOGY

Microcomputer Technical Support

The Certificate in Microcomputer Systems Technology (Microcomputer Technical Support) is designed for individuals desiring knowledge and skills in configuring, installing and trouble-shooting microcomputer systems, including hardware components, data communications devices, and software installation.

COURSE AND HOUR REQUIREMENTS
DAY SEQUENCE

			Credit Hours
Spring Quarter			
CAS	101	Introduction to Computer Technology	4
CAS	120	Microcomputer Operating Systems	4
Fall Quarter			
CAS	230	Data Communications I	4
CAS	140	Hardware Maintenance and Installation	4
Winter Quarter			
CAS	231	Data Communications II	4
Spring Quarter			
CAS	160	Windows	4
Summer Quarter			
CAS	141	Advanced Hardware Maintenance and Installation	4

Total credit hours required for certificate: 28

NIGHT SEQUENCE

			Credit Hours
Winter Quarter			
CAS	101	Introduction to Computer Technology	4
CAS	120	Microcomputer Operating Systems	4
Spring Quarter			
CAS	160	Windows	4
CAS	140	Hardware Maintenance and Installation	4
Summer Quarter			
CAS	141	Advanced Hardware Maintenance and Installation	4
Fall Quarter			
CAS	230	Data Communications I	4
Winter Quarter			
CAS	231	Data Communications II	4

Total credit hours required for certificate: 28

CERTIFICATE IN REAL ESTATE
(Technical Specialty Certificate)

The purpose of the Real Estate (Technical Specialty) curriculum is to provide the prelicensing education requirements needed for real estate salespersons and brokers.

The courses required by the North Carolina Real Estate Commission for prelicensing which are covered in this curriculum are Fundamentals of Real Estate, Real Estate Law, Real Estate Finance, and Brokerage Operations. In addition to these courses, Real Estate Math is also included.

After successful completion of Fundamentals of Real Estate, an individual may make application with the Real Estate Commission to take the prelicensing real estate salesperson examination. After successful completion of all the courses required by the Real Estate Commission, an individual may make application with the Commission to take the real estate prelicensing broker examination.

Employment opportunities are available in real estate firms as salespersons or brokers as well as a real estate broker in one's own business.

Upon completion of this course a student will have obtained the hours of education required by the North Carolina Real Estate Commission to sit for the Real Estate Salesman Licensing Examination. Along with obtaining the education hours required, an individual must possess a working knowledge of the following:

1. "Property Ownership and Interest", transfer of title, land use controls, landlord and tenant law, federal income taxation of homeownership, and property management.
2. Real estate brokerage law and practices such as law of agency, fair housing, basic contract law, closing statements, property management.
3. License Law, Real Estate Commission rules and trust account guidelines.
4. How to obtain financing for a buyer and be able to define types of financing, sources of financing and qualify buyers as to the type financing needed to purchase a particular property.
5. Value a house or property according to basic value concepts.
6. Learn to use real estate mathematics such as: finance calculations, appraisal calculations, closing statement prorations and problems; miscellaneous calculations such as: commissions, estimating sale price to net seller a designated amount, profit/loss area, revenue stamps, income tax, real estate tax.

REAL ESTATE CERTIFICATE
COURSE AND HOUR REQUIREMENTS

Major Courses	Credit Hours	Related Courses	Credit Hours
RLS 162	6	BUS 109	4
RLS 164	3		
RLS 209	3	**Work Experience/Electives**	0
RLS 234	3		
	15		

Total credit hours required for certificate: 19

CERTIFICATE IN RESIDENTIAL CARPENTRY (V-007) (Certificate)

The Residential Carpentry program trains students to construct and make repairs to residential structures using standard building materials and hand and power tools. This program is designed to teach carpentry skills and a general knowledge of residential construction. Instruction also includes the study of mathematics, blueprint reading, building codes and energy efficient construction.

COURSE AND HOUR REQUIREMENTS

Required Courses			Credit Hours
CAR	1101	Carpentry I	4
CAR	1301	Carpentry II	4
CAR	1102	Carpentry III	4
CAR	1302	Carpentry IV	4
CAR	1305	Building Code	4

Total credit hours required for certificate: 20

CERTIFICATE IN RESIDENTIAL PLUMBING

The Plumbing certificate program is designed to offer a faster track for preparing for residential plumbing skills. This is accomplished by focusing on residential venting, drains, water systems and fixture installation. Code requirements are included as a part of this study. This certificate will prepare a student for residential rough-in and finish work.

COURSE AND HOUR REQUIREMENTS

Required Courses			Credit Hours
PLU	1113	Drainage and Vent Systems	8
PLU	1112	Installation of Plumbing Fixtures	4
PLU	1114	Residential Water Systems	6
PLU	1128	North Carolina Plumbing Code	4

Total Credit hours required for certificate: 22

COURSE DESCRIPTIONS

ACCOUNTING

Class Lab or Shop Credit Hours

ACC 120—Accounting I 4 4 6
Principles, techniques and tools of accounting, summarizing, analyzing and reporting information about service and mercantile enterprises, to include practical application of the principles learned. Prerequisite: BUS 109.

ACC 121—Accounting II 4 4 6
Partnership and cooperation accounting including a study of payrolls, federal and state taxes. Emphasis is placed on the recording, summarizing and interpreting data for management control rather than on bookkeeping skills. Accounting services are shown as they contribute to the recognition and solution to management problems. Prerequisite: ACC 120.

ACC 130—Financial Accounting for Banking 3 0 3
This course is designed especially for those persons who will work in the Banking and Credit Union profession. It will prepare those students who so desire to be able to take the Certified Credit Union Executive Exam. It is being offered at the request of the local credit union and will be elective credit for those completing it. The course includes a study of the Financial Statements from the Bank or Credit Union Point of View, along with the other areas that are unique to the Banking Industry.

ACC 222—Accounting III 4 4 6
Thorough treatment of the field of general accounting, providing the necessary foundation for specialized studies that follow. The course includes among other aspects, the balance sheet, income and surplus statements, fundamental processes of recording, cash and temporary investments, and analysis of working capitals. Prerequisite: ACC 121.

ACC 223—Intermediate Accounting I 4 4 6
This course represents concepts adhered to in modern accounting, including the principles, procedures, and methods that are applied in the preparation of financial statements. Changes in the form of content of basic financial statements receive special emphasis. Prerequisite: ACC 222.

ACC 224—Intermediate Accounting II 4 4 6
This course provides instruction in the organizational, structural, and financial levels of accounting. Special emphasis being given to owners equity, business financing, bonds and notes, etc. Prerequisite: ACC 223.

ACC 225—Cost Accounting I 2 2 3
Nature and purposes of cost accounting; accounting for direct labor, materials and factory burden; job cost and standard cost principles and procedures; selling and distribution cost; budgets and executive use of cost figures. Prerequisite: ACC 222.

ACC 226—Cost Accounting II 2 2 3
Continued study in cost accounting with emphasis on process cost systems, standard cost accounting and cost analysis for management decision making. Prerequisite: ACC 225.

ACC 227—Intermediate Accounting III 4 4 6
This course is designed to complete the student's understanding of accounting procedures. Topics of study are Accounting for Income Taxes, Retained Earnings, Contributed Capital, Non-operating Income, Financial Position Analysis, and Future and Present Value. Prerequisite: ACC 224

ACC 229—Taxes I 4 0 4
Preparation of Individual Tax Returns — 1040EZ, 1040A, 1040, Schedules A and B — are covered in this course, along with other supporting schedules and forms.

ACC 230—Taxes II 4 0 4
This course provides instruction to Business and Professional Tax Returns. More involved and complicated tax situations — Capital Gains and Losses, Retirement Plans, etc. — are given special emphasis. Instruction in Partnership and Corporation Taxes and Tax Returns is also provided. Prerequisite: ACC 229.

ACC 269—Auditing 3 0 3
Principles of conducting audits and investigations; setting up accounts based upon audits; collecting data on working papers; arranging and systemizing the audit and writing the audit report. Emphasis is placed on detailed audits, internal auditing and internal control. Prerequisite: ACC 223.

ACC 291—Governmental Accounting 3 0 3
This course is designed for persons who are working or would like to work for a governmental agency or nonprofit entity. It would cover topics of study that are unique to this area.

AIR CONDITIONING, HEATING AND REFRIGERATION

AHR 1101—Auto Air Conditioning 2 6 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.

AHR 1104—ACHR Law: Mechanical and Gas and Piping Codes 4 0 4
An in-depth study of the North Carolina code for Heating/Air conditioning/Refrigeration as set forth by the General Statute. The purpose of the code and the affect these provisions will impose upon the pertinent industry will be covered by this course.

AHR 1105—ACHR Law: Administrative and Building Code 4 0 4
An in-depth study of the North Carolina Code for Heating/Air Conditioning/Refrigeration as set forth by the General Statute. The purpose of the code and the affect these provisions will impose upon the residential and building code VII, and the administrative code book will be covered in this course.

AHR 1115—Fundamentals of Heating 2 6 4
An introduction to the fundamentals of heating and heat transfer related to various types of heating systems. The use and care of tools, using instruments to measure combustion efficiencies and installing equipment and ductwork to make up a heating system are covered. Also, introduced are comfort surveys, and maintenance, solar heating and heat distribution systems.

AHR 1121—Principles of Refrigeration 2 6 4
An introduction to the principles of refrigeration, terminology, the use and care of tools and equipment and the identification and function of the components of a system. Other topics to be included will be the basic laws of refrigeration; characteristics and comparison of the various refrigerants; the use and construction of valves, fittings and basic controls. Practical work includes tube bending, flaring and soldering. Standard procedures and safety measures are stressed in the use of special refrigeration service equipment and the handling of refrigerants.

AHR 1122—Domestic and Commercial Refrigeration 2 6 4
Domestic refrigeration servicing of conventional, hermetic and absorption systems. Cabinet care, controls and system maintenance in domestic refrigerators, freezers and window air conditioning units are stressed. Commercial refrigeration servicing of display cabinets, walk-in cooler and freezer units and mobile refrigeration systems is studied. Using manufacturer's catalogs in sizing and matching system components and a study of control, refrigerants servicing methods is made. The American Standard Safety Code for Refrigeration is studied and its principles practiced. Prerequisite: AHR 1121.

AHR 1123—Principles of Air Conditioning 2 6 4
Work includes the selection of various heating, cooling, and ventilating systems, investigation and control of factors affecting air cleaning, movement, temperature and humidity. Use is made of psychometric charts in determining needs to produce optimum temperature and humidity control. Commercial air conditioning equipment is assembled and tested. Practical sizing and balancing of ductwork is performed as needed. Prerequisite: AHR 1122.

AHR 1124—Air Conditioning and Refrigeration Servicing 2 6 4
Emphasis is placed on the installation, maintenance and servicing of equipment used in the cleaning, changing, humidification and temperature control of air in an air conditioned space. Installation of various ducts and lines needed to connect various components is made. Shop work involves burner operation, controls, testing and adjusting of air conditioning and refrigeration equipment failure. Prerequisite: AHR 1123.

AHR 1126—All Year Comfort System 2 6 4
Equipment used to provide heating and cooling for "all year" comfort will be studied. Included will be heat pumps, oil fired, gas fired, water circulating, electric-resistance and an introduction to solar heating and cooling systems. Specialized controls required for all year comfort systems, preventive maintenance, and balancing are included in the course.

AHR 1128—Automatic Controls 2 6 4
Types of automatic controls and their function in air conditioning systems. Included in the course will be electric and pneumatic controls for domestic and commercial cooling and heating; zone controls, unit heater and ventilator controls, commercial fan systems controls, commercial refrigeration controls and radiant panel controls. Prerequisite: AHR 1126.

AHR 1130—Year Around Duct System Design 4 0 4
This course will enable the Air Conditioning, Heating and Refrigeration student to design the necessary ductwork for residential and light commercial structures. Students will be able to also evaluate existing duct systems for adequate existing duct systems for adequate performance. This course is based on ACCA Manual D, D1 and D2 worksheets, thereby assuring a duct system design that will meet all code jurisdictions.

ART

ART 106—Art Appreciation 5 0 5
Provides an appreciation and understanding of visual art through the study of the

elements, languages, and many forms of art. Includes the study of famous artists and their masterpieces.

ART 107—Film Appreciation 5 0 5
A consideration of the history and techniques of the media as advancing technology has affected creative thinking.

ART 111—Two Dimensional Design 2 2 3
This course concentrates on the basic elements and principles of two dimensional design, as well as the concepts of artistic composition. The student will complete a series of projects in various media.

ART 112—Color and Design 2 2 3
Color and Design will advance the concepts explored in Two Dimensional Design and will also cover in depth the principles of color theory.

ART 113—Three Dimensional Design 2 2 3
This course is an introduction to three dimensional design and the structure of space. The student is introduced to the artistic possibilities of such common materials as paper, fabric, fibers, plastic, metal, wood, etc. The student will complete a series of projects using such materials.

ART 121—Drawing I 2 2 3
A general introduction for the beginning art student who wishes to develop an ability to create two dimensional representational images in traditional drawing media. A series of still life and structural problems are covered.

ART 122—Drawing II 2 2 3
A continuation of Drawing I with emphasis on figure drawing and portraiture. Prerequisite: ART 121 or approval of art coordinator.

ART 123—Drawing III 2 2 3
For the student ready to explore advanced drawing techniques. Experimentation is encouraged to allow the student to work toward discovering personal expression and individual style. Prerequisite: ART 122 or approval of art coordinator.

ART 131—Introduction to Studio Painting 2 2 3
This course is an introduction of the techniques and mechanics of painting with emphasis on the art elements and principles. Students will learn by lecture, demonstration and practice while working in alkyd or oil, acrylic, and watercolor. Prerequisite: ART 121 or approval of art coordinator.

ART 132—Studio Painting II 2 2 3
A continuation of the techniques of oil, alkyd, and acrylic painting. Students work toward increasing compositional and technical skills, as well as developing an individualized approach to handling these media. Prerequisite: ART 131 or approval of art coordinator.

ART 133—Studio Painting III 2 2 3
Traditional and creative explorations into the materials and techniques of watercolor will be part of this course. After confidence is gained, individual expression will be encouraged. Mixed media effects will also be studied. Prerequisite: ART 131 or approval of art coordinator.

ART 161—History of Western Art to the Renaissance 3 0 3
A survey of the history of visual art forms from ancient times to the Renaissance, emphasizing the impact of masterpieces and design innovations on the past and present.

ART 162—History of Western Art Since the Renaissance 3 0 3
A survey of the development of visual art forms from the Renaissance to Modern. Emphasis is on understanding the movements of Modern and Contemporary art.

ART 165—Survey of American Art 3 0 3
A study of the principal painters, sculptors, architects, and craftsmen in America from Colonial times to the present.

ART 224—Introduction to Printmaking 2 2 3
This course will introduce to the student various printmaking techniques, including monoprints, relief, intaglio and planographic processes. Studio projects will concentrate on the relief and intaglio techniques. Prerequisite: ART 121, or any basic drawing class.

ART 291—Exhibition Assistantship I 0 2 1
Course specifically for art majors, or others with strong art interest, willing to work with the College Gallery and the College Art Center Gallery. The student will gain knowledge in preparing exhibition graphics, as well as all handling of art work before, during and after exhibition. May also assist the juror during the juried exhibition. Approval of art coordinator is required.

ART 292—Exhibition Assistantship II 0 2 1
A continuation of Exhibition Assistantship I with additional experience gained during another season's exhibits. Prerequisite: Approval of art coordinator.

ART 295—Special Topics in Art (1 to 3 credit hours)
Special seminars and workshops in different subject areas. May be repeated for credit with changes in the topics.

AUTO BODY REPAIR - AUTO MECHANICS

AUT 1101—Internal Combustion Engines I 5 3 6
Development of a thorough knowledge and ability in using, maintaining and storing the various hand tools and measuring devices needed in engine repair work. Study of the construction and operation of components of internal combustion engines. Testing of engine performance, servicing and maintaining of pistons, valves, cams and camshafts, fuel and exhaust systems, cooling systems, proper lubrication and methods of testing, diagnosing, and repairing.

AUT 1102—Engine Electrical Systems 5 3 6
A thorough study of the electrical systems in the automobile. Battery cranking mechanism, generator, ignition, accessories and wiring.

AUT 1103—Automotive Analyzing Equipment 5 3 6
Development of a thorough knowledge of and ability to use engine analyzing equipment. The testing of the ignition system, fuel system, exhaust, and emissions system.

AUT 1111—Auto Body Repair I 2 6 4
Basic principles of automobile construction, design and manufacturing. A thorough study of angles, crown and forming of steel into complex contour of the present day vehicles. The student applies the basic principles of straightening, aligning and painting of damaged areas.

AUT 1112—Auto Body Repair III 2 6 4
A thorough study of the requirements for a metal worker, including the use of essential tools, forming fender flanges and beads, and straightening typical auto body damage. The student begins acquiring skills such as shaping angles, crowns and contours of the metal of the body and fenders. Metal working and painting.

AUT 1113—Metal Finishing and Painting I 2 6 4
Development of the skill to shrink stretched metal, soldering and leading and preparation of the metal for painting. Straightening of doors, hoods and deck lids; fitting and aligning. Painting fenders and panels, spot repairs and complete vehicle painting; the use and application of power tools.

AUT 1114—Body Shop Applications I 2 6 4
General introduction and instruction in the automotive frame and front end suspension systems, the methods of operation and control and the safety of the vehicle. Unit job application covers straightening of frames and front wheel alignment. The student applies all phases of training: repair order writing, parts purchasing, estimates of damage and developing the final settlement with the adjuster.

AUT 1123—Brakes 2 6 4
A complete study of various braking systems employed on automobiles and light trucks.

AUT 1221—Front Alignment 2 6 4
Theory of operation, correct disassembly and mounting of all front suspension parts of various types of frames (care and light truck). A thorough understanding of the function and repair of steering gears (power and standard), shock absorbers, springs, wheels and tires, pumps, rams and other steering parts and accessories is gained. Theory and application of steering geometry, correct diagnosis of problems and use of the alignment and balancing machines; analysis and correction of tire wearing problems, vibrations, hard steering, pulling and other problems.

AUT 1227—Power Accessories 1 3 2
This course will teach the student principles and operations of the power accessories of the modern automobile. The student will study and repair the power accessory units such as power steering, power windows, power seats, power antennas, power headlights, power tailgaits, windshield wipers, and windshield washers.

AUT 1301—Internal Combustion Engines II 2 6 4
A continuation of AUT 1101.

AUT 1302—Fuel Systems 5 3 6
A thorough study of the fuel systems in the automobile, fuel pump carburetors and fuel injectors. The characteristics of fuel, type of fuel system, special tools, and testing equipment.

AUT 1311—Auto Body Repair II 3 9 6
A continuation of AUT 1111.

AUT 1312—Auto Body Repair IV 3 9 6
A continuation of AUT 1112.

AUT 1313—Metal Finishing and Painting II 3 9 6
A continuation of AUT 1113.

AUT 1314—Body Shop Applications II 3 9 6
A continuation of AUT 1114.

BIOLOGY

BIO 101—Biology I - Principles of Biology 3 2 4
An introduction to basic biological principles, including elementary chemistry, cell

structure and function, genetics, molecular biology, ecology and evolution.

BIO 102—Biology II - Zoology 3 2 4
A study of the animal kingdom including study of selected animals from each of the major groups. Emphasis is placed on the vertebrates.

BIO 103—Biology III - Botany 3 2 4
A survey of the plant kingdom including study of selected plants from each of the major groups, with emphasis on the seed plants.

BIO 107—Anatomy and Physiology I 3 2 0 4
A study of the structure and normal function of the human body with man identified as a living organism composed of living cells, tissues, organs, and systems. Included are the basic physiologic aspects of skin; the skeletal, articular, muscular, and nervous systems; and the special senses. A laboratory portion includes relevant experiments to augment the student's learning of body structure and functions.

BIO 108—Anatomy and Physiology II 3 2 0 4
A continuation of the study of the structure and normal function of man as a living organism. Special emphasis is on the circulatory, lymphatic, respiratory, digestive, urinary, endocrine, and reproductive systems and fluid and electrolyte balance. Laboratory experiences included study of models and small animal dissection for insight into comparative structure and function of man. Prerequisite: BIO 107.

BIO 109—Anatomy and Physiology III 3 2 0 4
This course is the third in a sequential series of three courses on human physiological processes of the body systems. Prerequisites: BIO 107 and BIO 108.

BIO 205—Microbiology I 3 2 4
A study of General Microbiology including identification, classification, morphology and culture methods of the representative groups.

BIO 206—Microbiology II 1 2 2
This course is the second in the sequential series of two courses. The focus of this study will be selected microorganisms; including bacteria, fungi, viruses, and protozoa, and the diseases or problems resulting from their growth and transmission. Prerequisite: BIO 205.

BOTANY

BOT 202—Advanced Botany 3 2 4
A comprehensive study of the animal kingdom including anatomy, physiology, taxonomy, and ecology. Special emphasis will be placed on the higher plants. Prerequisites: BIO 101, 102, 103, or permission of instructor.

BLUEPRINT READING

BPR 122—Industrial Drawing 4 0 4
Drafting fundamentals and blueprints interpreting techniques common to commercial buildings covered from a safety technician's point of view. Schematics and diagrams to include electrical, plumbing, and heating installations using appropriate symbols and notes.

BPR 1001—Blueprint Layout and Design 4 0 4
Building Trades-Principles of interpreting blueprints and specifications common to the building trades. Development of proficiency in making three views and pictorial sketches.

BPR 1104—Blueprint Reading: Mechanical 3 0 3
Mechanical-Interpretation and reading of blueprints. Information on the basic principles of the blueprint; lines, views, dimensioning procedures, and notes.

BPR 1113—Blueprint Reading: Electrical 4 0 4
Electrical-Interpretation of schematics, diagrams and blueprints applicable to electrical installations with emphasis on electrical plans for domestic and commercial buildings. Sketching schematics, diagrams and electrical plans for electrical installation using appropriate symbols and notes according to the applicable codes will be a part of this course.

BPR 1115—Blueprint Reading: Plumbing 4 0 4
Sketching diagrams and schematics, and interpretation of blueprints applicable to the plumbing trades. Emphasis will be on plumbing plans for domestic and commercial buildings. Piping symbols, schematics, diagrams and notes will be studied in detail. Applicable building and plumbing codes will be used for reference.

BPR 1116—Blueprint Reading: Air Conditioning 4 0 4
A specialized course in drafting for the heating, air conditioning and refrigeration student. Emphasis will be placed on reading of blueprints that are common to the trade; blueprints of mechanical components, assembly drawings, wiring diagrams, and schematics, floor plans, heating system plans including duct and equipment layout plans shop sketches. The student will make tracings of floor plans and layout air conditioning.

BPR 1305—Blueprint Reading for Machinist 4 0 4
Advanced blueprint reading as related to actual complete detailed drawings found in machine shops. Discussion as to how pieces will be produced and this relationship to the drawing.

BUSINESS

BUS 101—Introduction to Business 4 0 4
A survey of the business world with particular attention devoted to the structure of the various types of business organizations, methods of financing, internal organizations, and management. Students learn the basic fundamentals of the free enterprise system.

BUS 109—Business Math 4 0 4
This course stresses the fundamental operations and their application to business problems. Topics covered include: fractions, decimals, percents, ratios, payroll, interest, and installment buying. Prerequisite: MAT 100.

BUS 115—Business Law I 4 0 4
A general course designed to acquaint the student with certain fundamental and principles of business law, including contracts, negotiable instruments and agencies.

BUS 116—Business Law II 4 0 4
Includes the study of laws pertaining to bailments, sales risk-bearing, partnership-corporation, mortgages and property rights. Prerequisite: BUS 115.

BUS 117—Personal Law 4 0 4
A general survey of law as it affects the individual citizen including the court system and protection of the individual's rights. Emphasis is placed on the Bill of Rights to the U.S. Constitution. Laws governing vehicle operation, domestic relations and consumer protection will also be covered.

BUS 123—Business Finance I 4 0 4
Financing of business units, as individuals, partnerships, corporations and trusts. A detailed study is made of short-term, long-term and consumer financing.

BUS 124—Business Finance II 4 0 4
Financing federal, state and local government and the ensuing effects upon the economy. Factors affecting supply of funds, monetary and credit policies. Prerequisite: BUS 123.

BUS 127—REAL - Small Business I 4 0 4
"REAL" stands for Rural Entrepreneurship through Active Learning. This unique course of study allows the student to not only learn how to open a small business, but it also allows them to see if they are entrepreneurship material. During their course work they will analyze the local community, decide on the business they intend to operate and experience the actual life of the business. In REAL, you will learn and analyze your progress as you go. Learning will take place in the classroom, as well as out in the community with fellow students, instructors and Community Support Team Members.

BUS 128—REAL - Small Business II 4 0 4
"REAL II" is the advance study of entrepreneur- ship. Through this course the student will acquire the information needed to write a viable business plan to implement and to seek funding. They will further research the elements of business in order to develop their skills. Suggested prerequisites: REAL I - Small Business I.

BUS 129—Professional Imaging 4 0 4
Professional Imaging is an indepth study of "Expectations" in the career search. It is designed to help the students look at their skills and how to communicate them. Through various learning methods the student will be exposed to interviewing, resume writing, job seeking techniques and other ways to project the image of a positive prospective employee. This course has proven itself to be effective in developing a positive self-image in both written and verbal word.

BUS 204—Business Communications 4 0 4
Develops skills and techniques in writing and typing business communications. Emphasis is placed on writing and typing action-getting sales letters and prospectuses. Business reports, letters involving credit, collections, adjustments, complaints, orders, acknowledgments, remittances, and inquiry are covered in this course. Prerequisites: OSC 102 and ENG 130.

BUS 219—Credit Procedures and Problems 4 0 4
Principles and practices in the extension of credit; collection procedures; laws pertaining to credit extension and collection are included.

BUS 231—Leadership Development 2 2 3
Leadership Development helps the student attain the personal attributes and managerial skills that foster success on the job. Case histories, self-assessment quizzes, and step-by-step guidelines build students' self-confidence while covering personality development, speech power, memory, creativity selling, telephone technique, management and leadership, personal appearance, business and social success, and employment.

BUS 233—Human Resources Management 4 0 4
Principles of organization and management of personal, procurement, placement training, performance, checking, supervision, remuneration, labor relations, fringe benefits and security.

BUS 235—Business Management 4 0 4
Principles of business management including overview of major functions of management, such as planning, staffing, controlling, directing and financing. Clarification of the decision-making function versus the operating function. Role of management in business qualifications and requirements.

BUS 271—Office Management 4 0 4
Presents the fundamental principles of office management. Emphasis is on the role of office management including its functions, office automation, planning, controlling, organizing, and actuating office problems.

BUS 287—Small Business Management 4 0 4
"How to" introduction to the practices involved in small business operations. For business people who will one day find themselves financially able to start or buy a business; it provides an overview of the major problems they will face and the pitfalls they must avoid if success is to be assured.

BUS 290—Personal Finance and Money Management 2 2 4
Personal finance and management presents an in-depth study of personal financial decisions the average person can expect to confront, including the basics of budgeting, the intricacies of home ownership, income tax, and investment, and the wise use of insurance, wills, and trusts.

BUS 1103—Small Business Operations 4 0 4
An introduction to the practices involved in small business operations. For business people who may start or buy a business; it provides an overview of the major problems they will face and the pitfalls they must avoid in order to succeed.

CARPENTRY

CAR 1101—Carpentry I 2 6 4
Carpentry I is a course designed to provide the student with the necessary skills to use power and hand tools safely and according to their recommended use. The student will also be able to correctly identify all power and hand tools relating to the field of carpentry. Lecture and shop will provide experience and knowledge in this course.

CAR 1102—Carpentry III 2 6 4
Carpentry III is a course designed to enable a student to have competency in building floor systems of various types. The student will be able to correctly estimate and determine floor joist size. The student will learn the limitations of construction grade lumber and how to correctly size lumber for girders, headers and floor joists. Lecture and shop will provide experience and knowledge in this course.

CAR 1103—Carpentry V 2 6 4
Carpentry V is a course designed to enable a student to have competency in building and framing roof structures. The various types of roofs will be covered, and the student will be able to identify each and have a general idea of how each is constructed. How to cut and figure rafters will be covered. Also, truss application will be covered.

CAR 1104—Carpentry VII 2 6 4
Carpentry VII is a course designed to give a student competency in finished carpentry in the interior of a structure. This course will cover interior wall finish and how to run moldings of various types. It will also include how to install various types of hardware (hinges, locks, hasps, rollers) and how to install cabinets and mechanical devices. Stairs and stairway construction will be a major part covered in this course.

CAR 1106—Construction Seminar 4 0 4
Designed to survey current and new techniques in the construction field. This will be done through class research, demonstration, and lecture. Students will participate in all facets of the institutional process. Subject areas will be: innovations in the construction field, site layout, traditional techniques, materials and methods comparison, and approved areas for research such as solar energy and geothermal applications.

CAR 1301—Carpentry II 2 6 4
Carpentry II is a course designed to enable a student to properly lay-off and stake-out a house. Practice in site work (using a transit and builder's level) will be an important topic of study. Carpentry II is a course designed to provide the student with the skills necessary to lay block and brick, to align and also to construct simple corners and foundation walls. Lecture and laboratory will be coordinated to provide development in the skilled area.

CAR 1302—Carpentry IV 2 6 4
Carpentry IV is a course designed to enable a student to have competency in constructing walls. Corner construction and partition intersection framing will enable the student to assemble all exterior and partitioned walls. The course will cover how to properly locate and frame all windows and

door openings. Bracing of walls and preparing walls for rafters will also be covered.

CAR 1303—Carpentry VI 2 6 4
Carpentry VI is a course designed to enable a student to have competency in the exterior finish of a structure. Major things covered in this course will be: how to frame and finish overhang gutter work, door and window frames, wall coverings and trim.

CAR 1304—Carpentry VIII 2 6 4
Carpentry VIII is a course designed to give the student general knowledge and experience in cabinet work.

CAR 1305—Building Code 4 0 4
This Building Code is designed to give the student specific knowledge in residential building construction. The North Carolina Uniform Residential Building Code will be studied. Lecture will give the student knowledge and experience on how to use this book.

MICROCOMPUTER SYSTEMS TECHNOLOGY

CAS 101—Introduction to Computer Technology 4 0 4
An introductory course designed to acquaint the student with the fundamentals of computers and computer processing. This course is appropriate for Microcomputer Systems Technology students as well as for students in other curriculums which require a computer literacy course. It is designed to help students understand how a computer works, its capabilities and its limitations. Computer terminology, computer hardware, microcomputer operations, and software applications will be emphasized. Prerequisite: None.

CAS 102—Microcomputer Applications 4 0 4
A survey course where students learn how to interact with a computer while learning fundamental skills in several computer applications such as word processing, file management, and spreadsheets using integrated software. This course may be taken at the same time as CAS 101. Prerequisite: OSC 102 or demonstration of typing proficiency.

CAS 104—Health Care Computer Literacy 0 2 1
This course is designed to introduce computer technology to students or practicing health care professionals. The course will provide fundamental computer terminology while stressing applications that are important to the delivery of health care.

CAS 105—Introduction to Logic 4 0 4
This course introduces the student to the role of the programmer in the field of microcomputers. Computer input/output, processing analysis, flowcharting, and structured programming principles will aid the student in gaining an understanding of the logical steps required by the computer to complete its tasks. Hands-on approach with Visual Basic will help the student develop a comprehension of the fundamental steps of microcomputer programming.

CAS 106—Word Processing I 3 2 4
An extensive course designed to teach computer users word processing skills using WordPerfect for Windows. Skills learned include creating, editing, saving, and printing, and storing documents. Other topics are typing enhancement, multi-page documents, tabs, and block operations. Prerequisite: OSC 102 or demonstration of typing proficiency.

CAS 107—Word Processing II 3 2 4
A continuation of CAS 106 using advanced concepts in WordPerfect, such as merging, graphics, sorting, envelopes, columnar text, tables, labels, and outlines. Prerequisite: CAS 106.

CAS 108—Computer Literacy - ADN1 2 2
This course focuses on computer science applications for students enrolled in the associate degree (RN) nursing program or students applying for the associate degree (RN) nursing program.

CAS 120—Microcomputer Operating Systems 3 2 4
The microcomputer operating system is the focus of this course as students are acquainted with the commands and functions of the disk operating system. Emphasis is placed on controlling input and output, hard disk management, maintenance utilities, and software installation. Prerequisite: CAS 101.

CAS 121—Advanced Microcomputer Operating Systems 3 2 4
(Approval pending Fall 1996)
A course in advanced operating system commands, memory management methods, and advanced batch file techniques. Various operating systems will be covered in this class. Prerequisites: CAS 120 or appropriate wavier.

CAS 130—Microcomputer Graphics 3 2 4
Introductory course designed to acquaint the student with microcomputer graphics software capabilities. Students will use the microcomputer graphics software to produce visual displays of processed data. Students will also learn to evaluate, select, maintain and utilize microcomputer graphics software. Prerequisite: CAS 101.

CAS 135—Desktop Publishing 3 2 4
Using a microcomputer and desktop publishing software to assemble words and illustrations on a page will be studied in this course. The students will learn to produce attractive brochures, pamphlets, manuals, newsletters, and other documents. Terminology and skills from printing and publishing, graphic arts, and computers are emphasized. Prerequisite: CAS 106.

CAS 140—Hardware Maintenance and Installation 3 2 4
This course is designed to introduce the student to microcomputer hardware components. Topics include diagnostic testing procedures, installation of memory and peripherals, general maintenance and troubleshooting. Prerequisite: CAS 101 or permission of instructor.

CAS 141—Advanced Hardware Maintenance and Installation 3 2 4
This course is a continuation of CAS 140. Topics include printer installation and maintenance, printer sharing devices, installation of multimedia peripherals, the SCSI interface, and hard disk failure recovery. Prerequisite: CAS 140.

CAS 150—Integrated Spreadsheets 3 2 4
A course designed to teach users spreadsheet fundamentals, including spreadsheet design, formula creation, setting up three dimensional spreadsheets, and producing graphs. Prerequisite: CAS 101 or permission of instructor.

CAS 151—Advanced Spreadsheets 3 2 4
An advanced course in the utilization of integrated spreadsheet software. Emphasis will be placed on database functions, file linking, advanced spreadsheet commands, and macro programming. Advanced LOTUS commands and concepts will be taught through the use of realistic examples and practical lab applications. Prerequisite: CAS 150.

CAS 160—Windows 4 0 4
This course is designed to familiarize the student with Windows' capabilities and uses. Topics include working in a graphical user interface environment, program and file management, accessories including Write and Paintbrush, printing, installing applications, and customization. Prerequisite: CAS 101 or CAS 102 or permission of instructor.

CAS 170—Presenting Technical Information 3 2 4
This course is designed to give the student proficiency in writing technical reports, making presentations, using charts and graphs, conducting meetings and communicating technical information in a variety of ways. Computers will be used for word processing, creating and using graphic elements, multi-media techniques and demonstrations. Prerequisite: CAS 106 or CAS 102 or permission of instructor.

CAS 180—Local Area Networks 4 0 4
(Approval pending Fall 1996)
This course will examine the methods used to interconnect and manage distributed intelligent workstations and distributed resources. It is designed to meet the needs of the novice who requires an introduction to LANs as well as the more experienced user who has some network experience. At the end of the course the student will understand hardware requirements, including cables, servers, workstations, interface cards and backup systems. They will also understand software requirements, including protocols, operating systems and applications software. Prerequisites: CAS 120

CAS 181—Network Technology I 4 0 4
(Approval pending Fall 1996)
This course covers numerous concepts of data communication, networking, and connectivity. Topics include data translation, data transmission, network structures, the OSI model, and protocol implementations.

CAS 182—Network Technology II 4 0 4
(Approval pending Fall 1996)
A continuation of CAS 181. Topics include IEEE-802 communication protocol implementations, upper layer communication protocols, and future trends. Prerequisite: CAS 181

CAS 183—Multi-User Operating Systems 3 0 3
(Approval pending Fall 1996)
This is a general course in using and understanding multi-user operating systems. Exercises are used to provide experience in solving various data communication problems. Prerequisites: CAS 120 or appropriate wavier.

CAS 184—Connectivity and Access 4 2 5
(Approval pending Fall 1996)
This course covers asynchronous connectivity products designed to provide multiple access methods to file services, application services, and communication services on local and remote LANs. Prerequisite: CAS 231.

CAS 210—Microcomputer Office Systems 4 0 4
This class consists of two parts. Part I will be a study of the concepts and steps involved in systems development. Part II will include the issue of ethics and information. Prerequisites: CAS 101, CAS 102, CAS 120, CAS 150, CAS 106, CAS 212, CAS 140.

CAS 212—DataBase Management 3 2 4
An introduction to using database management applications on personal computers. Creation, inquiry, updating and reporting are learned through business applications. The student will gain a working knowledge of database software through menu commands. Prerequisite: CAS 101 or permission of instructor.

CAS 213—Advanced DataBase Management 3 2 4
This class is designed to teach advanced concepts in database management. Students will gain an understanding of developing application concepts to allow customizing of whole multifile systems for use in business. Prerequisite: CAS 212.

CAS 230—Data Communications I 3 2 4
Students are introduced to the concepts and technology of data communications in the context of computerized information systems. Includes a study of telecommunications, communications software, FAX, voice mail, and distributed data processing. Other topics include trends in application and technology, and an overview of local area networks. Prerequisite: CAS 120 or permission of instructor.

CAS 231—Data Communications II 3 2 4
The latest concepts and technologies of local area networks are introduced in this course. Learning will be facilitated through a current LAN operating system in a "hands-on" environment. Included topics of study are the development of networks, networking standards, choosing/ evaluating networking systems, security implementation and application processing. Prerequisite: CAS 230.

CAS 240—Automated Accounting Systems 3 2 4
The student is acquainted with integrated accounting software. Modules of study include accounts payable, general ledger, invoicing, inventory control, and payroll. (Peachtree Complete Accounting software will be the basis for this study.) Prerequisites: ACC 120, ACC 121.

CAS 260—Microcomputer Training and Support 4 0 4
This course is designed to introduce the student to training and support techniques. Writing and using documentation; selecting, learning, and teaching software packages; vendor resources; and adult education theory will be included. This course prepares the student to work with management and technical personnel responsible for information processing functions. Prerequisite: CAS 210.

CAS 275—Microcomputer System Project 3 2 4
Using a "projects approach", the student will incorporate the many facets of his/her training. All skills acquired in previous coursework is the basis for an integrated project. Emphasis is placed on "hands-on", real-life experience. Prerequisite: CAS 210 or permission of instructor.

CAS 280—Client-Server Systems I 4 2 5
(Approval pending Fall 1996)
An introduction to basic client-server concepts, terminology, client-server architectures, distributed file systems, and client-server applications. Prerequisite: CAS 282

CAS 281—Client-Server Systems II 4 2 5
(Approval pending Fall 1996)
A continuation of CAS 280 with more experience with client-server application software and tools. Prerequisite: CAS 280

CAS 282—Network System Administration 4 2 5
(Approval pending Fall 1996)
This course provides students with the knowledge and skills to function as a network administrator or manager. Topics include basic network commands and utilities, setting up users, assigning access rights, writing menus and login scripts, network printing, and installing network applications. Preresuisite: CAS 180

CAS 283—Advanced Network System Administration 4 2 5
(Approval pending Fall 1996)
A continuation of CAS 282. This course provides network administrators with information to enhance network monitoring and management skills. Topics include installation and configuration, server protocol support, server memory management, server maintenance, and advanced print services. Prerequisite: CAS 282

CAS 284—Network Support I 3 2 4
(Approval pending Fall 1996)
This course focuses on installing, diagnosing, and troubleshooting networks. The course prepares students to service and support networking systems. Topics include board configuration, cabling systems, disk expansion, diagnostic procedures and utilities, and disaster recovery. Prerequisite: CAS 282

CAS 285—Network Support II 3 2 4
(Approval pending Fall 1996)
A continuation of CAS 284 with additional practice in troubleshooting and disaster recovery. Various means of support plans will be discussed with additional study on problem recognition. Prerequisite: CAS 284

CHEMISTRY

CHM 100—Chemistry - An Introduction 2 2 3
An overview of general chemistry with emphasis on applications to the health sciences designed for students needing a chemistry prerequisite for the nursing curriculum or those who wish to enroll in general chemistry but have a deficient background. Topics included will be: measurement, metric system, description of the elements, chemical and physical properties of matter, basic atomic structure, introduction to radioactivity, nomenclature, chemical reactions, gas laws, solution properties, and pH. Lab work and demonstrations will reinforce topics covered. Prerequisite: 1 year high school algebra or permission of instructor.

CHM 101—Chemistry I 3 2 4
Basic principles of chemistry including metric system of measurement, elements, chemical and physical properties of matter, atomic structure, introduction to radioactivity, nomenclature of inorganic compounds, chemical reactions and stoichiometry. Laboratory work will be used to demonstrate these principles. Prerequisite or Corequisite: MAT 121 or equivalent; or science faculty approval.

CHM 102—Chemistry II 3 2 4
A continuation of Chemistry I including: gas laws, introduction to thermodynamics, electronic structure, bonding (including Ldwis dot, valence bond, and molecular orbital theory) states of matter. Qualitative and quantitative laboratory work and computer simulations will be used to demonstrate principles covered. Prerequisite: CHM 101.

CHM 103—Chemistry III 3 2 4
A continuation of Chemistry II covering solution concentration and properties, redox reaction and introductory electrochemistry, kinetics and equilibrium of reactions, pH and buffers, solubility products. Laboratory work will reinforce principles covered. Prerequisite: CHM 102.

CRIMINAL JUSTICE

CJC 100—Basic Law Enforcement Training 16-0-33-27
This course prepares the 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.

CJC 120—Introduction to Criminal Justice 5 0 0 5
This is a general course designed to provide students with an overview of the theoretical causation of crime and delinquency. Criminal behavior and societies reaction to it will be discussed.

CJC 121—Criminology 5 0 0 5
This is a general course designed to provide students with an overview of the theoretical causation of crime and delinquency. Criminal behavior and societies reaction to it will be discussed.

CJC 122—Substance Abuse 3 0 0 3
This course examines the development and history of substance abuse in the United States. Emphasis is placed upon identifying the characteristics of various drugs and drug abusers, contemporary health and social problems resulting from drug abuse, and the implications of substance abuse for the criminal justice community.

CJC 123—Juvenile Delinquency 5 0 0 5
This course examines delinquency as an individual and a social problem. The theories of delinquency causation, the involvement of law enforcement personnel in the juvenile courts, current court procedures and policies pertaining to the handling of juveniles. The means of improving the relationship between the law enforcement officer and the juvenile offender.

CJC 124—Criminal Law 5 0 0 5
This course includes a history of the development and philosophy of criminal law to include theoretical and practical application. Major crimes, as defined by the North Carolina General Statutes, will be examined. Prerequisite: CJC 121.

CJC 125—Constitutional Law 5 0 0 5
This course will provide an examination of the United States Constitution and its importance to American jurisprudence. Legal decisions pertinent to contemporary law enforcement, courts, and correctional agencies will be studied. Included will be issues concerning the concepts of federalism, the right to privacy, and the protection of individual and civil rights.

CJC 126—Community Relations and Ethics 5 0 0 5
This course examines ethics as applicable to the criminal justice practitioner. Factors relating to effective community relations, law, psychological and social factors, minorities, social change, planning and community relations. General survey of municipal public relations and their effect on government process.

CJC 190—Criminal Investigations I 3 0 0 3
This course introduces the student to fundamentals of investigation, crime scene search, recording, collection and preservation of evidence. Sources of information, interview and interrogation, case preparation, and court presentation will be discussed.

CJC 191—Criminal Investigations II 3 0 0 3
A continuation of Criminal Investigations I with emphasis on specific offenses such as homicide, burglary, robbery, larceny, narcotics, arson, and sex crimes. Prerequisite: CJC 190.

CJC 192—Introduction to Criminalistics 2 2 0 3
Relationships of forensic science to criminal investigation and development of new laboratory techniques. Proper methods of processing the crime scene for physical evidence and the subsequent collection, presentation, and identification of evidence from the crime scene through introduction into court.

CJC 193—Correctional Law 3 0 0 3
Consideration of major legal issues pertaining to corrections, including sentencing, probation, restitution, prisons, parole, and restoration of rights. Emphasis is given to legal issues typically confronted by correctional administrators, probation/parole, and prison personnel.

CJC 231—Introduction to Law Enforcement 5 0 0 5
The principles of organization and administration of law enforcement, recruitment, selection, training, discipline and promotion; the functional division of the modern police department; and the future professionalism of police services and patrol operations. Prerequisite: CJC 120.

CJC 232—Crisis Intervention and Management 5 0 0 5
This course introduces the student to theories and practices for the intervention, defusing, mediation, and referral of persons who are experiencing emotional, psychological, and relationship problems. Substance abuse and social individual crisis situations are discussed, and the student is presented with methods and techniques for handling crisis situations. This is accomplished through lecture, demonstration, and practical exercises.

CJC 233—Introduction to Corrections 5 0 0 5
This course examines a historical analysis of correctional institutions and classifications. The present efforts to change offender behavior. Today's use of community-based corrections, institutional classification strategies, pre-release and temporary release programs. The innovative use of probation and parole, and community residential programs.

CJC 234—Criminal Justice Organization and Supervision 5 0 0 5
This course is designed to prepare the new supervisor to effectively carry out his law enforcement responsibilities in areas such as management style, leadership, operations, personnel matter, and community relations. Prerequisite: Permission of instructor.

CJC 235—Counseling 5 0 0 5
The study of counseling from a criminal justice perspective. An examination of specific strategies and techniques designed to facilitate changed behavior. Emphasis on self-awareness and skills building.

CJC 236—Security, Protection, and Loss Control 5 0 0 5
This course introduces the student to the historical, philosophical, and legal bases of security, as well as to the fundamental principles of loss prevention to include all aspects of retail security protection. Internal safeguards including employee activities are also covered. The student will be prepared to analyze and comprehend special problems and practices of the security profession. Topics include preparation of a security profession. Topics include preparation of a security survey of offices, schools, airports, etc; identification of problem areas and recommended procedures for safeguarding various facilities, preparation of procedures for security of transportation and cargo facilities.

CJC 237—Seminar in Criminal Justice 3 0 0 3
This course offers eighth quarter criminal justice students an opportunity to examine relevant and criminal issues facing out society. A seminar format is utilized to encourage the critical analysis of information. Prerequisites: CJC 120 through CJC 231 inclusive.

CJC 238—Correctional Issues 4 0 4
A study of current, future, and controversial theories and practices in corrections. A critical look at punishment vs. rehabilitation along with philosophical concepts of incar-

ceration. Alternatives to incarceration as well as post-incarceration programs and recidivism rates.

CJC 239—Courts and Judicial Process 5 0 5
This course will present a description of the court structure, organization, and function on the state and federal levels. The judicial process is followed from arrest through disposition. Attention will be given to the topics of contemporary reform, court administration, procedural and substantive due process, administrative, civil, and tort law.

CJC 290-293—Work Experience: Internship or Free Elective 0 10 0 1 (maximum of 3 hours credit)
This course offers eighth quarter criminal justice students an opportunity to experience the workplace of a local criminal justice agency and integrate concepts discussed in class into real-life situations. Students will be supervised by the Criminal Justice Department Chairman and agency staff. Students will complete a minimum of 10 contact hours per week. (10 clinical hours) Prerequisite: Consent of Criminal Justice Department Chair.

COE 101-106—Work Experience I-VI (each up to 0-20-2)
Through the Cooperative Education Program the student works on a part-time basis in a position closely related to his or her program of study and for an employer selected and/or approved by the Colleges. In addition to on-the-job supervision by the employer, the student is supervised periodically by a Co-op coordinator from the institution. Prerequisite: One quarter as a full-time student at Cleveland Community College and full admission to the Co-op Program.

COSMETOLOGY

COS 1001—Scientific Study I 7 15 12
Introduction to cosmetology basics, bacteriology, sanitation and their importance; shampoos, conditioner and proper draping of patrons; anatomy and physiology and their importance.

COS 1002—Scientific Study II 7 0 7
Basic cosmetology chemistry and history of hair shaping, hairstyling, perming, relaxing, thermal curling and hair color; chemistry of make-up.

COS 1003—Scientific Study III 7 0 7
Introduction to advanced cosmetology, theory of massage; electricity and light therapy; high frequency and methods of application; theory of perming; relaxing and hair coloring and lightening; the study of the hair and disorders of the scalp.

COS 1004—Scientific Study IV 7 0 7
Introduction to business and North Carolina law as applied to cosmetology; the study of manicuring, nail diseases and disorders; in-depth study of the skin and its disorders.

COS 1011—Clinical Application I 0 18 6
Proper draping, shampooing, rinsing and scalp examination on models; proper sanitation procedures and mannequin practice; the application of cosmetics.

COS 1022—Clinical Application II 0 33 11
Hair shaping and thinning; hairstyling on mannequins; proper selection for perms; hair cuts; marcelling; color; practice in perm wrapping and thermal curling.

COS 1033—Clinical Application III 0 33 11
Massage application and procedures; hair removal; ear piercing; light therapy and electricity applications; color and perming application and chemical relaxing procedures on live models or mannequins.

COS 1044—Clinical Application IV 0 33 11
Practical application of business and North Carolina law pertaining to the operation of cosmetic art shops; manicuring; pedicuring; artificial nails and hand and arm massage on models; the application of proper sanitation procedures.

DESIGN

DES 118—Publications Design and Production I 2 2 3
A study of techniques and problems in the design and production of publications, including pamphlets, brochures, catalogues, and college yearbook.

DES 119—Publications Design and Production II 2 2 3
A continuation of DES 118.

DES 120—Publications Design and Production III 2 2 3
A continuation of DES 119.

DES 121—Publications Design and Production IV 2 2 3
A continuation of DES 120.

DRAFTING

DFT 110—Introduction to Drafting 4 0 4
In this course, the student will learn to organize for presentation on prints mechanical, architectural, and geographic information. This information will be presented through use of orthographics, isometrics, sectional drawings, detail drawings, dimensioning, notes and lettering. The course

emphasis will be on the general presentation of this information as applied to different areas of drafting and drawing. The student will develop these skills through actual practice with the most common drawing tools.

DFT 111—Computer Aided Drafting 3 2 4
An introduction to computer aided drafting, including prints, mechanical, architectural, and geographic information; orthographics; isometrics; sectional drawings; detailed drawings; dimensioning; notes; lettering; and general presentation.

DFT 112—Computer Aided Drafting for Electronics 3 2 4
An introduction to computer aided drafting for electronics, including applications to the electronics industry; schematics; layouts; circuits works.

DRAMA

DRA 105—Theatrical Performance 2 2 3
Designed to give the student experience in an appreciation of a variety of behind-the-scenes and on-stage procedures that are requisite to a theatrical production.

DRA 106—Dramatic Production 2 2 3
Designed to give the student further experience in theatrical productions with emphasis placed on technical theatre.

DRA 108—Theatre Appreciation 5 0 5
Reading of significant works in the history of tragedy and comedy, with emphasis on staging ideas and methods of presentation.

DRA 200—Creative Dramatics 1 0 1
A course designed for teachers and other youth leaders who wish to use creative dramatics as a teaching tool. Different types of creative communication appropriate for children and adolescents will be studied. Major topics are Creative Theatre, Formal Theatre, and Oral Interpretation. Projects will include selected readings, improvisations, and skits.

DRA 208—Children's Theatre 3 0 3
This course introduces the student to the different types of theatre appropriate for children. These types include, but are not limited to, Reader's Theatre, Mime, Creative Dramatics, Story Theatre, and Presentation Theatre. A course requirement will be the actual selection, rehearsal and presentation of a mini production for children by adults and/or a production by children.

ECONOMICS

ECO 102—Economics I 5 0 5
The fundamental principles of economics including the institutions and practice by which people gain a livelihood. Included is a study of the laws of supply and demand, exchange, distribution and consumption both in relation to the individual enterprises and to society at large.

ECO 104—Economics II 5 0 5
Greater depth in principles of economics, including a penetration into the composition and pricing of national output, distribution of income, international trade of finance and economic problems.

ECO 201—Labor Economics 4 0 4
Emphasis is placed on the history of the labor movements in the United States, the development of methods and strategies by labor organizations and by management, the shift in the means of public control, and the factors on income and economic security.

EDUCATION

EDU 100—Writing Across the Curriculum 1 0 1
The study of writing in the subject matter areas, a survey of writing across the curriculum programs, including their content, design, teaching strategies and evaluation.

EDU 101—Writing and Learning Theory 1 0 1
An overview of learning theory as it applies to writing to learn, with specific disciplines.

EDU 103—Social and Psychological Development of the Child: A Contemporary Study 1 0 1
A study of child development for preschool and kindergarten teachers, family care providers, child care center staff, and parents. Includes practical strategies to improve the quality of life for children between birth and age 6 to ensure emotional, physical, and intellectual well-being. Provides valuable child development background for teachers of the older elementary-school child.

EDU 105—Issues in Education 3 0 3
Exploration of major topics in education for teachers and students preparing to become teachers.

EDU 110—Seminar Practicum: Preschool environment 1-0-10-2
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. Prerequisite: EDU 123 and EDU 124.

EDU 121—Effective Teaching Strategies 3 0 3
Emphasis is placed on learning effective teaching techniques to enhance expertise as an instructor. Practical examples will be studied with use of videotaping to evaluate organization, techniques, and behavior.

EDU 122—Survey of Child Development 3 0 3
A survey course in the physical, cognitive, and psychosocial development of the child from preschool through adolescence. Focuses on children in natural settings and the practical applications of child care.

EDU 123—Introduction to Early Childhood Education: Child Care Credential I 3 0 3
This course provides the first half of instruction necessary to qualify for the North Carolina Child Care Credential. Areas of study include introduction to the child care profession, child growth and development, and getting to know the whole child. Prerequisite: None.

EDU 124—Introduction to Early Childhood Education: Child Care Credential II 3 0 0 3
This course provides the second half of instruction necessary to qualify for the North Carolina Child Care Credential. Areas of study include developmentally appropriate practices, positive guidance, and providing a safe and healthy environment. Prerequisite: EDU 123.

EDU 125—Creative Activities in Early Childhood 5 0 0 5
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. Prerequisite: None.

EDU 126—Child Health, Safety, and Nutrition 3 0 0 3
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. Prerequisite: None.

EDU 134—Family Care Credential II 3 0 0 3
This course provides the second half of the instruction necessary to qualify for the North Carolina Child Care Credential, with an emphasis on the special needs and interest of family child care providers. Areas of study include developmentally appropriate practices: positive guidance; health, safety, and nutrition; and business and professionalism for the family child care providers. This course is an alternative to EDU 124 Child Care Credential II and provides specific instruction related to the family care arrangement.

EDU 151—Creative Art for Children 2 2 3
A study of art for the elementary grades with concentration on theory, media, methods and creative art activities appropriate for the young child.

EDU 201—Teaching for Thinking 3 0 3
A multidisciplinary course designed to help teachers help their students learn to think for themselves. Techniques and strategies for creating situations in which students must organize, analyze, synthesize, evaluate, guess, imagine, classify, and interpret are demonstrated.

EDU 203—Special Topics in Education 5 0 5
The study of selected topics in education focusing on trends, issues, practices, and problems.

EDU 204—Reading in the Content Area 5-0-5
This course which provides instruction in the teaching of reading in the content area (such as history, science, social studies) is designed for classroom teachers who teach at the junior high, senior high, and adult level. Basic theories and their practical application to teaching are emphasized. Topics include formal testing, textbook selection, making effective reading assignments, teaching students how to study, and designing strategies for presenting textbook content to students.

EDU 211—Infant/Toddler Development Activities 3 0 0 3
This course emphasizes the skills needed to effectively implement group care for infant/toddlers. Topics include principles of child development, and developmentally appropriate practices. Prerequisite: PSY 208 or consent of advisor.

EDU 215—Classroom Management 3 0 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. Prerequisite: None.

EDU 216—Communication Activities in Early Childhood 5 0 0 5
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. Prerequisite: None.

EDU 217—Exploration Activities in Early Childhood 5 0 0 5
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. Prerequisite: None.

EDU 220—Seminar Practicum: Special Needs Environment 1 0 10 2
This supervised practicum experience gives the student an opportunity to apply age-appropriate principles of the 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. Prerequisite: EDU 225 or consent of advisor.

EDU 223—Working with Child's Family and Community 3 0 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. Prerequisite: None.

EDU 225—Working with Children with Special Needs 3 0 0 3
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. Prerequisite: EDU 123 and EDU 124 or PSY 208 or consent of advisor.

EDU 230—Internship 2 0 20 4
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. This seminar gives the student an opportunity to evaluate practical experiences and to discuss curriculum components. Prerequisite: EDU 110 or consent of advisor.

EDU 231—Early Childhood Curriculum Planning 5 0 0 5
This course reviews major elements of early childhood curriculum planning. Topics include assessment of children and curriculum, instructional planning, scheduling, and environment design. Prerequisite: Consent of advisor.

EDU 232—Child Care Administration 3 0 0 3
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 North Carolina Child Day Care Section's requirements of child day care administrators. Prerequisite: None.

EDU 233—Children's Literature Survey 3 0 3
This course is a critical study of children's books, both classical and current, appropriate for various ages. Emphasis will be placed on sharing books with children.

ELECTRICITY

ELC 115—Rotary Machines and Controls 3 2 4
Concepts of motor construction, power requirements, mechanical aspects of electric motors, including DC and stepping motors, and single and multiphase AC motors. The course includes wiring, testing, starting, reversing, and speed control of various types of motors. Motor control circuits include electromechanical and solid-state devices and times or sequencing switches. Information also aids in proper choice of motor types for specific applications.

ELC 1102—Basic Electricity for Air Conditioning, Heating and Refrigeration 2 6 4
The use and care of test instruments and equipment used in servicing electrical apparatus for air conditioning and refrigeration installations. Electrical principles and procedures for trouble-shooting of the various electrical devices used in air conditioning, heating and refrigeration equipment. Included will be transformers, various types of motors and starting devices, switches, electrical heating devices and wiring.

ELC 1111—Basic Electrical Circuits, Machines, and Transformers I 4 3 5
A student will gain competency in construction and using series and parallel circuits. Single and polyphase rotating machinery, transformers and transformer connections will also be studied. A large portion of lab time will be used to build competency in understanding and practical application of these circuits and machines.

ELC 1113—Alternate Current and Direct Current Machines and Controls 2 6 4
This course is designed to build competency in the area of magnetic motor controls. Basic start-stop-job circuits and their many variations as well as limiting devices in these circuits will be studied in detail.

Large portions of lab time will be spent in developing competency in the use of the circuits as they apply to industry.

ELC 1114—National Electrical Code 4 0 4
A study of the National Electrical Code in preparation for the licensing examination. Instruction will include the latest code revisions, safety measures and standard practices in the wiring of single and multifamily dwellings, commercial establishments and industrial locations.

ELC 1124—Residential Wiring I 2 6 4
Provides instruction and application in the fundamentals of blueprint reading, planning, layout and installation of wiring in residential applications such as: services, switchboards, lighting, fusing, wire sizes, branch circuits, conduits, National Electrical Codes regulators in actual building mock-ups.

ELC 1125—Commercial and Industrial Wiring I 2 6 4
Layout, planning and installation of wiring systems in commercials and industrial complexes, with emphasis upon blueprint reading and symbols, the related National Electrical Codes, and the application of the fundamentals to practice experience in wiring conduit preparation and installation of simple systems.

ELC 1311—Basic Electrical Circuits, Machines, and Transformers II 4 3 5
A continuation of ELC 1111.

ELC 1313—AC/DC Machines and Controls II 2 6 4
A continuation of ELC 1113.

ELC 1324—Residential Wiring II 2 6 4
A continuation of ELC 1113.

ELC 1325—Commercial and Industrial Wiring II 2 6 4
A continuation of EIC 1125.

ELECTRONICS

ELN 100—Introduction to Electronics 4 0 4
A survey of electronics with particular attention to what electronics consist of. A non-mathematical approach will be utilized in this course. Students also learn the magnitude of the Electronics Engineering Technology degree requirements.

ELN 103—Circuit Layout and Design 3 2 4
The fundamentals of drafting are presented with an emphasis on applications in the electronics field. Basic skills and techniques are included such as the use of drafting instruments, types of drawings, construction of drawings both with instruments and freehand, lettering and dimensioning, and how to read prints. In addition to basic skills, specialized experience will be included which directly relates to the electronics industry, such as types of drawings common to electronics, special symbols used, schematic diagrams, and layout diagrams with an emphasis on printed circuit work.

ELN 112—Electronics Fundamentals I 3 2 4
Presents fundamental principles of Direct Current electricity including: units of measurement, OHM's law, Kirchoff's laws, simple parallel, and series parallel resistive circuits, R-C & L-R circuits, power resistance, current capacitance, magnetism, and basic circuit components. Lab work will cover the proper use and care of hand tools, and measuring equipment such as the VOM and VTM. Interpretation of schematic diagrams and component identification, and verification of basic electrical laws will be included.

ELN 113—Electronics Fundamentals II 3 2 4
Presents fundamental principles of alternating current electricity including: resistive, capacitive, and inductive circuits, impedance, phase relationships, resonant and nonresonant series and parallel LRC circuits, inductive coupling, and air and iron care transformers concepts. Lab work will include use of the DVM and oscilloscope, and verification of basic electrical laws. Prerequisites: ELN 112, MAT 101.

ELN 114—Active Devices 3 2 4
Covers basics of vacuum tubes and solid state devices including: transistors, diodes, photocells, and thermistors. Lab experiments will verify the function of these components in circuits. Prerequisites: ELN 113, MAT 102.

ELN 121—Electrical Circuits I 3 2 4
Covers the building blocks of electronics such as: power supplies, amplifiers, oscillators, feedback circuits, and tuned circuits. Lab work will give experience in building and troubleshooting these circuits. Prerequisite: ELN 113.

ELN 122—Electronic Circuits II 3 2 4
Allows the student to study the relationships of the circuits covered in ELN 121. Discussion will center around the networks

formed by inter-connection of these circuits. Prerequisite: ELN 121.

ELN 123—Introduction to Microprocessors 3 2 4
A study of the computer in its smallest physical form. The student will be given practice in BASIC programming and the utilization of the micro-processor in manufacturing situations.

ELN 208—Industrial Electronics 3 2 4
Electronics as applied in industrial control and production systems: study includes types of components and circuits used to control processes and equipment such as DC motors, drives, switching, and control processes and equipment and its installation and safety considerations. Includes the study of circuits used in sensing and control as well as monitoring manufacturing processes.

ELN 218—Logic Fundamentals 3 2 4
Covers basic logic circuit design and application including: OR gates, AND gates, NOR gates, NAND gates, binary numbering systems and Boolean Algebra.

ELN 219—Pulse and Logic Circuits 3 2 4
This course continues the study of topics covered in ELN 218 and introduces bistable and mono-stable multivibrators, integrators, Schmit trigger circuits, and transistor switches. Prerequisite: ELN 218.

ELN 235—Industrial Instrumentation 3 2 4
Principals of measurement of electrical values and other parameters for use in the automatic control of machinery and equipment are covered. Electronic circuits necessary for the processing of information and display are investigated. Several types of transducers for the detection and conversion of various parameters are studied and their interfacing with indicators and other systems are discussed.

ELN 242—Electronic Systems I 3 2 4
Study of Motorola 6800 series machine language instruction set. This course will cover most of the 72 types of instruction that make up the 6800's instruction set. An assembler will be used to convert programs from assembly language to machine code. Prerequisite: ELN 123.

ELN 243—Electronic Systems II 3 2 4
Covers microprocessor applications and interfacing. Discussion of Basic Input/Outputs, serial and parallel data communication, and Analog to Digital and Digital to Analog Conversions. Prerequisite: ELN 242.

ELN 246—Electronic Systems Project 3 2 4
A class emphasizing independent research and design work by the student. The student will select a project in consultation with the instructor; perform the required research; compile data; formulate a theoretical model; and construct, test, and evaluate a working model of the selected project.

ELN 249—Electronic Technique and Problem Solving 3 2 4
ELN 249 is primarily a "hands-on" course to give the student the opportunity to gain proficiency with tools of the trade by project design, layout, drilling, cutting, fastening and soldering as they carry out assignments from the instructor. The student also gains knowledge of procedures used in problem solving by application of previously learned material as well as troubleshooting procedures for many systems. The course objective is to prepare the student for work-bench applications of electronics and the use of various hand and power tools.

ELN 251—Programmable Logic Controller Programming and Application 3 2 4
This course introduces the student to Programmable Logic Controllers (PLC's) and their application in industry. Topics include selection and installation, boolean programming, ladder programming, I/O characteristics, latch circuits, master control relays, timers and counters, sequencer programming, and troubleshooting. Laboratory exercises include PIC logic and I/O configurations, programming techniques, program de-bugging, and system troubleshooting. Prerequisite: ELC 1113 and/or ELN 115. For Air Cond., Heating, and Refrigeration the Prerequisite is ELC 1102.

ELN 252—Intermediate Programmable Controller Programming and Application 3 2 4
This course deals with some of the more advanced features of Programmable Logic Controllers (PLC's). Topics include sensors, analog I/O, multiple PLC systems, advanced sequencer application, shift register applications, advanced programming techniques, basic math functions, data manipulation, and basic peripheral applications. The student will also learn about bus configurations, memory organization, and register functions. Laboratory exercises will include sensors, multiple PIC systems, and associated peripheral devices. Prerequisites: ELC 1113 or ELN 115, and ELN 251. (Equivalent industrial experience may be substituted with instructor/advisor approval.)

ELN 1103—Solid State Devices 4 0 4
Basic principals of solid state devices as found in industry. The course focuses on understanding the different symbols and a fundamental understanding of solid state device operations. Prerequisite: ELC 1111 or experience.

ENGLISH

ENG 99—Basic English Skills 4 0 4
A review of basic English skills which will prepare students for competencies needed in English 130. Course content includes a study of major structural errors, grammar, mechanics, punctuation, spelling and study skills. This is a developmental course which will not count for credit toward any degree/ diploma or certificate program.

ENG 103—Report Writing 3 0 3
A study of standard English and the organization and techniques of modern report writing. Exercises in developing typical reports using writing techniques and graphic devices. Special emphasis on practical application of occupational writing demands.

ENG 109—Public Speaking 5 0 5
A study of basic concepts and principles of oral communications to enable the student to communicate with others. Emphasis is placed on the speaker's attitude, improved diction, voice, and presentation. Students will use specific skills of content selection and presentation, organization, and delivery to prepare and present effective speeches designed to achieve specific goals.

ENG 111—Study Skills and Learning 3 0 3
A study of skills for learning, including note taking, outlining, review, time management, and other important strategies for learning.

ENG 130—English Grammar and Composition 3 0 3
A study of English grammar, usage, punctuation, mechanics, and basic library skills. Special emphasis on the writing process and the development of the paragraph and the essay. Includes a library orientation program for new users, with special attention to individual bibliographic assistance and the use of bibliographic and other library materials.

ENG 131—Composition, and Introduction to Literature 3 0 3
An analytical approach to poetry, short story, and drama, with emphasis on construction of interpretive essays on literature. Prerequisite: ENG 130.

ENG 132—Composition, Research, and Documentation 3 0 3
The study and practice of research in the college library, including indexes, and bibliographic resources. Emphasis on the development of the research paper, including note taking, methods of documentation, paraphrasing, writing, revision, and editing. Prerequisite: ENG 130.

ENG 133—Advanced Composition, Research and Documentation 3 0 3
Advanced study of research methods, documentation, and use of the college library. Required research papers include topics on selected works of literature and non-literary topics. Prerequisites: ENG 130, 131, 132.

ENG 200—Storytelling 1 0 1
A course designed to motivate students to collect and record stories and legends from both written and oral sources. In addition, students will learn effective storytelling techniques through model presentations and from sharing their own work. Topics of study include sources for stories, types of stories, and effective storytelling techniques.

ENG 203—Creative Writing 3 0 3
Production of imaginative work in fiction, poetry, and drama, with discussion of creative methods and professional practice.

ENG 205—Major American Writers 3 0 3
Studies of various American literary figures and their works, with attention to biography and cultural influences.

ENG 208—Masterpieces of World Literature 5 0 5
The study of representative world works from the classical period through the modern period. Representative writers include Sophocles, Dante, Tolstoy, Chekhov, Sartre, and Camus.

ENG 209—Creative Writing Workshop 3 0 3
Continuation of ENG 203 is a didactic course which sometimes includes campus publications, personal and/or creative writing in various genres.

ENG 210—Effective Communication 3 0 3
A course designed to help participants understand their own communication problems, overcome or prevent communication breakdowns, and improve their relationships with others through more effective listening and speaking skills.

ENG 213—American Literature Survey I 5 0 5
Readings from the foundations of the republic through Transcendentalism into

Realism of the late nineteenth century, emphasizing influential lines of thought.

ENG 214—American Literature Survey II 5 0 5
Review of distinctive positions, notably romanticism and neoclassicism, from the beginning of Naturalism in the late nineteenth century to the present.

ENG 215—Southern American Writers 5 0 5
Exploration of trends which mark the regional identity through writings describing the antebellum South as well as those on current characteristics.

ENG 216—Walden by Henry David Thoreau 1 0 1
A course designed to familiarize students with Thoreau's Walden. This book will be read and discussed in a seminar setting. Thoreau's life will also be discussed.

ENG 217—The Poetry of Robert Frost 1 0 1
A course designed to familiarize students with the poetry of Robert Frost. Appropriate selections will be read and discussed in a seminar setting. Frost's life will also be discussed.

ENG 223—English Literature Survey I 5 0 5
An historical review of major British writings from the Old English period through the seventeenth century, including consideration of the intellectual currents which fostered the literature.

ENG 224—English Literature Survey II 5 0 5
Reading of significant trends and works in British literature from 1800 to the present, with emphasis on Romanticism.

ENG 226—Literature in Southern Culture (Travel) 5 0 5
Discussion of Southern literary works with emphasis on the historical and sociological environment in where they were written.

ENG 227—Literature in American Society (Travel) 3 0 3
Discussion of American literary works with emphasis on the historical and sociological environment. May be substituted for ENG 205.

ENG 1102—Communication Skills 4 0 4
Topics in oral and written communication, including the communication process, listening, oral presentations, non-verbal communication, participation in meetings, writing the letter of application and accompanying resume, and special problems in English grammar and usage. Includes a library orientation program for new users, with special attention to individual assistance for finding materials and using bibliographic and other library materials.

ESL 197—English as a Second Language: Level I 4 0 4
Introduction to the English language for non-native speakers of English with limited speaking and writing proficiency or for some linguistically impaired students. Includes basic vocabulary, phonology, sentence structure, verb tenses; basic spelling patterns; sentence writing and paragraphs. Student must have permission to enroll by instructor, department head, or appropriate division dean.

ESL 198—English as a Second Language: Level II 4 0 4
Continuation of ESL 197 to include vocabulary and related study of prefixes, roots, and suffixes, a detailed study of regular and irregular English verbs; college writing, including written responses to discussion questions and essays. Student must have permission to enroll by instructor, department head, or appropriate divisional dean.

ESL 199—English as a Second Language: Level III 4 0 4
Continuation of ESL 198 emphasizing speaking and writing in the college classroom and the local community; designed to provide for individual language needs of student including speech and writing. Student must have permission to enroll by the instructor, department head, or the appropriate divisional dean.

ENVIRONMENTAL

ENV 206—Environmental Law 4 0 4
A study of local, state, and federal laws and acts concerning environmental quality standards and the use of resources, legal procedure for enforcing laws, and problems concerning enforcement. Included will be environmental standards dealing with polluting sources such as industry, agriculture, municipalities, and individuals.

FOOD SERVICE

FSO 1102—Food Preparation and Baking I 2 6 4
A study of the scientific principles of baking, food preparation, and cooking procedures; included will be preparation of salads, stocks, sauces, breads, desserts, and beverages.

FSO 1103—Sanitation-Safety Equipment 4 0 4
A study of sanitation standards and safety precautions as related to food storage, preparation, and service. The student will also learn the design, methods and care of kitchen equipment.

FSO 1105—Purchasing 2 0 2
To indicate the functions and administrative operations of the food purchaser's department. Methods and procedures for purchasing foods, standards, grading, and inspecting those items bought. Also, the student will learn how items are to be received, stored, and issued.

FSO 1108—Personnel Management 2 0 2
A study of the job responsibilities and duties of the food service worker; his relationship to his associates, with emphasis on understanding human behavior, labor policies and legislation, and the importance of self-development in relation to professional responsibility.

FSO 1109—Production Management 2 0 2
Use of standardized recipes and portion control, work sheets, score sheets for judging food products, plan of work to improve work methods and further emphasis on motion economy.

FSO 1110—Nutrition and Menu Planning 4 0 4
This course will demonstrate the importance of menu planning in relation to market equipment - local and other factors to a successful food operation.

FSO 1112—Food Preparation and Baking III 2 6 4
This course will develop artistic skills related to cooking and baking. The course will introduce more detailed assignments in the practical shop work to achieve increased skills. The student will learn the principles and preparation of egg cookery. All breakfast preparation will be taught.

FSO 1116—Bakery V 2 6 4
A continuation of FSO 1312—Food Preparation and Baking IV.

FSO 1122—Food Preparation V 2 6 4
A continuation of FSO 1312—Food Preparation and Baking IV.

FSO 1302—Food Preparation and Baking II 2 6 4
This course is primarily designed to teach the students the different cuts of meats and their respective cooking methods. Fish, seafood, and poultry will also be stressed. The student will also be required to expand his knowledge in breads, cakes, pies, and other desserts.

FSO 1312—Food Preparation and Baking IV 2 6 4
A continuation of FSO 1112—Food Preparation and Baking III.

FSO 1316—Baking VI 2 6 4
A continuation of FSO 1116—Baking V.

FSO 1322—Food Preparation VI 2 6 4
A continuation of FSO 1122—Food Preparation V.

GEOGRAPHY

GEO 101—Introduction to Geography 5 0 5
The study of the contemporary world, divided into regions (North America, Central and South America, the Middle East, Europe, Asia); includes the study of population problems; technology and cultural change; rural and urban development; resource exploitation, international trade, political identity, and international conflict.

HISTORY

HIS 104—World Civilization I 5 0 5
A survey of the cultural beginning of Eastern and Western civilizations, dealing with migrations, cultural diffusion, and the development of governmental and ethical structures through the Industrial Revolution and Napoleonic Era.

HIS 105—World Civilization II 5 0 5
A continuation of World Civilization I from the rise of nationalism, colonization, both World Wars, the emergence from the Cold War, and special emphasis on contemporary world changes.

HIS 106—American History I 5 0 5
A comprehensive survey of American history from colonial times through Reconstruction. It is a study of the political and social history of a pluralistic society with emphasis upon manners, mores, literary and artistic movements, religions and philosophical schools of thought, and the general outlook of the American people on particular subjects.

HIS 107—American History II 5 0 5
A continuation of American History I beginning with the transformation of the West and South, the Industrial Revolution, the Progressive Era, both World Wars, and continuing to the present day. Special emphasis will be put on contemporary America.

HIS 113—Politics and Society in Early America (Travel) 5 0 5
This course is designed to introduce the student to American history. The first part of the course examines colonial America, while the latter part of the course will examine Jacksonian America. The course will end with an analysis of the Civil War and Reconstruction. May be substituted for HIS 106.

HIS 114—History in Southern Culture (Travel) 5 0 5
Experience the complexity and richness of southern culture. Classroom examination of a variety of historical aspects concerning southern culture is complemented with several trips to locations dealing with southern culture.

HUMANITIES

HUM 101—Dimensions of Human Experience 3 0 3
An interdisciplinary course in the humanities emphasizing some of the major dimensions of human experience, as reflected in philosophy, art, literature, music, history, religion, and psychology.

HYDRAULICS

HYD 1105—Hydraulic Fundamentals 4 0 4
An introduction to basic hydraulic principles including Pascal's Principles of static fluids. Berboulli's theorem of fluids in motion, viscosity, laminar and turbulent flow, Reynolds' number, dynamic similitude, velocity gradient, etc.

INDUSTRIAL MANAGEMENT

ISC 102—Management Functions 4 0 4
This course, for students with no supervisory experience, teaches the basic supervisory responsibilities of staffing, planning, organizing, measurement and control systems, delegation, accounting controls, and factors affecting organizational climate. Students with meaningful supervisory experience may be allowed to exempt this course.

ISC 103—Productivity Fundamentals 4 0 4
This course teaches the basic necessary "tools" for work simplification and manufacturing efficiency. Time study, work sampling, plant and job layout, job analysis, will be taught as well as principles of job enlargement, automation, and work flow. The student will also learn how to combine analytical problem solving with effective employee involvement and motivation principles to achieve productivity improvement while sustaining high employee morale.

ISC 105—Industrial Human Resources Management 4 0 4
Students learn not only the various functions and responsibilities of a Human Resources Department but also the effective interaction with the line organization. Issues studied include hiring policy and practice, wage and salary administration, labor relations (union and non-union organizations), training and management development, employee benefits systems and strategies, and legal and regulatory issues such as race, sex, and age discrimination and sexual harassment.

ISC 140—Industrial Safety and Health 4 0 4
Students are urged to have extremely high standards regarding workplace injuries and are taught a unique and effective systems approach to safety combining analytical and motivational principles. The course develops a proactive attitude to achieving low injury rates and focuses on the one primary cause of all workplace injuries. Regulatory requirements of OSHA and EPA are also covered, as well as an overview of industrial hygiene issues.

ISC 203—Industrial Behavioral Science 4 0 4
In lieu of typical industrial psychology, this course explores the highly valuable work of leading sociologists and behavioral scientists as a base for today's most successful and progressive organization leadership practices. Particular attention is given the studies and conclusions of McGregor, Maslow, Herzburg, Likert, Argyris and Blake. The course emphasizes economic potential and how to achieve it using the humanistic principle espoused by behavioral science theory.

ISC 204—Quality Focus 4 0 4
A course in today's newest and most progressive thinking concerning both product and organizational performance quality issues. This course introduces the concepts of "World Class Manufacturing" and "Commitment to Excellence." Explores the writings of Deming, Juran, Crosby, Shewhart, and others on the issue of quality and Total Quality Management (TQM). Emphasis on the practical application of integrating quality onto the work floor and sustaining high quality performance over time. Emphasis is placed on the process of continuing improvement and creating an environment which welcomes change.

ISC 205—Managerial Communications 4 0 4
A unique course in effective communications in organizations. Stresses "communicating for results" and involves high level of student participation in developing and giving oral presentations for both management and operating employees. Teaches effective design and use of graphics. Teaches principles of effective feedback. Will also stress conference leadership and one-on-one communication.

ISC 206—Leadership-Principles and Values 4 0 4
This course is built on the belief that one's personal value system, honesty, and integrity are critical determinants of effec-

tive leadership. Drawing mostly from Stephen Covey's writings in The Habits of Highly Effective People and Principle Centered Leadership, students learn how ethics and principles translate into results in life and work. A highly interactive course where students share and learn from one another in a highly proactive environment.

ISC 207—Advanced Leadership 4 0 4
This course will draw on a variety of sources to present current thinking on the issues of conceiving and articulating a vision, using logic and creativity in decision making, servant leadership, leadership ethics, building trust, empowering others, resolving conflict, leader as changemaker, leading with goals, getting control of time, and situational leadership.

ISC 208—Leadership-Case Studies 4 0 4
This is the final course in leadership series and is devoted entirely to team problem solving using complex case studies. Teams present written and oral summaries of case analysis and receive peer evaluation and feedback. This course requires that students use principles and strategies learned in the other five core courses in the Advanced Leadership series. Prerequisites: ISC 203, 204, 205, 206, 207.

ISC 243—Free Enterprise 4 0 4
An in-depth examination of the component parts of the free market, capitalism and the complex interaction of producer, consumer and government. The fundamental principles which have contributed so vitally to the economic and industrial preeminence of the United States are employed. Some of these are relying on industry keeping government in its place, and the encouragement of productivity and ingenuity by the worker.

ISC 249—Statistical Process Control I 4 0 4
Teaches both theory and practical application of statistical analysis for process and quality parameters and the effective use of control charts with particular emphasis on operators' active participation in the SPC system. The course goes beyond SPC as a management control into its value as an operator tool to both control and improve performance in his/her area of responsibility. Also deals with in-line quality control using SPC control charts. Prerequisite: MAT 117 or equivalent.

ISC 252—Statistical Process Control II 4 0 4
The course is designed to identify a problem and a process in industry, analyze causes, collect data, analyze data, implement corrective action and monitor process control. This is achieved through learning to use the following control charts: Run Chart, XBar Chart, R Chart, S Chart, Moving Range Chart, X Bar-R Chart, P Chart, PN Chart, C Chart, U Chart, Bar Chart, Pareto Diagram, Pie Chart, Table, Histogram (Frequency Dist), Frequency Polygon, Ogive (CDF), Scatter Diagram. Prerequisite: ISC 249.

ISC 1101—General Industrial Survey 4 0 4
This course will cover a wide variety of industrial processes, from conception to final production. It includes processes in graphics, wood industries, plastic and metal industry.

JOURNALISM

JOU 116—Journalism I 3 0 3
A study of journalistic writing with special emphasis on collection, writing, and editing news stories; a study of freedom of the press and basic news legality. Practical application of newswriting through the development of the college newspaper.

JOU 117—Journalism II 3 0 3
A continuation of JOU 116.

MATHEMATICS

MAT 99—Basic Arithmetic Skills 4 0 4
A review course in the principles and manipulations of arithmetic operations. Topics of study include: whole numbers, common fractions, decimals, percent, ratio and proportion. This is a developmental course which will not count for credit toward any degree, diploma or certificate program.

MAT 101—Principles of Mathematics 4 0 4
A course emphasizing applications of mathematics and geometry. Topics of study include: a brief review of the basic operations, business applications, statistics, measurement, geometry, and integers. Prerequisite: MAT 99 or equivalent.

MAT 102—Introduction to Algebra 4 0 4
An introductory course acquainting students with the basic principles of the study and application of algebra. Topics of study include: The equation, signed numbers, monomials, polynomials, graphing and set theory. Prerequisite: MAT 101 or equivalent.

MAT 103—Intermediate Algebra 4 0 4
A course designed to advance the student with basic skills and to work with the applications of Algebra. The topics of study will include: solving equations, formulas and problem solving, scientific notation, graphing, function, linear equations, inequalities, polynomials, rational expressions and equations, quadratic equations, exponential and logarithmic functions. This course

is designed to bridge between basic Algebra and collegiate level mathematics. Prerequisite: MAT 102 or equivalent.

MAT 106—Math for Pharmacology 3 0 3
A course designed to review the basic mathematics needed for Pharmacology. The course will also include work in the various measurement systems and conversion between the systems. The course is designed for students who are planning to enter an LPN or RN program.

MAT 118—Statistics 5 0 5
An elementary course concerning the basic concepts of probability theory and the methods of statistical inference. Topics are to include: probability, descriptive statistics, sampling, normal and binomial distributions, sampling distributions. Prerequisites: MAT 103 or high school algebra.

MAT 121—College Algebra I 3 0 3
A study of the manipulation of polynomials, rational expressions, and solutions of equations, inequalities, exponents, polynomials, rational expressions, powers, roots, radicals, quadratics, and logarithmic functions. Prerequisite: High School Algebra or MAT 103.

MAT 122—College Algebra II 3 0 3
A study of the solution of equations and systems of equations through advanced algebraic techniques. Outline of study includes: functions, graphing, operations with polynomials, solution of quadratics, linear equations, inequalities, matrices, determinants and exponential and logarithmic functions. Prerequisite: MAT 121.

MAT 123—Trigonometry 3 0 3
An intermediate course in the principles and applications of trigonometric functions and algebraic manipulations of trigonometric functions. Outline of study includes: trigonometric functions, solution of triangles, radian measure, trigonometric identities and inverse trigonometric functions. Prerequisite: MAT 103 or equivalent.

MAT 206—Calculus for Business 5 0 5
A one-quarter course which is to cover both differential and integral calculus. This course will use the intuitive approach with theory applied where necessary. A major aim will be to show application of the tools of calculus. Prerequisites: MAT 121, 122, 123.

MAT 251—Math for Elementary Teachers I 5 0 5
This course is a study of logic, methods of proofs, problem solving, geometry and computers with emphasis on the concepts needed to teach elementary math. Prerequisite: MAT 103.

MAT 252—Math for Elementary Teachers II 5 0 5
This course is a study of logic, methods of proofs, problem solving, geometry and computers with emphasis on the concepts needed to teach elementary math. Prerequisite: MAT 251.

MAT 261—Calculus I 5 0 5
A course in the concepts, principles, and applications of differential calculus. Topics of study include limits, continuity, the derivative, applications of the derivative and the antiderivative. Prerequisites: MAT 121, 122, 123.

MAT 262—Calculus II 5 0 5
A study of the properties and applications of integral calculus and analytical geometry. Topics are to include Reimann Sums, definite integral, applications of the definite integral, logarithmic and exponential functions. Prerequisite: MAT 261.

MAT 263—Calculus III 5 0 5
A continuation of MAT 262 with topics of study to include: inverse trigonometry functions, techniques of integrations, indeterminate forms and proper integrals, parametric equations. Prerequisite: MAT 262.

MAT 1101—Vocational Basic Arithmetic 4 0 4
A self-paced study of arithmetic skills which may be applied in the vocational areas of study. Topics of study include: whole numbers, decimals, fractions, ratios, proportions, percent and measurement.

MAT 1102—Food Service Math 4 0 4
This course focuses on the essentials of mathematics required in the food service industry. Topics covered include arithmetic operations with whole numbers, rational numbers, decimals, and percentages. Fundamental principles of business mathematics are used in practical problems of food industry.

MAT 1103—Applied Math: Geometry 4 0 4
An exploration of the fundamental properties of plane and solid geometric figures encountered in machine shop processes and other trades.

MAT 1104—Applied Math: Trigonometry 4 0 4
Trigonometric ratios; solving problems with right triangles, using tables and interpolating; solution of oblique triangles using law of sines and law of cosines; graphs of the trigonometric functions; inverse functions, trigonometric equation. All topics are applied to practical problems.

MAT 1110—Electrical Mathematics 4 0 4
A course in algebraic and trigonometric processes involved in theoretical and applied electronics. Topics of study in-

clude: factoring roots, use of calculator, electrical equations, electrical units; fractional equations, polynomials, simultaneous equations of two unknown and trigonometric functions.

MAT 1112—Construction Estimating 4 0 4
Construction Estimating is a course designed to give a student specific knowledge in estimating the various phases of a residence or small structure. Quantity takeoff will be taught. Estimating will be a major part of the course. Competency will come with many hours of practice.

MACHINE SHOP

MEC 1101—Machine Shop Theory and Practices I 2 6 4
An introduction to the machinist trade and the potential it holds for the craftsman. Deals primarily with the identification, care and use of basic hand tools and precision measuring tools.

MEC 1102—Machine Shop Theory and Practices III 2 6 4
Advanced operations in layout tools and procedures, surface grinding, milling machines, lathe, and planer will be taught in this course. The students will also be doing projects showing proper sets and machine operation.

MEC 1103—Machine Shop Theory and Practices V 2 6 4
Advanced work on the engine lathe, turning, boring and threading machine and shaper will be dealt with in this course. The student will be introduced to basic indexing and terminology with additional processes on calculating, cutting and measuring of spur, helical, and worm gears and wheels.

MEC 1104—Machine Shop Theory and Practices VII 2 6 4
Development of class projects using previously learned procedures in planning, blueprint reading, machine operations, final assembly and inspection. Additional processes on the turret lathe, tool and cutter grinder, cylindrical and surface grinder, advanced milling machine operations, etc.

MEC 1105—Introduction to the CNC Lathe and Mill 4 0 4
The student will be oriented to the CNC lathe and mill, tooling safety and basic programming. The student will be instructed in the math and blueprint reading needed to program and operate the CNC lathe and mill.

MEC 1106—Programming the CNC Lathe 4 0 4
An advanced programming course for CNC lathe. As a continuation of MEC 1105, this course will give students advanced training in machine set-up and tooling for CNC. Students will write their own programs, choose tooling, set-up and run the lathe with their programs.

MEC 1107—Programming the CNC Mill 4 0 4
An advanced programming course for the CNC mill. As a continuation of MEC 1105, this course will give students advanced training in machine set-up and tooling for CNC. Students will write their own programs, choose tooling, set-up and run the mill with their programs.

MEC 1135—Mechanical Installation 4 0 4
Mechanical Installation is a course designed to give a student specific knowledge in the related trades involved with residential building. This course will touch on the electrical, plumbing and heating and air conditioning fields. The basics of the vocational fields will be covered.

MEC 1199—Automotive Machine Shop 2 6 4
This course is designed for the student to gain competency in machine shop processes related to the automotive industry. Such processes include the use of the brake drum lathe, valve grinding equipment, precision measure and use of the boring bar.

MEC 1301—Machine Shop Theory and Practices II 2 6 4
Layout procedure and processes of the power cut-off saw, band saw, drill press, milling machine, lathe, and off hand grinding will be introduced both in theory and practice.

MEC 1302—Machine Shop Theory and Practices IV 2 6 4
The student will be introduced to operations involved in cylindrical, cutter and internal cylindrical grinding. Projects will be selected encompassing proper setups and machine operations.

MEC 1303—Machine Shop Theory and Practices VI 2 6 4
The trainee will use precision tools and measuring instruments such as the vernier height gauges, protractors, comparators, etc. Basic exercises will be given on the turret lathe and on the tool and cutter guide.

MEC 1304—Machine Shop Theory and Practices VIII 2 6 4
Special procedures and operations, processes and equipment, observing safety procedures faithfully and establishing of good work habits and attitudes acceptable to the industry.

DISTRIBUTION AND MARKETING

MKT 101—Principles of Fashion Merchandising 4 0 4
This course is designed as an introduction to fashion terminology and the components of fashion. It explores the manner in which economic, sociological, and psychological factors influence fashion demand. A brief history of fashion is discussed along with the roles and responsibilities of designers, manufacturers, and retailers. Great emphasis is also placed on careers in fashion.

MKT 102—Modeling and Social Usage 2 2 3
This course is designed as an introduction to the techniques and skills needed to improve one's stance, posture, carriage and body control and business manners in order that each student can better meet the requirements they will face in the business world.

MKT 106—Fabric Science 4 0 4
Analyzes textile fibers and the construction of fabrics, with emphasis on the properties that affect their hand, appearance, performance and end use.

MKT 110—Bridal Consulting 3 0 3
This course is designed to introduce bridal terminology and the components of the industry. It examines the role of the bridal consultant and the proper etiquette involved in producing a wedding.

MKT 111—Menswear 3 0 3
This course concerns itself with the characteristics of the men's apparel industry. It will enable the student to acquire knowledge of figure proportions, sizing, wardrobe coordination and marketing techniques.

MKT 210—Fashion Advertising and Sales Promotion 4 0 4
This course will serve as an introduction to sales promotion activities for all marketing levels with concentration on the specialized techniques and procedures employed to implement the activities of advertising and copywriting. It will cover the types and objectives of the different sales promotion activities used to sell fashion products and the techniques that are important to implement fashion shows, special events and publicity.

MKT 212—Psychology of Dress 4 0 4
Examines the interrelationship between clothing and its cultural, social, psychological, physical, economic, and aesthetic implications.

MKT 215—New York Field Studies Seminar 1 6 3
Four days and three nights to New York City's Garment District to offer students of design, retailing and merchandising a behind-the-scenes look at fashion industry along with new perspective on fashion careers. Institutional visits to the Metropolitan Museum's Costume Collection, other museums and the Fashion Group Headquarters. Company visits to design studios, showrooms and factories of apparel-makers, fur, lingerie and accessories, fashion publications and other establishments. Offered upon sufficient enrollment demand once every two years.

MKT 218—Fashion Buying 4 0 4
Concerns itself with the scientific use of numbers in merchandising, and the figures and mathematical techniques that are employed to translate fashion into the profit-making activities of planning, pricing, and controlling quantities. Included in the course of study will be extensive dealings with the six-month plan, markdowns, markups, assortment plans and other responsibilities of the actual buyer. This course examines the responsibilities of a buyer and career opportunities. The fashion cycle is explored showing the student how all parts work together.

MKT 219—Industry Exploration 0 8 4
This course is designed to allow students the opportunity to work in a related field of interest developing skills acquired through their studies. The student will be required to keep a work journal while they complete a notebook exploring all aspects of the business.

MKT 220—Elements of Design 4 0 4
This course examines the job of the designer, how the designer, how the designer functions in the context of an apparel manufacturing firm, the mechanics of creation and production, and the principles and elements of design. Basic sketching techniques are developed for design work as well as professional presentation. This allows the student to acquire the knowledge of figure proportions.

MKT 223—Development and Psychology of Dress 4 0 4
Examines the interrelationship between clothing and its culture, social, psychological, physical, economic and aesthetic implications. A study of costumes from ancient world to modern day allows the student to research the evolution of garments.

MKT 239—Marketing 4 0 4
An overall survey of the field of marketing, with detailed emphasis on marketing, policies, functions and institutions involved in the marketing process.

MKT 245—Retailing 4 0 4
A study of the role in 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 250—Advanced Buying 4 0 4
Concerns itself with the scientific use of numbers in merchandising, and the figures and mathematical techniques that are employed to translate fashion into the profit-making activities of planning, pricing, and controlling quantities. Included in the course of study will be extensive dealings with the six-month plan, markdowns, markups, assortment plans and other responsibilities of the actual buyer. Prerequisite: MKT 249.

MKT 260—Visual Merchandising 4 0 4
Examines display as a visual merchandising medium, and covers the principles of display design and their applications to fashion merchandising environs.

MAINTENANCE

MNT 1134—Mechanical Maintenance 4 0 4
To acquaint the student with the basic fundamentals of installation, maintenance and repair of machines. Miscellaneous electrical, mechanical, hydraulic, pneumatic and lubrication devices are installed and maintained. Methods of rigging and use of precision measuring tools and checking for accuracy, squareness, and correct center line distance is stressed for pre-start inspection. Prerequisites: MEC 1101, 1102, BPR 1104. Corequisite: ELC 1112.

MUSIC

MUS 102—Music Appreciation 5 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 are studied and compared by lectures and by listening.

NURSING — ASSOCIATE DEGREE

NUR 100—Nursing Role Transition 3 2 0 4
This course is designed to facilitate the entry of the practical nurse graduate seeking advance placement into the second year (fourth quarter) of the Foothills Nursing Consortium Associate Degree program. The program's philosophy, conceptual framework, objectives and the legal roles and responsibilities of registered nurses will be presented and practice skills will be reviewed and supplemented to equate the level of mastery of the generic student specifically in the areas of: nursing practice, nursing process, physical assessment, nursing diagnosis, nursing care planning, patient teaching, and documentation. Practice in calculating dosages and solutions of medications/fluids will also be included. A minimum grade of "C" is required for all advanced placement candidates prior to being accepted into the nursing program and must be updated every three years. Prerequisites: LPNs or PNE graduate of an approved program requesting advanced placement (on demand).

NUR 101—Basic Concepts of Nursing 6 4 3 9
Basic Concepts of Nursing is a foundational course which provides the opportunity for students to explore basic facts, principles and concepts related to nursing roles and functions, patient needs, nursing problems, the nursing process, and the nurse-patient relationship. Units are included in the nurse's role in assessing and meeting patients' needs for comfort, cleanliness, rest, activity, and safety, and the needs of individuals with altered body functions. Prerequisite: Admission to Program. Corequisites: NUR 102, NUT 101, BIO 107.

NUR 102—Pharmacological Concepts in Nursing 3 0 0 3
A study of principles and skills utilized in the computation and administration of medications. Major classifications of drugs are introduced as a basic continued study of pharmacology. The course emphasizes the nursing roles of provider of care, and client/patient teacher. Pharmacological agents are considered as a means of promoting health and treating illness in individuals throughout the life span. The nursing process is presented as a means of assessing and providing for optimum safety, and is legal implications. (Lab time is shared with NUR 1010). Prerequisite: Admission to Program. Corequisite: NUR 101.

NUR 103—Nursing Care of Adults I 4 2 12 9
A study of health care needs of the adult with common problems related to cellular function, sensory, urological, mobility, and oxygenation alterations, utilizing concepts of prevention, psychophysiotherapy, and nursing management. Prerequisites: NUR 101, 102, NUT 101. Corequisite: BIO 108.

NUR 104—Nursing Care of Adults II 4 0 12 8
Health care needs of individuals with common health problems related to hematologic, ingestive, absorptive, eliminatory, metabolic regulatory, and reproductive dis-

orders. The concepts of prevention, psychophysiotherapy, and nursing management are utilized to guide the course of study. Prerequisite: NUR 103. Corequisite: BIO 109.

NUR 105—Mental Health Nursing 5 0 12 9
A study of the person experiencing altered patterns of behavior. Major focus is upon coping mechanisms, appropriate nursing intervention, psychotherapeutic modalities, communication skills, and the formation of therapeutic relationships. The concepts of Maslow's Hierarchy of Needs and the nursing process are utilized. Prerequisites: NUR 105, PSY 208. Corequisite: none.

NUR 201—Nursing Care of Older Adults 4 0 12 8
This course provides the student an opportunity to utilize the nursing process in meeting the needs of the older adult in the acute care, long-term care, and the community settings. Special emphasis will be placed on the aging process as it applies to the body systems and development changes. Content will include pathological alterations commonly occurring in the older adult. Planned learning experiences will be designed to give the student contact with the older adult in a variety of situations. Prerequisite: NUR 202. Corequisite: none.

NUR 202—Nursing Care of the Childbearing Family 5 0 12 9
A study of the roles of the associate degree nurse in the health care of the mother, infant, and family during the normal and high-risk childbearing cycle using the nursing process and a human needs theory as guides. (1/2 quarter). Prerequisite: NUR 105, SOC 102. Corequisite: None.

NUR 203—Nursing Care of Children 5 0 12 9
A study of the health care of children utilizing a human 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 his/her family unit. (1/2 quarter). Prerequisite: NUR 105, SOC 102. Corequisite: None.

NUR 204—Nursing Care of the Adult III 5 0 15 10
Health care needs of the adult experiencing health problems which accompany serious or critical illness. Provides the learner with the opportunity for implementation of the nursing process in complex nursing situations. In addition, emphasis is placed upon integration of concepts, skills, and responsibilities designed to aid in the transition from nursing student to registered nurse. Understanding of the ADN roles are enhanced through a comprehensive clinical practicum in a variety of structured settings. Prerequisite: All NUR courses. Corequisite: NUR 205.

NUR 205—Nursing Perspectives and Issues 3 0 0 3
Major trends and issues impacting the profession of nursing. Selected events, organizations, legal and ethical aspects, opportunities, and responsibilities related to the practice of nursing are addressed. The role and functions of the associate degree nurse within the scope of nursing practice and the health care system are considered. Maslow's Hierarchy of Needs provides a framework for focusing on the student, client, and society. Prerequisite: NUR 203. Corequisite: NUR 204.

NURSING — PRACTICAL NURSE EDUCATION

NUR 1116—Fundamentals of Nursing 9 4 0 11
This course is a presentation of nursing knowledge and skills necessary to meet the basic needs of patients. Areas of study include ethical and legal responsibilities; communication; and assessing, recording, and reporting pertinent patient information. Implementation of basic nursing skills are demonstrated and practiced in the nursing laboratory. Corequisites: BIO 107, NUT 101.

NUR 1117—Pharmacology 3 2 4
This course is an introduction to drug therapy. A foundation of general knowledge in sources of drugs, legal control of drugs, computing dosages, classification and action of common drugs, and safety factors the nurse must use in administering drugs. Prerequisite: NUR 1116. Corequisites: NUR 1118, NUR 1119.

NUR 1118—Medical-Surgical Nursing I 5 0 0 5
This course is an introduction to common adult health problems with emphasis on understanding the nursing care of patients with infections, cancer, long-term illness, and respiratory problems. Basic concepts in health promotion, illness processes, diagnostic procedures, therapy, and rehabilitation are explored in terms of nursing intervention, assessment, and evaluation. Prerequisites: NUR 1116, BIO 107, NUT 101. Corequisites: NUR 1119, NUR 1117, BIO 108.

NUR 1119—Clinical I 0 0 12 4
Beginning clinical experience in the care of adult medical patients with clinical activities planned in assessing basic needs, planning nursing care, and implementation of basic nursing skills. Prerequisites: NUR 1116, BIO 107, NUT 101, PSY 101, ENG

101. Corequisites: NUR 1118, NUR 1117, BIO 108.

NUR 1121—Maternal Child Nursing I **4 0 0 4**
This course is an introduction to the needs of the mother during normal pregnancy, labor, delivery, and postpartum states. It includes a study of the needs of the newborn and an introduction to common complications of the obstetrical patient. Prerequisites: NUR 1118, 1119. Corequisites: NUR 1117, 1123.

NUR 1122—Medical-Surgical Nursing II **5 0 0 5**
This course is a study of the nursing assessment, intervention, and evaluation in the care of patients with surgical conditions; and disorders affecting the circulatory, gastrointestinal urinary, and endocrine systems. Prerequisite: NUR 1118. Corequisite: NUR 1123.

NUR 1123—Clinical II **0 0 15 5**
Clinical experience in the assessment of nursing needs, planning, implementation, and evaluation of nursing care for the adult surgical patient, the obstetrical patient, and the newborn infant. Prerequisites: NUR 1117, 1118, 1119. Corequisites: NUR 1120, 1121, 1122.

NUR 1124—Maternal Child Nursing II **4 0 0 4**
This course is the study of the well child, adaptation of nursing skills to various levels of development and maturation, and the nursing management of children with common pediatric illnesses. Prerequisite: NUR 1120. Corequisite: NUR 1126.

NUR 1125—Medical-Surgical Nursing III **5 0 0 5**
This course is a study of the nursing assessment, intervention, and evaluation in the care of patients with problems affecting sexuality, mobility, neurological function, vision, hearing, skin integrity, and the immune response. Prerequisite: NUR 1122. Corequisite: NUR 1126.

NUR 1126—Clinical III **0 0 15 5**
Clinical experience in the assessment of nursing needs, implementation and evaluation of nursing care for adult surgical and pediatric patients. Prerequisites: NUR 1120, 1122. Corequisites: NUR 1124, 1125.

NUR 1127—Vocational Adjustments **1 0 0 1**
This course is designed to help the student make the adjustment from the role of a student to that of a graduate practical nurse. It involves a study of ethical and legal aspects, provisions of the Nurse Practice Act, employment and continuing education relevant to the graduate practical nurse. Prerequisite: NUR 1123. Corequisite: NUR 1126.

NUTRITION

NUT 101—Nutrition and Diet Therapy **3 0 3**
This course focuses on the nutritional requirements of growth and the contribution to good health by proper nutrition. The harmful effects of inadequate diet are discussed. Fundamentals of normal nutrition are used to introduce the student to diet changes, made necessary by illness. The principles of meal planning and the selection, preparation, and storage of foods are included.

NUT 110—Early Childhood Nutrition **3 0 3**
This course studies the nutritional needs of young children. The importance of nutrition in the lives of growing children and the caregiver's role in providing sound nutrition. Students will identify guidelines that support the development of healthful eating habits. Areas of study will include: Recommended Dietary Allowances, Food Guide Pyramid, selection, preparation, and storage of food.

SECRETARIAL

OSC 102—Keyboarding/ Typewriting **2 2 3**
Introduction to the touch keyboarding system with emphasis on current techniques, mastery of the keyboard, simple business correspondence and tabulation.

OSC 103—Document Formatting **2 2 3**
Instruction emphasizes the development of speed and accuracy with further mastery of correct keyboarding techniques. These skills and techniques are applied in tabulation, manuscript, correspondence and business forms. Prerequisite: OSC 102 or equivalent.

OSC 104—Document Production/ Word Processing **2 2 3**
Emphasis on production keyboarding problems and speed building. Attention to the development of the student's ability to function as an expert typist, producing mailable copies. The production units are tabulation, manuscript, correspondence, and business forms. Prerequisite: OSC 102 or equivalent.

OSC 106—Shorthand I **2 2 3**
A beginning course in the theory and practice of reading and writing shorthand. Emphasis on phonetics, penmanship, word families, brief forms and phrases.

OSC 107—Shorthand II 2 2 3
Continued study of theory with greater emphasis on dictation and elementary transcription. Prerequisite: OSC 106 or equivalent.

OSC 108—Shorthand III 2 2 3
Theory and speed building. Introduction to office style dictation. Emphasis on development of speed in dictation and accuracy in transcription. Prerequisite: OSC 107.

OSC 112—Records Management 2 2 3
Fundamentals of indexing and filing, combining theory and practice by the use of miniature letters, filing boxes and guides. Methods covered are Alphabetic, Numeric, Geographic, Subject, Soundrex and Chronological filing.

OSC 183M—Medical Terminology and Vocabulary I 4 0 4
This course teaches the student the mechanics of understanding medical words—their roots, prefixes and suffixes. Students learn to spell, pronounce and define medical terms that may be encountered by a medical secretary.

OSC 201—Machine Dictation and Transcription 2 2 3
Objectives of this course are to develop skill in using transcription machines to transcribe correctly at the computer. The student will gain knowledge of many kinds of business correspondence, increase business vocabulary and develop an understanding of secretarial procedures.

OSC 202M—Medical Dictation and Transcription I 2 2 3
This course prepares the student to become a skilled medical transcriptionist using a computer, transcribing unit and pre-recorded cassettes. Material covered includes case studies, physical examinations, operation records, medical correspondence, and x-ray or pathological reports, etc. Prerequisites: OSC 183M, 205.

OSC 203M—Medical Dictation and Transcription II 2 2 3
This course is a continuation of OSC 202M. The student continues to build skill and speed in transcribing various medical records at the computer. Upon successful completion of course requirements the student will receive the AMRA certificate. Prerequisite: OSC 202M.

OSC 205—Advanced Word Processing Application I 2 2 3
Emphasis is placed on the development of individual production rates. The student learns the techniques needed in planning and in keying projects that closely approximate the work appropriate to the field of study. These projects include review of letter forms, statistical tabulation, and the typing of reports, manuscripts and legal documents. Prerequisite: OSC 104.

OSC 206E—Dictation and Transcription I 2 2 3
Develops the skills of taking dictation and transcription at the computer, materials appropriate to the course, which includes a review of theory and dictation of familiar and unfamiliar material at varying rates of speed. Prerequisite: OSC 108.

OSC 211—Office Machines 0 2 1
This course is designed to teach the student the correct procedures to follow in preparing, copying and duplicating masters. In addition, the student learns to operate various types of copying and duplicating equipment. Prerequisite: OSC 104.

OSC 214—Administrative Office Procedures 2 2 3
Designed to acquaint the student with the responsibilities encountered by a secretary during a work day. Among these are the following: receptionist duties, handling mail, telephone techniques, telegrams, office records, travel information, purchasing of supplies, office organization and insurance claims. Prerequisite: OSC 104.

OSC 216—Medical Secretarial Procedures 2 2 3
This course introduces the medical secretary to the activities, responsibilities, skills and work habits encountered in the professional office. Some of these are meeting and handling patients, processing medical records and forms, managing the office and assisting the doctor. Suggested prerequisite: OSC 205.

OSC 248—Medical Insurance 2 2 3
This course is designed to provide medical office personnel with a basic understanding of medical insurance, terminology, types of health insurance available and claims processing for the medical secretary.

OSC 284M—Medical Terminology and Vocabulary II 4 0 4
This course emphasizes a more detailed and comprehensive study of medical terms. The student's ability to spell, define and pronounce medical words is enhanced while studying basic anatomical terminology. Suggested prerequisite: OSC 183M.

PHYSICAL EDUCATION

PED 101—Physical Conditioning I 0 2 1
A course designed to teach the student basic conditioning techniques with an overall objective of the physical fitness.

PED 102—Softball 0 2 1
A course designed to teach the basic fundamental skills of softball. Emphasis is placed on conditioning, rules and skills.

PED 103—Tumbling 0 2 1
The fundamentals of rolls, cartwheels, and pyramids are taught using the springboard and mats. Major emphasis of the course is to learn how to fall without injury. Group stunts are also covered.

PED 104—Basketball 0 2 1
This course introduces the student to various rules, skills, and fundamental techniques of basketball.

PED 105—Weight Training 0 2 1
Introduction to the proper skills in the execution of the various lifts and instruction in the health and safety factors that are related to the development of an individualized weight training program.

PED 107—Low Impact Aerobics 0 2 1
A course designed to improve muscular strength, muscular and cardiovascular endurance, flexibility and body composition through the use of low impact aerobics routines.

PED 108—Tennis I 0 2 1
A course designed to develop a higher level of neuromuscular skill, coordination, balance, endurance and tennis strategy.

PED 109—Modern Dance 0 2 1
A course designed to develop and improve fundamental skills in dance movements and techniques and to encourage appreciation of dance as an art form and medium of education.

PED 110—Volleyball 0 2 1
A course designed to include the fundamental skills, history, rules, and strategy of the game with special emphasis on carryover value of activity.

PED 111—Golf 0 2 1
A course designed to teach the student the rules, regulations, etiquette and fundamental skills of beginning golf.

PED 112—Physical Conditioning by Circuit Training 0 2 1
A second course in physical conditioning designed to provide the student with advanced participation in physical conditioning and circuit training. The student also develops a personal physical maintenance program. Prerequisite: PED 101.

PED 113—Tennis II 0 2 1
A course designed to teach strategy and execution of successful skills used in a tennis match. Emphasis is placed on execution of forehand, backhand, serve, volley, and double plays and strategy. Prerequisite: PED 101.

PED 114—Physical Fitness 0 2 1
In this course students are taught aerobic exercises, composed of light to vigorous choreographed movements, designed to improve and maintain cardiovascular endurance. A major goal of the class is to lower the resting heart rate of all students.

PED 115—Self Defense 0 2 1
This course is designed to help students learn and understand basic self defense techniques. Philosophies and attitudes regarding personal security are disclosed.

PED 116—Personal and Community Health 3 0 3
This course, a basic study of personal and community health, includes topics such as proper health habits and attitudes, diet, drugs, and health service agencies.

PED 117—Wellness 1 2 2
A course designed to explore the health and fitness from the whole person perspective. Special emphasis will be placed on developing and maintaining an adequate level of physical fitness while designing an individual program.

PED 118—Step Aerobics 0 2 1
A course designed to improve muscular strength and muscular and cardiovascular endurance through the use of step aerobics. Very low risk of injury and applicable to almost any person.

PED 119—Combo Aerobics 0 2 1
A course designed to improve muscular strength and cardiovascular endurance. It allows for a great deal of variation between low impact and step aerobics.

PED 120—Body Toning 0 2 1
A course designed to "spot" work muscle groups without the use of weights. The routines will increase muscular strength, endurance as well as flexibility.

PED 121—Physical Education Concepts 1 2 2
A thorough investigation into the theoretical and practical application of basic concepts in physical education. A lecture-laboratory course of instruction providing the individual with a complete wellness physical profile which will include the following tests: cardiovascular endurance, muscular strength, muscular flexibility, body composition, cardiovascular risk, cancer risk, stress assessment and smoking risk.

PED 122—Sports Officiating - Football and Soccer 0 2 1
Study of rules, officiating technique, and the teaching of procedures concerning

football and soccer. A definite number of hours will be assigned for practical experience in officiating during scrimmage.

PED 123—Sports Officiating - Basketball and Volleyball 0 2 1
Study of rules, officiating technique, and the teaching of procedures concerning basketball and volleyball. A definite number of hours will be assigned for practical experience in officiating during scrimmage.

PED 124—Sports Officiating - Baseball and Softball 0 2 1
Study of rules, officiating technique, and the teaching of procedures concerning baseball and softball. A definite number of hours will be assigned for practical experience in officiating during scrimmage.

PHILOSOPHY

PHI 102—Introduction to Philosophy 5 0 5
The study of philosophical history and writings from ancient to modern times, with special emphasis on the philosophical concepts including naturalism, idealism, systematic philosophy, realism, British empiricism, and existentialism. Representative philosophers include Plato, Aristotle, Descartes, Berkeley, Kant, St. Augustine, Hegel, Bacon, Kirkegaard, Sartre, Camus, and Frankl.

PHI 103—Logic 5 0 5
Fundamentals of categorical and propositional logic and the analysis of language and problem solving.

PHI 104—Ethics: Problems for a Just Society 5 0 5
Acquaints the students with primary sources of significant thinking on contemporary issues and how they relate to the leading developments in the history of moral philosophy.

PHOTOGRAPHY

PHO 101—Fundamentals of Photography 2 2 3
An introduction to the field of photography, photographic equipment and materials. A study of the fundamental techniques of the camera and its expressive possibilities in relation to the field of design and visual communications. Assigned camera projects, darkroom procedures and equipment.

PHO 102—Intermediate Photography 2 2 3
A continuation of PHO 101.

PHO 119—View Camera and Zone System 2 2 3
A comprehensive study of the capabilities of the view camera, including: tilts, swings, shifts, plane of focus, depth of field and shape modifications. Perspective control as it pertains to architectural photography will be principle focus. A thorough study of the zone system from Ansel Adams to Phil Davis, from guestimation to exactitude will be taught. The use of computer technology in exposure and development control will be introduced, as well as sheet film handling and processing. Prerequisites: PHO 101 and PHO 102.

PHO 201—Introduction to Color Printing 2 2 3
Introduction to Color Printing is a continuation of the learning experience begun in Fundamentals of Photography and Intermediate Photography. (These courses will not be prerequisites to Introduction to Color Printing.) Many aspects and techniques involved with photographing in color beyond those normally encountered in black and white photography will be covered in detail. The processing and printing in color images from color negatives and color slides will give each student a thorough working knowledge of new lab procedures and color printing techniques.

PHO 202—Color Printing II 2 2 3
A continuation of PHO 201 with emphasis on production of large color prints to 20" X 24". Use of various electronic color analyzers to determine color balance and exposure. Emphasis on craftsmanship. Prerequisites: PHO 101 and PHO 201.

PHYSICS

PHY 107—General Physics 4 0 0 4
This course is designed to take the student from basic fundamentals through advanced physics covering such areas as: structure of matter; electric current; electrostatics, units of measurement; electrodynamics; magnetism and electromagnetism, electric generators and motors.

PHY 108—Radiation Physics 3 2 0 4
The production and control of high voltage and rectification; x-ray tubes and rectifiers and an introduction to therapy and nuclear medicine. Prerequisite: PHY 107.

PHY 201—Physics I 3 2 4
The first quarter of college physics; mechanics (with emphasis on measurement); vectors and scalers; force systems, translational and rotational motion; work and energy; hydraulics. Prerequisite or Corequisite: MAT 121 or equivalent or science faculty approval.

PHY 202—Physics II 3 2 4
The second quarter of college physics; kinetic theory of matter, heat, thermodynamics, wave motion and sound, and the properties of light. Prerequisite: PHY 201.

PHY 203—Physics III 3 2 4
The third quarter of college physics; electricity and magnetism-status electricity, potential, Ohm's law, parallel and series circuits, Kirchoff's Laws, magnets, induced electromotive force, motors and generators. Also modern physics: relativity; Bohr atom, x-ray and gamma rays, and atomic structure. Prerequisite: PHY 202.

PHY 1101—Applied Physics 4 0 4
An introduction to physical principle and their application to industry. Topics in this course include measurements, properties of solids, liquids, gases and basic electrical principles.

PLUMBING

PLU 1112—Installation of Plumbing Fixtures 2 6 4
The difference in materials and styles of lavatories, bathtubs and sinks, and the many ways that these fixtures can be installed will form the basis of this course. The proper use of traps is included. The student will get actual practice by making installations.

PLU 1113—Drainage and Vent Systems 4 12 8
The student will become familiar with identifying the different fittings used and the proper use of each fitting. The function of the drain vent system. The proper use of a transit and how to calculate the proper fall needed in the drainage system. How to figure fixture units and sizing the drainage and vent pipes accordingly. The difference between the soil and waste pipes.

PLU 1114—Residential Water Systems 3 9 6
The student will become familiar with sweating copper, gluing CPVC and PVC and crimping polybutelene for the hot and cold water system and how to install in any given situation and/or climate. How to size hot and cold water lines according to the fixtures to be supplied. How to size hot water heaters according to the demand and the output of various tanks. The proper use and installation of valves in a water system. How to use a propane torch and other hand tools properly.

PLU 1120—Low Pressure Steam Systems 2 6 4
The student will become acquainted with types of low pressure steam boilers, the principles of boiler operation. Boiler accessories such as connectors, fittings, and insulation are to be included. Low pressure steam systems, their layout, and component parts will be studied and installed. Equipment used in heat transmission, such as radiators, coils and connectors will be included.

PLU 1123—Hot Water and Panel Heating 3 6 5
The piping and accessory equipment needed to transfer hot water to radiators, heaters, and coils, and the advantages and disadvantages of each of these units will be studied, including apparatus for radiant heating and panel heating. Methods of "sizing" equipment for various installations will be provided in installing this equipment.

PLU 1125—Industrial Piping 3 9 6
Piping systems of boilers, turbines, and steam engines especially as they are used in steam power plants and process piping such as in the chemical industries will be major emphasis of this course.

PLU 1126—Hydraulic Systems Plumbing 3 3 4
Plumbing application in hydraulic systems. Hydraulic principles, circuits, control valves, actuators, pumps, fluids and various accessories that complete hydraulic systems will be studied. Installation and servicing methods of these systems will be undertaken.

PLU 1128—North Carolina Plumbing Code 4 0 4
A study of the North Carolina plumbing code, in preparation for the licensing examination. Instruction will include the latest code revisions, safety measures and standard practices in the plumbing of single and multi-family dwellings, commercial establishments and industrial locations.

POLITICAL SCIENCE

POL 104—Government in America 5 0 5
This course examines the divisions of power between the federal, state, and local government in the United States. Special topics include the federal Constitution, the federal and state branches of government, and political parties on the federal, state, and local level. Special emphasis will be placed on North Carolina and Cleveland County.

POL 204—Great Decisions - Foreign Policy 3 0 3
A discussion of key foreign policy issues faced by the United States and its citizens in the current year.

POL 205—The U.S. Constitution 1 0 1
The U.S. Constitution will be studied and discussed. In addition, the role of the U.S. Supreme Court will be analyzed.

PSYCHOLOGY

PSY 104—Introduction to Psychology 5 0 5
A survey of the principal divisions of psychology and the major theoretical and practical movements within each. Subject areas include: the pioneers of psychology, psychological research, psychology of the mind, human development, cognition and memory, emotions, personality, abnormal conditions, and other areas of interest and importance.

PSY 105—Psychology of Adjustment I - Self 1 0 1
Leads the student in exploration of the self, helps the student understand development of personality and social influences. Emphasis is on personal growth and development.

PSY 106—Psychology of Adjustment II - Stress 1 0 1
Emphasizes the elements of stress in daily life as well as exceptional stress (e.g., divorce, bereavement). Purpose of course is not only to understand stress but learn to cope with it more effectively.

PSY 107—Psychology of Adjustment III - Solving Life's Problems 1 0 1
This course deals with major life problems (e.g., depression, anger, impulsiveness, addiction) and seeks both to understand them and suggest effective ways of handling them.

PSY 108—Psychology of Adjustment IV - Relationships 1 0 1
Relationships are at the center of life. This course examines basic areas as gender, sexuality, communication, and attachment. A variety of relationships (parent-child, friendships, siblings, marriage) are considered. Emphasis is on individual development of relational skills.

PSY 109—Psychology of Adjustment V - Adult Challenges 1 0 1
This course describes the characteristics of psychological maturity, examines the normal challenge of the adult years, and explores a variety of ways in which an individual's adult experience can be enhanced.

PSY 203—Group Processes 5 0 5
An examination of group processes and structure with emphasis on the development of decision-making and problem solving skills. Consideration is given to goals and strategies associated with social change and how people can serve as "change agents" in society.

PSY 205—Personality 5 0 5
A survey of the major theories of personality. In addition to considering research into the formation of personality, the course examines personality disorders. Prerequisite: PSY 104.

PSY 208—Human Growth and Development 3 0 3
A focused examination of normal and abnormal development from conception to death. Particular emphasis is placed on pre- and perinatal conditions and gerontology. Attention is given to biosocial factors influencing development with a special focus provided on health care settings and issues.

PSY 212—Lifespan Development 5 0 5
A general developmental course, the nature-nurture debate is examined and various development theories are surveyed. Attention is given to both stage and lifespan developmental perspectives. All areas of development characterizing human life are considered.

PSY 214—Abnormal Psychology 5 0 5
The course examines those psychological conditions that give rise to personal dysfunction or distress. All areas currently included in the mental health diagnostic manuals are surveyed. Treatment alternatives and social implications are also discussed. Prerequisite: PSY 104 or equivalent.

PSY 215—Infant and Child Psychology 5 0 5
A study of human life from conception through the early school years. Physical, social, intellectual, emotional, and personality development are surveyed. Attention is given to practical parenting issues as well.

PSY 1101—Human Relations 4 0 4
A study of basic problems of human behavior. The problems of the individual are studied in relation to society, group membership, and relationships within the work setting.

RADIOGRAPHY

RAD 101—Positioning I 3 2 0 4
This course will cover basic radiographic positions for the upper and lower extremities. Basic radiographic terminology will be taught.

RAD 102—Principles of Radiographic Techniques I 3 2 0 4
The student will be taught the fundamental principles of radiographic exposure. This course will include all technical information of proper contrast and technical selections needed for radiography conversion of techniques, evaluation of technical quality, and technical changes necessary to improve quality.

RAD 103—Processing Technique 2 2 0 3
This course will deal with automatic processing and film critique for darkroom application, the chemical uses, their purpose in processing and methods of quality control.

RAD 104—Radiographic Anatomy 4 0 4
A study of the anatomy of the nine systems of the body with special emphasis on the skeletal system.

RAD 105—Critique I 1 0 0 1
Evaluation of repeated radiographs and high quality radiographs to instruct students in prevention of technical and positioning errors and how to attain quality radiographs. Special emphasis will be placed on positions taught in Positioning I.

RAD 107—Clinical I 0 0 12 4
Practicum experience in a clinical setting. This experience will include practice in ethical and attitudinal situations during patient contact, patient care and basic positioning for radiologic studies of the chest, upper and lower limbs, and the abdomen. The student will process radiographs and apply basic principles in radiographic exposure. Departmental professional procedures will be initiated into the student's clinical routine.

RAD 108—Clinical II 0 0 12 4
The student will apply, in the hospital, what they have learned in class. All students will be under the supervision of an instructor or a registered technologist.

RAD 109—Radiologic Patient Care Procedures 2 0 0 2
Basic patient care procedures will be taught which are pertinent to the radiographer. Taking vital signs, venipuncture and the use of the crash cart will be included.

RAD 110—Introduction to Radiologic Technology 1 0 0 1
An introduction to the field of radiology with an overall view of Radiologic Technology and the part radiology plays in medicine. The student will become completely acquainted with the ethics and basic radiation protection and will be acquainted with the administrative structure of the hospital and departmental functions. Basic patient care is also presented.

RAD 111—Positioning II 3 2 0 4
This course will cover the basic radiographic positions of the spine and skull. Prerequisite: RAD 101.

RAD 113—Critique II 1 0 0 1
A continuation of Critique I with special emphasis on positions taught in Positioning II.

RAD 115—Clinical III 0 0 18 6
Three days of practicum in the hospital to apply all the didactical knowledge acquired in the two previous quarters.

RAD 116—Clinical IV 0 0 18 6
Intensified practicum in the hospital to apply all the didactical knowledge the student has acquired in the past year.

RAD 121—Positioning III 3 2 0 4
This course will cover basic radiographic positions of examinations using contrast media and advanced skull positioning. Prerequisite: RAD 111.

RAD 123—Critique III 1 0 0 1
A continuation of Critique II with special emphasis on positions taught in Positioning III.

RAD 141—Special Procedures I 2 0 0 2
Detailed studies of special procedures, the related pathology and anatomy demonstrated and the contrast media used.

RAD 201—Radiologic Protection 4 0 0 4
This course deals with the effects of radiation on the body, ways of patient and personal protection and governmental regulations.

RAD 204—Clinical V 0 0 18 6
Continuation of practicum with emphasis on finer details of improvement to attain a high quality in practicum.

RAD 205—Clinical VI 0 0 18 6
Practicum with emphasis on special procedures and examinations not commonly performed on a routine basis.

RAD 206—Clinical VII 1 0 18 7
Detailed practicum preparing for graduation and review for the certification exam.

RAD 207—Clinical VIII 2 0 18 8
Practicum within the hospital with oral and practical examination. General evaluation of the student's practicum capabilities will be summarized. Also included will be review for the certification examination and CPR certification.

RAD 209—Radiographic Pathology 2 0 0 2
This course includes various pathologies of the nine systems of the body and how

some of these pathologies appear radiographically.

RAD 210—Medico Legal Issues 2 0 0 2
Basic legal and ethical standards will be taught, and case studies will be discussed.

RAD 211—Processing Technique 2 2 0 3
This course will deal with automatic processing and film critique for darkroom application, the chemical uses, their purpose in processing and methods of quality control.

RAD 213—Positioning IV 2 2 0 3
The final study of radiographic positioning, including nonroutine positions and pediatric radiology.

RAD 222—Principles of Radiographic Technique II 2 2 0 3
Advanced formulation of techniques for all phases of radiography. Experimentation on various technical procedures with written reports to coordinate results of experiments. Prerequisite: RAD 201.

READING

RED 99—Basic Reading Skills 4 0 4
A course designed to improved the student's basic reading skills. Content includes reading comprehension, vocabulary, word attack skills and word recognition skills. This is a developmental course which will not count for credit toward any degree, diploma or certificate program.

RED 104—Reading Dynamics 4 0 4
An aid to improve the student's ability to read rapidly and accurately. Special emphasis on comprehensive, vocabulary, critical and analytical reading skills, and the study of reading materials related to the student's curriculum.

RED 1101—Reading Improvement 4 0 4
Designed to improve overall efficiency with special emphasis on purpose, comprehension, word recognition skills, and the study of reading material related to the student's curriculum.

RELIGION

REL 104—Major World Religions 5 0 5
A comparative religion course examining major religions: Hinduism, Buddhism, Zoroastrianism, Islam, Judaism, Christianity, and Cults.

REL 105—Old Testament Survey 5 0 5
A survey of the history, literature, personalities and religion of the Old Testament.

REL 106—New Testament Survey 5 0 5
A general survey of the New Testament literature including the Holistic background, the life and teaching of Jesus, the growth and faith of church, the letters of Paul and other writings.

REL 201—Philosophy of Religion 5 0 5
An introduction to selected issues raised through a philosophical investigation of religion including, but not confined to, the nature of religious language, the existence of God, the problem of evil, fideism, miracles, revelation, and the challenge of the religions of the world.

REL 202—History of Christianity 5 0 5
Beginning with the Reformation, this course is descriptive of church history to the present. Prerequisite: HIS 105.

REL 215—Religion in American Society (Travel) 5 0 5
Experience the power of places and contemplate the connections among people, their ideas, and their physical environments. This unique travel course boldly goes where others have gone before in order to understand how places shape religious ideas and movements. May be substituted for REL 202.

REL 216—Religion in Southern Culture (Travel) 5 0 5
Experience the complexity and richness of southern culture. Classroom examination of religion "southern style" is complemented by select one-day and weekend (3 day) trips during a unique and valuable summer session package.

REL 217—Psychology and Religion 5 0 5
An introduction to issues raised through a philosophical investigation of religion. Course contents include study of religious language, arguments for God's existence, the problem of evil, and other basic matters.

REAL ESTATE

RLS 162—Fundamentals of Real Estate 6 0 6
This course consists of instruction in fundamental real estate principles and practices, including real estate law, financing, brokerage, closing, valuation, management, taxation and mathematics. Also included is instruction on residential building, construction, land use, the real estate market and North Carolina Real Estate Commission. Upon completion of this course, the student will have met the educational requirements of the North Carolina Real Estate Licensing Board for admission to the real estate broker licensing examination. The primary objectives of this course are (1) to provide students with the basic knowledge and skills necessary for entry-level estate salesmen and (2) to prepare students for the real estate salesman licensing examination.

RLS 164—Real Estate Law 3 0 3
This course consists of advanced-level instruction in real property ownership and interests, transfer of title to real property, land use controls, real estate brokerage and law of agency, real estate contracts, landlord and tenant law, mortgages/deeds of trust, property insurance, federal income taxation of real estate, the North Carolina Real Estate Licensing Law, Rules/Regulations of the North Carolina Real Estate Licensing Board, and the Licensing Board's "Trust Account Guideline." Prerequisite: RLS 162 or possession of a current salesman's license.

RLS 209—Real Estate Finance 3 0 3
This course consists of advanced-level instruction on the major aspects of financing real estate transaction, including sources of mortgage funds, the secondary mortgage market, financing instruments, types of mortgage loans, under-writing mortgage loans, consumer legislation affecting real estate financing, real property valuation, closing real estate sales, transactions and finance mathematics. Prerequisite: RLS 162.

RLS 234—Real Estate Sales and Brokerage 3 0 3
This course consists of basic instruction in the various aspects of real estate brokerage operations including establishing a brokerage firm, management concepts and practices, personnel and training, marketing operations, records and bookkeeping systems (including trust account bookkeeping), and financial operations. Prerequisite: RLS 162 or possession of a current salesman's license.

RADIO, TELEVISION

RTV 100—Introduction to Television and Cable Production 3 2 4
An introduction to creative techniques, materials, and equipment involved in television taping. Pre-production principles and methods are designed for beginning and intermediate students to improve their use of home and professional systems.

RTV 101—Advanced Television and Cable Production 3 2 4
A continuation of RTV 100; use of studio equipment for titling and effects; special projects on television production.

RTV 102—Introduction to Audiovisual Equipment and Basic Production 2 2 3
A study of the operation of projection equipment, tape recorders, record players and synchronization equipment.

RTV 103—Media Writing 3 2 4
The study and production of the various formats for effective writing for radio, television, and film.

RTV 104—Introduction to Mass Communication 3 0 3
History and review of media development and means of informing and influencing public views.

RTV 118—Basic Film Technology 2 2 3
A study of basic film techniques including camera use, lighting, exposure, editing, emphasis on distinction between film and video; animation; projects in "Super-8mm."

RTV 200—Media Production I 3 2 4
Planning, scripting, and developing sequences for transparencies, audiotapes, displays, videotapes, films, titling, audio mixing, displaying materials. Prerequisite: RTV 102.

RTV 201—Media Production Lab Project 0 10 5
Student will work in cooperation with the photography and the audiovisual services department in the production of instructional and institutional media.

RTV 202—Media Production II 3 2 4
The development of a photographic series, including film processing, editing negatives, and making, mounting, and displaying prints. Development of a sound-slide series. Prerequisites: RTV 118, 200.

RTV 205—Equipment Repair 2 2 3
This course is designed to help the student understand the mechanical and electrical operations of projection equipment, tape recorders, record players, cable and television equipment, etc. Emphasis will be on locating, trouble-shooting, and repairing equipment.

RTV 206—Lighting and Sound 2 2 3
A study of the use of lighting for stage, film and video; a study of studio sound problems, microphone types, and use of audio mixers.

RTV 207—Video Graphics 3 2 4
A study of and creation of computer-generated television images, from titling to animation.

RTV 208—Law and Ethics 3 0 3
A review of the legal and moral principles that have influenced and continue to influence conduct in media communication.

SAFETY

SAF 106—First Aid and Safety 3 0 3
Students taking this course should acquire a better understanding of first aid and emergency care products.

SOCIOLOGY

SOC 102—Introduction to Sociology 5 0 5
A course that examines society and its institutions and processes, demonstrating to the student that sociology is a rigorous scientific discipline and that a basic knowledge of sociology is essential for understanding social interactions in any setting. Topics to be covered include: sociological theories, culture, socialization of the individual, social interaction, deviant behavior, social inequalities, social change, social issues, and social institutions such as marriage and family, religion, education, and political and economic systems.

SOC 204—Marriage and Family 5 0 5
The student pursues a study of the family in American culture, with attention to the history of the American Family, changing patterns in family roles, gender issues, parent and child relation-ships, work and economics, and family dysfunction.

SOC 205—Contemporary Issues 5 0 5
The content of this course will vary each time it is offered. The course prepares the student to examine key issues and problems in American society today, covering such topics as: minority issues, multi-cultural issues, social deviance, family problems, gender issues, political issues and other areas appropriate for sociological study in the two-year college.

SOC 208—Black Studies 3 0 3
This course is designed to provide opportunities for students to review, discuss and evaluate the experience of Black Americans through the use of films, filmstrips, records and tapes as well as selected readings from autobiographies and biographies of distinguished Black Americans, historical records and documents, and outstanding works of literature and art. Resource people in the community are used whenever possible.

SPANISH

SPA 160—Fundamentals of Spanish I 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.

SPA 161—Fundamentals of Spanish II 3 2 4
A continuation of Fundamentals of Spanish I. Prerequisite: SPA 160.

SPA 162—Fundamentals of Spanish III 3 2 4
A continuation of Fundamentals of Spanish II. Prerequisites: SPA 160, 161.

SPA 260—Intermediate Spanish I 3 2 4
In this course of study, the fundamentals of Spanish are used in the background for a basic study of culture, civilization and literature of Spain with further development of language skills. Prerequisite: Fundamentals of Spanish I, II, III or two years of high school Spanish.

SPA 261—Intermediate Spanish II 3 2 4
A continuation of Intermediate Spanish I. Prerequisite: SPA 260.

SPA 262—Intermediate Spanish III 3 2 4
A continuation of Intermediate Spanish II. Prerequisites: SPA 260, 261.

WELDING

WLD 1101—Basic Gas Welding 1 3 2
Welding demonstrations by the instructor and practice by the students in the welding shop. Safe and correct methods of assembly and operating the welding equipment. Practice will be given for surface welding; bronze welding, silver soldering, and flame cutting methods applicable to mechanical repair work.

WLD 1105—Auto Body Welding 1 3 2
Welding practices on material applicable to the installation of body panels and repairs to doors, fenders, hoods and deck lids. Student runs beads, does butt and fillet welding. Performs tests to detect strength and weakness of welded joints. Safety procedures are emphasized throughout the course.

WLD 1120—Oxyacetylene Welding I2 6 4
This course is designed to acquaint the student with the safety rules of welding, identification, set-up and operation of oxyacetylene welding equipment. The student will be able to carry a puddle without fuller rods, weld in the vertical, horizontal and overhead positions, weld heavy steel plates, identify, weld and braze cast iron, and operate a cutting torch efficiently. The student will be introduced to welding symbols and metallurgy as it relates to oxyacetylene welding.

WLD 1121—Arc Welding I 2 6 4
The student will learn the safety rules of welding, understanding the operation and use of the arc welding machine, identify and know the importance of personal pro-

tective equipment, identify welding tools and types of electrodes, strike an arc and run a bend, and bond two pieces of metal together. The student will be introduced to welding symbols and metallurgy as it applies to arc welding. The student will also become acquainted with blueprints and how they relate to arc welding.

WLD 1122—Commercial and Industrial Practices I 2 6 4
This course is designed to instruct the student in the proper procedure for repairing broken equipment, to fabricate and build parts from new stock. The student will learn the inert gas welding process, practice and become proficient in flat-plate welding and also become familiar with the welding codes, specifications, and certification of the American Welding Society.

WLD 1124—Pipe Welding 2 6 4
This course is designed to give the student knowledge in the operation of pipe welding equipment and accessories, specific welding operations, preparing a welding joint, welding in specified positions, obtaining knowledge of designing and fabrication of pipe and duct ways. The student will be introduced to welding symbols and metallurgy as it applies to pipe welding.

WLD 1320—Oxyacetylene Welding II 3 9 6
A continuation of WLD 1120.

WLD 1321—Arc Welding II 3 9 6
A continuation of WLD 1121.

WLD 1322—Commercial and Industrial Practices II 3 9 6
A continuation of WLD 1122.

WLD 1324—Pipe Welding II 3 9 6
A continuation of WLD 1124.

WLD 1330—Machine Shop Welding 1 3 2
Arc welding demonstrations by the instructor and practice by the students. The operation of AC and DC arc welding heats, polarities and electrodes. Practice will be given for masking groove and fillet type welds. Also deals with the physical and chemical behavior of the metals during shaping, welding, and treating operation.

WOODWORKING

WWK 1306—Introduction to Woodworking 4 0 4
A beginning course in hand woodworking tools and use. This course covers major hand working tools, their care, maintenance and use; types of wood and their use as related to industrial, commercial and residential use.

ZOOLOGY

ZOO 201—Advanced Zoology 3 2 4
A comprehensive study of the animal kingdom including anatomy, physiology, taxonomy, and ecology. Special emphasis will be placed on the invertebrates, and local animals. Prerequisites: BIO 101, 102, 103, or permission of instructor.

NON-CREDIT PROGRAMS

INDUSTRY AND COMMUNITY SERVICES

CONTINUING EDUCATION PROGRAMS

Adult or Continuing Education as defined in this catalog includes activities designed to meet the needs of people beyond compulsory school age whose major occupation may not be that of a full time student. It is the purpose of Cleveland Community College to afford this opportunity to each individual to develop to the fullest potential in vocational, intellectual, or cultural areas. It is also the aim of the College to be of service to area industries, businesses, and public agencies by providing training and upgrading for employees. In order to meet these aims, the Extension and Adult Education Division of the College will help make continuing education available by offering a variety of courses and programs.

The extent of different programs and courses is based upon the interest shown by the community, availability of competent instructors, and the limitations of available equipment, space, and funds. Whenever possible, courses are scheduled as community needs or interests are indicated. Some classes, constantly in demand, are offered on a continuing basis. Others are started at the requests and suggestions for additional courses.

Continuing education classes conducted by Cleveland Community College have two classifications: occupational, and community service programs. The classes are non-curriculum, vary in length, conducted both day and evening, and are taught by qualified instructors selected by the College. A schedule of some classes being offered is announced by the College prior to each quarter and other classes are announced during the quarter, as they are arranged.

ADMISSION

Any adult 18 years or older or any public school student 16 years or older with valid dual enrollment forms are eligible to enroll.

REGISTRATION

Registration will be held at the first class meeting unless specified otherwise. In some instances when enrollment is limited, adults should notify the College by phone, letter, or personal visit to place their names on the pre-registration list for classes.

EXPENSES

Continuing Education classes have a $35.00 registration fee. The only exceptions to the fees are in Fire Service and Law Enforcement Training Programs including Civil Preparedness courses and programs for Emergency Medical personnel. Also, registration fees are

waived for North Carolina residents 65 years of age or older in all courses. A charge may be necessary in some courses for class supplies. Books, when required, are available through the College Store for both campus and off-campus classes.

REFUNDS

Cleveland Community College's refund policy is as follows:

1. A pre-registered extension student who officially withdraws from an extension class prior to the first day will be eligible for a 100% refund, if requested.
2. For a class that meets 4 times or less, a 75% refund shall be made upon the request of the student if the student officially withdraws prior to or on the first day of class.
3. For classes meeting 5 or more times, a 75% refund upon request of student if the student officially withdraws prior to or on the official 20% point of the class. A request for a refund will not be considered after the 20% point.

CLASS LOCATIONS

Many of the Continuing Education classes are held on the campus at Cleveland Community College. Others are conducted throughout Cleveland County in public schools, community centers, churches, industries, businesses or wherever a suitable meeting place can be arranged. Classes may be organized in any community whenever a sufficient number of prospective class members indicate an interest.

ATTENDANCE

A minimum enrollment of 15 persons is needed to conduct a class. Adults are expected to attend class regularly. Attendance records are maintained by the instructors. Insufficient enrollment or attendance may result in cancellation of the class.

CERTIFICATES

Certificates are awarded in certain classes to students successfully completing course requirements. Also, a certificate of High School Equivalency (GED) is awarded to adults who successfully complete the high school equivalency tests.

INSTRUCTORS

Qualified instructors, as determined by the Extension and Adult Education Divisions, will be employed for Continuing Education classes.

OCCUPATIONAL EXTENSION EDUCATION PROGRAMS

Extension classes are designed to meet the needs of industry, business, and other areas of occupational endeavor. Specifically, classes may be organized when there is a need for:

1. Upgrading for those within a specific occupation.
2. Retraining classes for those wishing to change their vocation.
3. Preparation of individuals for initial employment.

All classes are organized where a demand for certain skills is required, based upon the needs of the firm or group as represented. The classes may be arranged on a short or long-range schedule as needed. Flexibility is the key asset in the Occupational Extension Program.

An individual may only repeat an occupational extension class one time.

The following is a partial list of the many broad areas of instruction in which training is available:

Fire Service Training
Law Enforcement Training
Industrial Training

NEW INDUSTRY TRAINING

One of the primary functions of Cleveland Community College is to stimulate the creation of more challenging and rewarding jobs for the people of our area by providing a type of training geared to the needs of new and/or expanding industries. With some limitations, this institution, in cooperation with the Industrial Services Division of the State Department of Community Colleges, will design and administer special programs for training the production manpower required by any new or expanding industry which results in creating new job opportunities for North Carolina.

In addition to helping any new or expanding industry meet its immediate manpower needs the program seeks to encourage each industry to develop a long-range training program of its own to satisfy its continuing replacement and retraining needs.

For further information on the New or Expanding Industry program, please contact the Department of Continuing Education, Cleveland Community College, or the Director of the Industrial Services Division, North Carolina Department of Community Colleges, Raleigh, North Carolina.

GENERAL ADULT EDUCATION

General Adult and Community Service classes and programs are offered through the Extension Division of Cleveland Community College to enable individuals to gain personal satisfaction and knowl-

edge through self-advancement. These programs include opportunities for intellectual growth, the development of creative skills or talents, the learning of hobby or leisure time activities, and the opportunity of gaining civic and cultural awareness.

TEACHERS' CERTIFICATE RENEWAL

Teachers' certificate renewal courses and workshops are provided by Cleveland Community College in cooperation with the local public school systems within the county.

The courses and workshops are initiated by the College or the public school systems based on interests and needs expressed by school teachers and officials. In the past, these have included such courses as Great Decisions, Psychology, Guitar, Drawing and Sketching, Anthropology, Computer Training, and media workshops.

When a need for a particular course has been determined, Cleveland Community College, working cooperatively with the public schools in-service directors, plans and organizes the class, scheduling it for a time convenient to the participants.

Teachers receive renewal credit based on course approval from the North Carolina Department of Public Instruction.

FOCUSED INDUSTRIAL TRAINING

The primary goal of the program is to provide a comprehensive training program capable of meeting the needs of the industries of Cleveland County. The College works jointly with industrial representatives to assess their needs and provides appropriate training to upgrade their employees' skill levels.

Working cooperatively with industry, the staff selects course content, decides on the length, time, and location for the course to be offered. Instructional personnel are selected for training courses on the basis of competence in the specific subject area to be taught.

The training is conducted on a competency based instructional mode. External and internal evaluation of trainee progress by the program staff and the trainee's employer is a cooperative venture.

COMPREHENSIVE EDUCATION PROJECT

The Comprehensive Education Project which is located at the correctional institute is structured toward meeting the academic, vocational, and social needs of selected medium custody inmates who plan to reside in the South Piedmont area when paroled.

Upon completion of the program, the inmates receive a certificate in the vocational areas of Electrical Installation and Maintenance (9 months), Welding (6 months), Residential Carpentry (9 months), Plumbing (6 months), Food Service Management, or Cooking and Baking (9 months). The inmates attend class 30 hours a week.

Related subjects are required in the areas of reading, math, and human relations. Preparation for the GED examination is also available with the test being administered monthly.

It is anticipated that each inmate who completes the Comprehensive Education Project will acquire the necessary vocational skills to obtain permanent employment under the work-release program and retain this employment upon his release.

CONTINUING EDUCATION

COMMUNITY SERVICE PROGRAMS

Algebra: A course designed to teach the basic fundamental concepts and operations of algebraic computations including grouping, factoring ratio and proportion, and quadratic equations. Application to practical problems will be stressed. 33 hours.

Anthropology: The Ascent of Man, a series of 13 outstanding films that dramatically portray the interrelations of science and the humanities throughout history, is used as a basis for this course. The main interest is on the cultural evolution of man from pre-historic times up to the present. 20 hours.

Auto Mechanics: General troubleshooting of the automobile engine, electrical system and fuel system including replacement of spark plugs, ignition points, condenser, rotor, distributor cap, coil, ignition, cables, and wires. Setting up of engine with instruments such as a dwell meter, timing light, volt and amp meter, vacuum gauge, and general carburetor repair such as fuel filter replacement and adjustment of automatic choke is also included. 33 hours.

Auto Tune-Ups: General troubleshooting of the automobile engine electrical system and fuel system including replacement of spark plugs, ignition points, condenser, rotor, distributor cap, coil, ignition, cables, and wires. Setting up of vacuum gauge and general carburetor repair such as fuel filter replacement and adjustment of automatic choke is also included. 33 hours.

Basketweaving: Students will learn the history and techniques of various basketweaving styles, such as: market baskets, key baskets, egg baskets, round baskets using a variety of weaving techniques and materials. 33 hours.

Business Mathematics: A study of mathematical solutions to business problems including graphical representation of business data and the concepts of various functions as tools for analyzing pertinent business data. 24 hours.

Cake Decorating: An ideal course for the homemaker who would like to learn the art and techniques of decorating cakes for all occasions. Instruction will include preparation and application of various icings, borders, writing, drawing, and making flowers for cakes. 33 hours.

Candy Making: Instruction in how to make professional looking candies will be stressed. Recipes, correct procedures, and use of candy thermometer will be covered. 33 hours.

Ceramics: A popular class where students learn of the information, finishing, and firing of creative pottery. Finishing processes will include pouring, cleaning the greenware, decorating, glazing, and firing for the finished product. 33 hours.

China Painting: A course in which various types of designs and flowers are applied to chinaware and tiles. Practice in painting and firing is included in the course. 33 hours.

Clothing Construction I: Designed for new sewer or anyone who wishes to brush up on basic sewing techniques. Time will be devoted to learning the necessary equipment for successful sewing, proper selection and fitting of pattern and materials; step by step construction of one or more garments; lectures, demonstrations, practical applications of sewing procedures; individual instruction in use of machines during class time. 33 hours.

Clothing Construction II: More detailed instruction for more complicated assembling of garments such as underlining, different sleeves, collars, pockets, trims, buttonholes, and other items. Fashion and styling will also receive attention in this class. 33 hours.

Copper Tooling: A fascinating craft class where students make beautiful and useful objects for the home. Simple tools are used for various patterns on copper and brass which are then used to make pictures, plaques, waste baskets, flower urns, etc. 30 hours.

Crewel Embroidery: The class will learn a variety of stitches with different types of threads; needlepoint, and cross stitching. Students are encouraged to create their own designs. 33 hours.

Crochet: A course in the basic principles and art of crocheting, including the actual construction of articles and designs from simple to complex. Students furnish their own materials. 33 hours.

Custom Sewing: An advanced course for those students who wish to progress beyond dressmaking. Students will make suits, coats, men's and ladies' sportswear, and other projects as desired by individual members of the class. 60 hours.

Decoupage and Repousse: An interesting and inexpensive leisure time activity involving painting, sanding, and finishing items such as table tops, ash trays, picture frames, and other similar items which can be used for decorative purposes in the home. 24 hours.

Drawing: The course includes one-minute gesture drawings, contour drawings, modelled drawings, and quick form studies. Media used are pencil, pen and ink, ink wash, crayon, and water colors. Perspective and drapery studies are included. 33 hours.

Effective Speaking: Theory and practice in the art of effective speaking. Instruction will center around methods of planning and presenting the talk. Class reactions will be used as a method of evaluation and emphasis placed on the dynamics of public speaking. Self-confidence, poise, creative thinking, personality development, and effective communications with others will be addressed. 20 hours.

Floral Design: A practical course related to actual arrangements of live and artificial flowers. Students learn uses of flowers, containers and accessories, design principles, color and texture, and arrangements for special occasions. 33 hours.

Genealogy/Local History (N.C.): This course has a two-fold purpose; to teach the mechanics of genealogy with opportunities to apply the lessons learned; and to teach the history of North Carolina with special emphasis on local history. Several field trips are included. 100 hours.

Holiday Decorations: (Arts and Crafts). An exciting class with emphasis on handcrafts and hobbies for home decorating and other occasions. Students will learn to make useful items from such things as bottles, cards, and numerous other scrap materials. 33 hours.

Income Tax Preparation: Instructions are offered in basic fundamentals of individual income tax preparation. Topics considered are gross income, deductions and exemptions, joint and separate returns, tax computations, and methods of reporting income. Both state and federal forms are covered in this class. 30 hours.

Interior Decorating: Primary attention will be given to art and practice of decorating. Emphasis will be given to choice and arrangement of furniture; color and how to use it; flooring surfaces and floor covering; window treatment with draperies and curtains. 33 hours.

Jewelry Making: Instruction will be given in the basics of good design and creativity in various types of jewelry making. The use of jewelry tools in sawing, filing, soldering, setting, etc., will be stressed. Students will be responsible for their own supplies and materials. 33 hours.

Knitting: Instruction will be given in the basic stitches; knitting language—its terms, definitions, symbols and abbreviations; pattern reading; knit tips. Each student is asked to complete a small project during the course. 33 hours.

Macrame: A popular and fascinating craft class using various knot-tying materials to make hanging basket holders and other useful objects and designs for the home. 33 hours.

Metric System: A basic course in the use of the Metric System. Conversion tables are used in the class in order that students may become familiar with metrical computations as compared to conventional methods. 24 hours.

Microwave Cooking: Basic instruction will be offered in the many functions of a microwave oven. The cooking of all types of food including vegetables, meats, and desserts will be covered. Proper utensils for microwave cooking will also be stressed. 33 hours.

Motorcycle Mechanics: This course is especially designed for those people interested in servicing their own motorcycle and other small engines. Students who complete this course will be able to service and repair their own motorcycle. 36 hours.

Music Theory: This course is designed for pianist, organists, and other musicians with no formal training in music theory. Course includes major and minor scales; major, minor and dominant seventh chords; elementary harmony; simple modulation, transposition of simple pieces; sight singing; and an investigation of rhythm. 20 hours.

Needlepoint: The student learns to do background stitches; a variety of novelty stitches; transfer of graphs and charts to blank needlepoint canvas, and

from that step to transfer on mesh canvas. Finally the student has learned to create a design to be worked in needlepoint for whatever purpose the student intends—upholstery material, draperies, framing, wall hanging, etc. 33 hours.

Nutrition and Weight Control: Training in selection of proper diet for best health, avoiding obesity and related disease, determining one's proper weight, how to achieve and maintain it. 18 hours.

Painting with Acrylics: Same as for oils with more emphasis on modern techniques in the use of the versatile material which is easy to handle, fast drying, waterproof, and easy to mix for different colors. Instruction will involve mixed media and various painting methods. 33 hours.

Photography: Introduces the student to fundamental factors influencing the quality of image captured in the photograph. Students may study lighting, the primary subject, the field of view, color, and camera techniques. 33 hours.

Picture Framing and Matting: A general course in introduction to picture framing and matting. The course will introduce students to proper tool selection, measuring, wood selection, mitering and selection, and proper mat cutting. 33 hours.

Porcelain: Advanced students will learn complete process of porcelain doll making as well as other porcelain items; pouring, cleaning greenware; cutting out eyes and insertion; painting dolls; assembling and wigging. Some dressing instruction. Heritage heirloom instruction. Can produce (3) three dolls in class. 33 hours.

Prepared Childbirth: This class prepares the prospective mother emotionally, intellectually, psychologically, and physically for childbirth. Together, both prospective parents are actively involved in the birth of their child. Instruction includes techniques of body building exercises, stretching and breathing exercising, and neuromuscular control (relaxation). 21 hours.

Psychology: The basic principles of psychology are explored and how they may be applied to practical problems of everyday life. The aim of the course is to help people get along better in school, jobs, and human relations. 33 hours.

Quilting: Instruction in the techniques of quilting which will include: patchwork, applique, shadow appliques, soft shading, lap quilting, making pillows, drafting patterns, and continuous bias binding. 33 hours.

Securities and Investments: Stocks, bonds, and mutual funds will be the central area of focus in this course. Discussions will include the operation of the stock exchanges, buying and selling procedures, analysis of stocks and bonds for investment purposes, and when to buy and sell. 33 hours.

Short Story Writing: This course will provide the beginning writer with an understanding of the basic concepts of the elements and structure of a short story. Content will include characterization, mood, perspective, plot, and use of symbolism. 24 hours.

Sign Language: Instruction is designed for the parents of deaf children and for others who come in contact with deaf people. Classes begin with finger spelling and continue through the more difficult signs. 33 hours.

Sketching: An interesting and basic class for the art student who wishes to learn more about drawing simple shapes, one and two-point perspective drawing, and shadowing. Practice exercises with various drawing materials will be used. 33 hours.

Small Engine Repair: Instruction in the techniques of two and four cycle engine repair including reconditioning, tune-ups, replacement of parts, and detection of engine trouble. 48 hours.

Sociology: A course designed to create a knowledge and awareness of the problems in society today and to fit the students for involvement in those problems that affect their personal lives. Information from other fields in the social sciences have a bearing on major social problems will be incorporated in the course. 33 hours.

Speed Reading: A program designed for the average adult reader who needs to improve overall reading efficiency including speed, comprehension, and flexibility. This course welcomes the supervisors and others in management positions who have much paper work and those jobs require much reading. 24 hours.

Stained Glass: The course is designed to teach all techniques in cutting and fitting stained glass in the making of lamps, planters, decorative ornaments, jewel boxes, pictures, etc. 33 hours.

Tole Painting: An interesting technique, rather than talent, where patterns of decorative design are painted on tin, wood, glass, and metal. Designs are stenciled on material and painted in acrylics or oils. The art of tole painting is the way the brush is held and turned to make details. 33 hours.

Upholstery: Instruction includes the techniques of general furniture upholstery, including webbing, springing, stuffing, trimming, sewing, restoring, repairing, mounting, and tying springs. Equipment is furnished but students supply their own materials and may work on their own furniture with direction and assistance from the instructor. 60 hours.

Water Colors: In this class art students will work with various materials and equipment, color mixing, using wet and dry paper, composition, and design. Other techniques will include watercolor tricks, inks, and calligraphy. 33 hours.

Woodworking: This course is designed to help the woodworking enthusiast in the use, care, and safe practice of basic hand and power tools. Considerable time will be spent in the shop in practical use of skills learned. Woodworking projects completed by the student may be retained for personal use. 45 hours.

CONTINUING EDUCATION

OCCUPATIONAL COURSE DESCRIPTIONS

Amateur Radio Operations: A course which deals with basic electronics and a working knowledge of Morse Code. Successful completion of the course prepares students for taking the FCC Amateur Radio Licensing examination. 45 hours.

Basic Horticulture: A course designed to familiarize participants with the fundamentals of soil fertility, the principles of attractive home landscaping, the characteristics of various ornamental plants suitable for home landscaping, vegetable gardening, plant maintenance, and small greenhouse structures. 20 hours.

Bookkeeping: A course dealing with methods of recording and reporting business records. Practical work is done involving business, individual, and family bookkeeping. 30 hours.

Bricklaying: Instruction will be geared to practical work in how to mix and spread mortar, lay bricks, and proper use of the masonry rule. Simple construction projects will constitute a large part of the course. 88 hours.

Cardiopulmonary Resuscitation: A special class dealing with the various techniques of cardiopulmonary resuscitation. 10 hours.

Child Care Credentials I & II: These courses are a credential which teachers, parents and providers can receive after completing a 66 clock hour class. The course contains basic information important to anyone caring for and educating young children. 66 hours.

Electrical Contractor License Renewal: A course designed to update electrical contractors on the new codes and provide the six hours of continuing education needed for annual license renewal. 6 hours.

Emergency Medical Technician (EMT): A more detailed course than standard first aid with emphasis on the development of skill in recognition of systems of illness and injuries and proper procedures of emergency care. Emphasis on demonstration and practice as a teaching method. Ten hours of in-hospital observations are included. 142 hours.

Emergency Medical Technician Intermediate (EMT-I): An EMT-I will learn to perform the following under the direction of a physician at a sponsor hospital: to insert an esophageal airway; establish peripheral venous access; obtain venous blood sample for laboratory analysis; administer medications on EMT-I formulary; and utilize advanced life support equipment on EMT-I performance list. 156 hours.

First Aid: This course is taught by an approved American Red Cross instructor and is open to anyone interested in learning how to care for the victims of an accident or illness. Topics covered include bandage application, use of tourniquets and temporary splints, care of eye and burn injuries, artificial respiration, and safe use and storage of medicines. Students completing the course are certified by the American Red Cross. 15 hours.

Funeral Service Training: An annual variety of topics relating to funeral service personnel to meet continuing education requirements of the North Carolina State Board of Mortuary Science. Each topic is of five hours duration.

General Contractor's Seminar: A course designed to help those wishing to take the North Carolina General Contractor's Exam. This course helps students to become familiar with the latest code revision and standard practices in construction. 33 hours.

Inservice Classes: Inservice classes are offered to various groups who are required to complete annual inservice training. Examples are electrical contractors, tanning bed, day care workers, nursing assistants, etc.

Medical Terminology: A course designed to build a workable medical vocabulary for office and hospital clerical personnel. Terminology commonly used in the medical setting will be presented. Hours of course flexible to needs.

Multimedia First Aid: A course covering the same topics but using American Red Cross films for demonstration followed by actual practice of the techniques by the students. 8 contact hours.

National Electric Code: This course is provided for those who wish to study the National Electric Code in preparation for the licensing examination. Instruction will include the latest code revisions, safety measures and standard practices in the wiring of single and multi-family dwellings, commercial establishments and industrial locations. 80 hours.

Notary Public: This 4-hour class is designed to prepare participants to be commissioned as a Notary Public with the State of North Carolina. Topics to be covered are requirements for collecting fees, general powers and limitations, oaths and affirmations, depositions, affidavits, and negotiable instruments. Participants must reside or work in the state of North Carolina, read and write English, and purchase the approved manual Notary Public Guidebook.

Nursing Assistant I: A program designed to give instruction and practice in basic bedside care of the sick, especially the hospitalized patient. Basic procedures such as bathing, bedmaking, taking vital signs, collecting specimens, feeding the patient, moving, lifting, and positioning the patient are included. The class consists of lectures and laboratory work in addition to some clinical practice in a local hospital. 120 hours.

Nursing Assistant II: This course prepares graduates to perform more complex skills such as infection control, elimination procedures, care of established ostomies, intravenous site care, and observation and maintenance of oxygen therapy. The course includes class, laboratory and clinical learning experiences. 160 Hours.

Office Practice: A course for all clerical personnel stressing techniques of letter writing, correct spelling, communication skills both oral and written, and proper telephone usage. Hours adjusted to needs of students.

Practical Welding: Students will be given basic practice in all types of welding procedures and flame-cutting methods which are associated with mechanical and farm repair work. Safety procedures are stressed throughout the course in the use of tools and equipment. 33 hours.

Recreational Therapy: A course using modifications and adaptations in recreation and physical education activities for nursing home and handicapped persons. A combination of physical activities and arts and crafts is used in order to bring about a well-rounded adjustment. Class hours flexible according to need.

BASIC SKILLS PROGRAMS

The Basic Skills Programs provide a variety of educational experiences for adults by guiding them in the development of individual strategies to improve the necessary skills for coping with change in today's complex society.

Striving to meet the spectrum of needs of the College and the community, the staff of the Basic Skills Programs provides flexibility within each program. The goal of the department is to assist participants as they strive to become independent learners and productive citizens.

Educational, cultural, economic, and social needs are considered when students apply for various programs. Class sites are on campus and at various locations in Cleveland County.

Following are the programs and services available through the Basic Skills Programs:

Adult High School Diploma Program
Adult Basic Education Program
G.E.D. Preparatory Program
Learning Lab Programs
Human Resources Development Program
English As A Second Language
Compensatory Education Program

Adults, eighteen years of age or older, desiring to make application for any of the Basic Skills Programs should contact the appropriate departments for additional information.

ADULT BASIC EDUCATION PROGRAM

(Grades 1-8)

Adults who have less than a high school education may enroll in the Adult Basic Education Program. The program includes instruction in reading, writing, mathematics, social studies, science, and health education. In each of these areas, instruction is designed to assist students in meeting adult responsibilities by improving fundamental skills. Learning opportunities range from instruction for those who have received no formal education to those who have received as much as eight years of instruction.

Classes are organized into two groups. The first group is for those who need individual instructional guidance in basic reading and writing skills. In the second group, instruction is offered in reading and writing at a more advanced level than that of group one. The second group also receives instruction in basic science and social studies.

With successful completion of the subject matter taught in group two, the student may then advance into the high school program.

Students may enter ABE classes at any time. However, the staff recommends that individuals enter during the registration period at the

beginning of the each quarter. In order to take advantage of the complete program being offered, the College encourages students to maintain attendance in these classes over a period of several school quarters.

There is no fee for ABE classes or ABE books and materials. Classes are held on campus and at various locations throughout the county.

ADULT HIGH SCHOOL DIPLOMA PROGRAM

(Grades 9-12)

The Adult High School Program is a cooperative program between the College and the local school systems. It is available to Cleveland County adults who have passed the eighth grade or the Eighth Grade Equivalent Test and wish to complete the high school program. The successful completion of twenty units and a passing score on the North Carolina Competency Test are required for graduation from the Adult High School Program. Any previously earned high school units are accepted toward the total requirements. The program is free, although there may be a small fee for textbooks. A graduation fee is charged to each student completing the high school requirements. The graduate will be issued a diploma or certificate from the school district in which he or she lives.

Adult High School students may arrange a schedule to complete high school through the Learning Lab program or the classroom program on campus, or at various locations throughout the county. Interested persons may enroll in the Adult High School Program at any time.

Requirements for graduation include the following:

English . . . . . .4 units
Social Studies . . . . . .3 units
Mathematics . . . . . .3 units
Science . . . . . .3 units
Electives . . . . . .7 units

N.C. Competency Test (Passing Scores)

Upon completion of the Adult High School Program, graduates may enroll in one of the curriculum programs at Cleveland Community College or some other college.

GENERAL EDUCATIONAL DEVELOPMENT (GED) PREPARATORY

The GED (high school equivalency) Preparatory Program is designed for adults preparing to take the GED examination. After the administration of the required Pre-GED examination, each student's academic skills are evaluated to determine specific instructional needs. The student primarily studies in the areas of English, reading, and math. After achieving specific skills and knowledge, the student is prepared to take the GED examination.

LEARNING LAB PROGRAM

The Learning Lab, located on the campus, includes free high school programs in addition to the free General Interest Programs. General Interest Programs are available for adults who have already completed high school or college work but who want to continue their educational development in a free non-credit curriculum.

For their own self-improvement and personal interest, many community residents choose self-instructional courses such as reading improvement, math, or English.

Because there are no organized classes in the Learning Lab, the staff will assist the student in arranging a study schedule to meet his or her needs. The student may attend the hours and days which are most convenient for him or her. The Learning Lab is open from 8:00 AM to 10:00 PM, Monday through Thursday, and 8:00 AM to 4:00 PM on Friday.

HUMAN RESOURCES DEVELOPMENT PROGRAM

The Human Resources Development Program provides prevocational training and counseling for unemployed and underemployed adults. Upon graduation, participants receive assistance with job placement or opportunities for skills training.

The goal of the Human Resources Development Program is to prepare persons for successful performance in the work force. The primary objective of the program is to reduce unemployment and underemployment by making it possible for the participants to become and remain productive employees.

Students in the Human Resources Department Program enroll for approximately eight weeks of instruction. The curriculum includes an orientation to the workplace, instruction in reading, writing, arithmetic skills, and instruction in human relations, which are essential to securing and maintaining employment.

Classes are held on campus from 8:30 AM to 12:30 PM, Monday through Friday.

ENGLISH AS A SECOND LANGUAGE

English language for the foreign born is taught as written English and as conversational English. Classes are free of charge to those seeking English language skills and citizenship instruction. Classes are available for refugees, migrant workers, and other aliens.

COMPENSATORY EDUCATION PROGRAMS

The Compensatory Education Program provides classes in basic education, socialization, and community living skills for the adult mentally retarded.

This program is a cooperative effort through Cleveland County Mental Health, Cleveland Vocational Industries, Inc., Cleveland Community College, and other service provider agencies.

Certification of mental retardation is required prior to enrollment.

SMALL BUSINESS CENTER

The Small Business Center of Cleveland Community College provides workshops, seminars, counseling, information and referral services for small business owners and operators in Cleveland County. The Center's objectives are:

* To provide accessible and flexible training programs for small business operators including workshops, seminars, and continuing education courses.
* To provide a resource center of print and non-print reference materials for use by small business operators and employees.
* To offer special assistance to small business owners and would-be owners via a network of referral services to the chambers of commerce banks, the Small Business Administration, and other agencies such as the Department of Commerce.
* To offer consultative services on a direct one-to-one basis.

A variety of seminars have been presented including Managing Customer Complaints, Time Management, Effective Selling, Low Cost Advertising, Telephone Professionalism, and Tax Reform. For more information call the Small Business Center Director at 484-4040.

LIBRARY AND AUDIOVISUAL SERVICES

Monday - Thursday — 7:30 am - 10:00 pm
Friday — 7:30 am - 4:00 pm
Quarter break and holidays as posted

The Cleveland Community College Library is a multimedia facility designed to support the total educational program of the college and to enhance the teaching/learning experience for students, faculty, administration and community patrons. The library contributes to the educational program of the college by collecting, making readily available and assisting in the use of materials needed by its users.

The collection includes print, video, sound recording and multimedia resources with access provided through an automated cataloging, circulation and public access system. The library subscribes to approximately 300 periodicals, and also provides various electronic indexes and databases for individual research as well as assistance with the use of on-line databases. Computerized interlibrary loan services are available to expedite the location and delivery of materials from other locations.

The audiovisual services of the library performs many support functions for faculty and staff, including lamination, production of overhead transparencies, licensed off-air taping of educational telecourses, teleconferences and resource programing. This department maintains up-to-date equipment, including portable equipment for classroom use and a closed circuit TV system available in sixty classrooms, the library and various offices and lobbies on the campus.

AV services is also responsible for the operation of Vision Cable of Shelby's community access Channel which provides capabilities for delivery of educational, cultural and public service programming to cable subscribers throughout Cleveland County.

A friendly, competent staff is always available to assist patrons with their library and audiovisual needs.

CLEVELAND COMMUNITY COLLEGE

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Dr. L. Steve Thornburg, Secretary

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Servene Budd
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PERSONNEL OF THE COLLEGE (FULL-TIME)

OFFICE OF THE PRESIDENT

President . . . . . .L. Steve Thornburg (1990)
B.A.J., University of North Carolina at Chapel Hill
M.P.A., University of North Carolina at Chapel Hill
Ed.D., North Carolina State University in Raleigh

Secretary, President's Office . . . . . .Pat Anderson (1981)
Appalachian State University
Cleveland Technical College
University of South Carolina at Spartanburg

GENERAL ADMINISTRATION

Assistant to the President, Academic Enrichment
Executive Director, Cleveland Community
College Foundation . . . . . .Dorothy P. McIntyre (1970)
A.A., Gardner-Webb College
B.A., Limestone College
M.A., University of North Carolina at Charlotte
Ed.S., Appalachian State University
CAGS, Ed.D., Virginia Polytechnic Institute and State University

Secretary, Academic Enrichment . . . . . .Severne Budd (1992)
B.S., Livingstone College

Director of Institutional Effectiveness and
Personnel Officer . . . . . .Hugh Walker, Jr. (1973)
B.S., North Carolina State University
M.A.Ed., Western Carolina University
Advanced Study, Appalachian State University
A.A.S., Cleveland Technical College

System Administrator . . . . . .Phyllis Haynes (1985)
A.A.S., Cleveland Community College

Network Administrator . . . . . .Robin Dyer (1994)
A.A.S., Cleveland Community College
B.S., Gardner Webb University

BUSINESS AFFAIRS

Vice President, Finance and
Administrative Services . . . . . .James E. Greene (1971)
A.A., Gardner-Webb College
B.S., Limestone College
M.A., Appalachian State University

Comptroller/Office Manager . . . . . .Jane Webb (1965)
Southern Business College
A.A.S., Cleveland Community College

Accounting Technican . . . . . .Susan Greer (1994)
A.A.S., Cleveland Community College

Director of Campus Security . . . . . .Clyde Q. Adams (1994)
24 years experience with Shelby Police Department

Purchasing Officer . . . . . .Kay Allen (1979)
A.A.S., Cleveland Community College
B.S., Limestone College

College Store Manager . . . . . .Lydia McSwain (1986)
A.A.S., Cleveland Community College

Printshop Technician . . . . . .Danny Dedmon (1986)
A.G.E., Cleveland Technical College
B.A., Limestone College
Additional Study at Appalachian State University

Receptionist . . . . . .Pat Eaker (1995)

Cashier / Secretary, Business Office . . . . . .Donna Griggs (1995)
A.A.S., Cleveland Community College

Secretary / Purchasing Assistant . . . . . .Lisa Hamby (1995)
A.A.S., Cleveland Community College

Evening Receptionist . . . . . .Billie Jenks (1977)
Shelby Business College
A.A.S., Cleveland Technical College
Gardner-Webb College

INDUSTRY AND COMMUNITY SERVICE

Vice President of Industry and
Community Service . . . . . .Joe M. Hamrick (1975)
B.S., North Carolina State University
M.A., Appalachian State University
Doctoral Studies, North Carolina State University

Dean of Continuing Education . . . . . .David M. (Pete) Stamey (1973)
B.S., Appalachian State University
M.A., Appalachian State University
Ed.S., Western Carolina University

Director of Small Business Center . . . . . .Barbara Greene (1989)
B.S., Gardner-Webb College
M.A., Gardner-Webb College

Coordinator of Prison Programs . . . . . .Rosaline Hunt (1976)
B.S., Fayetteville State University
Western Carolina University
M.A., Appalachian State University
Ed.S., Appalachian State University

GED Chief Examiner . . . . . .William (Bo) Jones (1973)
A.A.S., Cleveland Technical College
B.S., Gardner-Webb College

Dean of Basic Skills Programs . . . . . .Rebecca K. Cook (1970)
A.A., Gardner-Webb College
B.A., Appalachian State University
M.Ed., University of North Carolina at Charlotte

Basic Skills Records Coordinator . . . . . .Jan Neal (1994)
B.S., Gardner-Webb University

Recruiter/Coordinator, Basic Skills Programs . . . .Carolyn Petty (1979)
A.A.S., Cleveland Technical College
North Carolina A and T University
Limestone College
B.S., Gardner-Webb College

Recruiter/Coordinator, Basic Skills Programs . . . . . .Ann Martin (1994)
A.A., Virginia Intermont
B.S., Appalachian State University

Basic Skills Learning Lab and
Testing Coordinator . . . . . .W. Cobern Pruitt (1976)
B.S., Western Carolina University
M.A., Western Carolina University
Ed.S., Western Carolina University
Doctoral Studies, University of North Carolina at Greensboro

Instructor, Basic Skills Program . . . . . .Nancy Hopper (1976)
A.A.S., Cleveland Technical College
B.S., Gardner-Webb College
Queens College
M.A., Appalachian State University

Coordinator, HRD Program . . . . . .Joyce Hosch (1979)
A.A.S., Cleveland Technical College
B.S., Gardner-Webb College

HRD Recruiter/Instructor . . . . . .Carolyn Smith (1976)
A.A.S., Cleveland Technical College
B.S., Gardner-Webb University

Office Manager and Fire-Rescue
Coordinator . . . . . .Nancy W. Carpenter (1981)
Jr. Secretarial Degree, Kings College
A.A.S., Cleveland Community College

Secretary, Continuing Education . . . . . .Susan Martin (1990)
Western Carolina University
A.A.S., Cleveland Community College

Secretary, Small Business Center and
Continuing Education . . . . . .Karen Patterson (1994)
A.A.S., Cleveland Community College

Secretary, Basic Skills Programs . . . . . .Deller Sims (1987)
A.A.S., Cleveland Community College
Gardner-Webb College

ACADEMIC PROGRAMS

Vice President of
Academic Programs . . . . . .Ronald Wright (1973)
A.A., Gardner-Webb College
B.A., Gardner-Webb College
M.A., Western Carolina University
Ph.D., University of South Carolina
Additional Studies, Appalachian State University

Dean of Business Technologies . . . . . .Madge Wray (1971)
B.S., North Carolina A and T University
M.A., Winthrop College

Dean of Vocational and
Engineering Technologies . . . . . .Gene C. Cox (1973)
B.S., Western Carolina University
M.A., Gardner-Webb College

Reference/Public Service Librarian . . . . . .Nettie Washington (1980)
B.S., Winston-Salem State University
M.L.S., North Carolina Central University
Appalachian State University

Technical Service Librarian . . . . . .Barbara McKibbin (1991)
B.A., Gardner-Webb College
M.S.L.S., University of North Carolina at Chapel Hill

Director of Academic Support Center . . . . . .Renee Allison (1983)
B.S., Appalachian State University
M.A., Appalachian State University
University of North Carolina at Charlotte

Coordinator, Placement Testing and
Career Center . . . . . .Jana Pruett (1992)
B.S., Appalachian State University

Director of Cable Access and Communications
Technology Instructor . . . . . .Shellie Hamrick-White (1989)
B.A., Gardner-Webb College

Library Technician . . . . . .Bruce Wilson (1995)
B.A., Gardner-Webb College

Library Technician . . . . . .Shirley Rodriguez (1976)
A.A.S., Cleveland Technical College
B.S., Limestone College

Coordinator of Audiovisual Services . . . . . .Danny Morton (1986)
A.A., Isothermal Community College
University of North Carolina at Charlotte
A.A.S., Cleveland Technical College

Office Manager / Academic Programs . . . . . .Lee Bryant (1976)
A.A.S., Cleveland Community College
A.G.E., Cleveland Community College

Secretary, Academic Programs . . . . . .Phyllis Champion (1987)
A.A.S., Cleveland Community College

Secretary, Vocational and
Engineering Technologies . . . . . .Beverly Ponder (1973)
Gardner-Webb College
A.S., Kings College

STUDENT SERVICES

Vice President for Student Services . . . . . .Sandra Hardin (1970)
B.B.A., University of Houston
M.A.Ed., Western Carolina University

Dean of Enrollment Management . . . . . .LouAnn Bridges (1976)
A.A.S., Cleveland Technical College
B.S., Gardner-Webb College
M.A., Gardner-Webb College
University of South Carolina at Spartanburg

Director of Financial Aid and Veterans Affairs . . . . . .Alan Price (1976)
B.S., Western Carolina University
M.A., Appalachian State University

Director of Admissions . . . . . .Caroline Moore (1991)
B.A., East Carolina University

Admissions Counselor . . . . . .Michelle Wray (1995)
B.A., University of North Carolina at Chapel Hill

Public Information Officer . . . . . .Chris Nanney (1993)
B.S., Appalachian State University

Secretary, Student Services . . . . . .Jennifer Gold (1995)
A.A.S., Cleveland Community College

Secretary, Financial Aid . . . . . .Sherri Jackson (1994)
Secretarial Diploma, Kings College

Secretary, Student Services . . . . . .Audrea Jimson (1993)
Cleveland Community College

Secretary, Student Services . . . . . .Shaunda Leonhardt (1995)
A.A.S., Cleveland Community College

Applications/Transcripts Coordinator . . . . . .Suzanne Studioso (1992)
A.A.S., Cleveland Community College

HOUSEKEEPING AND MAINTENANCE STAFF

Director of Physical Plant . . . . . .Gene Lail (1993)
Assistant Director of Physical Plant . . . . . .Danny Moore (1993)
A.A.S., Cleveland Community College

Maintenance . . . . . .James Farris (1995)
Maintenance . . . . . .Bob Ford (1994)
Maintenance . . . . . .Chris Swink (1994)

Housekeeper . . . . . .Dorothy Linda Black (1977)
Housekeeper . . . . . .Jessie J. Lott (1975)
Housekeeper . . . . . .Nancy Mintz (1995)
Housekeeper . . . . . .Barbara Smarr (1988)
Housekeeper . . . . . .Dorothy Surratt (1976)
Housekeeper . . . . . .Lucille Wilson (1992)
Housekeeper . . . . . .Patricia Wilson (1976)

FACULTY

Greg Bolich (1993) . . . . . .Instructor-Psychology and Religion
B.A., Seattle Pacific University
M.C.M., Seattle Pacific University
M.A., Western Evangelical Seminary
M.Div., Western Evangelical Seminary
Ph.D., Gonzaga University
Ph.D., The Union Institute

Hal Bryant (1975) . . . . . .Instructor-Art
B.A., Gardner-Webb College
M.A., University of South Carolina at Columbia

Pam Collins (1993) . . .Instructor-Microcomputer Systems Technology
B.S., East Carolina University

Joe Collum (1992) . . . . . .Instructor-Plumbing
Cleveland Community College
10 years experience in construction

Tom Cook (1990) . . . . . .Program Coordinator-A/C, Heating and Refrigeration
20 years Electronics Technician in Air Force
Diplomas in Air Conditioning/Refrigeration,
Electrical Installation and Maintenance
Cleveland Technical Institute
North Carolina State University

Joanne Cox (1991) . . . . . .Instructor-Chemistry
B.A., Shippensburg State College
M.A., Shippensburg State College

Lisa J. Eppinette (1995) . . . . . .Instructor, Associate Degree Nursing
B.S.N., Northeast Louisiana University

Susan Findlay (1994) . . . . . .Program Coordinator-Early Childhood
B.S., Virginia Polytechnic Institute and State University
M.A., Gardner-Webb University

Ray Fisher (1977) . . . . . .Program Coordinator-Electrical Installation
A.A., Gaston College
B.S., Western Carolina University

James Fite (1975) . . . . . .Instructor-Biology
B.S., Appalachian State University
M.A., Appalachian State University
Indiana State University, University of South Carolina
University of North Colorado

Jean Francis (1971) . . . . . .Instructor-Psychology
A.A.S., Cleveland Technical College
B.S., Limestone College
M.A., University of South Carolina at Spartanburg
University of North Carolina at Charlotte

Woodrow Glenn (1976) . . . . . .Instructor-Business Administration
B.S., Gardner-Webb College
Western Carolina University
M.A., Appalachian State University

Sherry Hamrick (1993) . . . . . .Instructor-Practical Nurse Education
B.S.N., University of North Carolina at Charlotte

Irene Henline (1995) . . . . . .Instructor, Associate Degree Nursing
B.S.N., Lenior Rhyne College
M.S.N., University of North Carolina at Greensboro

Julie Holt (1992) . . . . . .Instructor-Accounting
B.S., East Tennessee State University
M.A., East Tennessee State University

Katherine Jones (1975) . . . . . .Department Head-
Practical Nurse Education
A.A., Gardner-Webb College
R.N., Rex Hospital School of Nursing
B.S.N., North Carolina Wesleyan College
M.S.N., East Carolina University

Jody Ledford (1989) . .Instructor-Microcomputer Systems Technology
B.S., Gardner-Webb College
M.A., Gardner-Webb College

Doug Lovelace (1993) . . . . . .Instructor-Operations Management
B.S., Auburn University
M.B.A., University of Richmond

Wilbur McBride (1975) . . . . . .Instructor-Physics and Mathematics
B.A., Wofford College
M.A.Ed., University of North Carolina at Chapel Hill
University of Arkansas, University of Michigan,
University of Kansas, New Mexico State University,
University of North Carolina at Chapel Hill

Fred McFarland (1970) . . . . . .Instructor-Accounting
A.A., Gardner-Webb College
B.A., Carson-Newman College
M.A., Appalachian State University

Mike McSwain (1983) . .Instructor-Electronics Engineering Technology
A.A.S., United Electronics Institute
B.S., Western Carolina University

Joyce Meade (1973) . . . . .Department Head-Business Administration, Secretarial, and Fashion
B.S., University of North Carolina at Greensboro
M.A., Winthrop College

Jean Mitchell (1976) . . . . . .Instructor-Secretarial Science
B.S., North Carolina Central University
M.A., Appalachian State University

Hilda Moore (1991) . . . . . .Instructor-Spanish
B.A., Gardner-Webb College
M.A.T., Appalachian State University

Starr Morrow (1992) . . . . . .Instructor-History
A.A., Isothermal Community College
B.A., University of North Carolina at Charlotte
M.A., University of North Carolina at Charlotte
Doctoral Studies, University of South Carolina at Columbia

Claman Parker (1989) . . . . . .Instructor-Carpentry
10 years experience in carpentry

Becky Parrish-Sain (1990) . . . . . .Program Coordinator-Fashion Merchandising and Retail Marketing
A.A.S., Cleveland Technical College
B.S., Winthrop College

Frank Polk (1992) . . . . . .Program Coordinator-Criminal Justice
B.A., Appalachian State University
24 years experience in the U.S. Army Special Forces

Frank Pullen (1971) . . . . . .Instructor-Health and Physical Education
B.S., North Carolina A and T University
M.A., University of Rhode Island
Rhode Island College
Appalachian State University

Robert Putnam (1984) . . . . . .Instructor-Electrical Installation and Maintenance
North Carolina Vocational Textile School
22 years electrical experience
B.S., Western Carolina University

Roger Randall (1979) . . . . . .Program Coordinator-Auto Body
National Institute Automotive Service Excellence Certification
21 years experience in automotive service
B.S., Western Carolina University

Phil Reid (1993) . . . . . .Instructor-Microcomputer Systems Technology
B.S., Gardner-Webb University

Charles Reynolds (1982) . . . . . .Instructor-English
B.A., Williams College
M.A., University of Chicago
Ph.D., University of Nebraska
Northwestern University
University of California at Berkeley
Rhode Island School of Design

Maxine Romney (1976) . . . . . .Instructor-Business Administration
B.B.A., City University of New York
M.Ed., Northeastern University

Linda Ross (1978) . . . . . .Instructor-Business Administration
L.P.N Diploma, A.A.S., Cleveland Technical College
B.A., Limestone College
M.S., North Carolina A and T University
North Carolina State University
Winthrop College

JoAnn Schilling (1977) . . . . .Department Head-Radiologic Technology
R.T., Lewis-Gale Hospital School of Radiologic Technology
B.G.S., University of South Carolina
M.A.Ed., Western Carolina University
Ed.S., Appalachian State University

Danny Scruggs (1983) . . . . . .Instructor-Microcomputer Systems Technology
B.S., Appalachian State University
M.A., Appalachian State University
Cleveland Technical College

Joseph M. Southards (1981) . . . . . .Department Head-Mathematics and Science
B.S., Gardner-Webb College
M.A., Appalachian State University

Barbara Taylor (1974) . . . . . .Department Head-Liberal Arts
B.S., Mississippi University for Women
M.A., Appalachian State University

Bob Wells (1981) . . . . . .Program Coordinator-Machinist
Military training school
26 years experience as machinist
A.G.E., Cleveland Technical College
B.S., Western Carolina University

Tom Whitaker (1983) . . . . . .Instructor-Welding
Welding Diploma, Isothermal Community College
Machine Shop Diploma, Isothermal Community College

Tim Wisher (1994) . . . . . .Program Coordinator-Welding
Certificate-Welding, Cleveland Community College
Certificate-Blueprinting, Spartanburg Technical College
Certificate-Confined Space Entries, Sanders Brothers

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