Pitt Community College

GENERAL CATALOG
1984-1986

GREENVILLE,
NORTH CAROLINA

PITT COMMUNITY COLLEGE

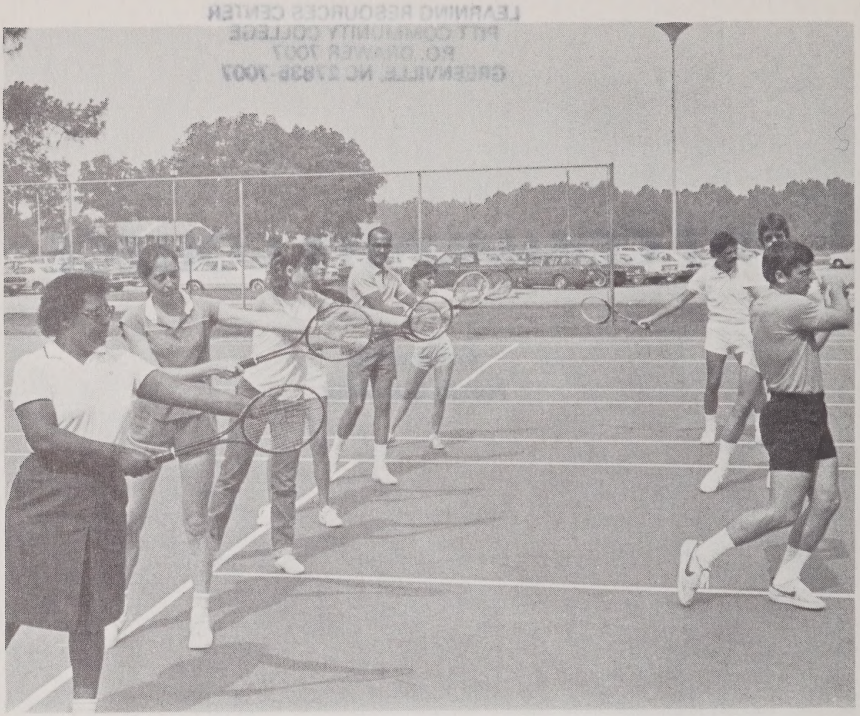
Greenville
North Carolina

Recognized and Approved By
North Carolina State Board of Community Colleges
North Carolina State Board of Nursing
Radiologic Technology Joint Review Committee
of the American Medical Association

Accredited by
Southern Association of Colleges and Schools

CATALOG OF COURSES
DAY AND EVENING PROGRAMS

Volume XII
1984-86



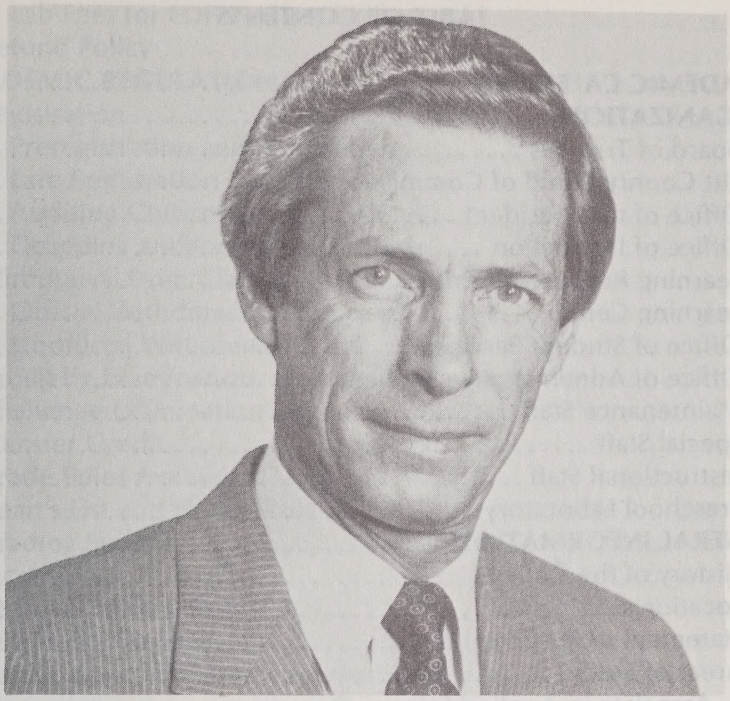
Pitt Community College publishes this catalog to provide students and other interested persons with information about the College and its programs.

The provisions of the catalog are not to be regarded as an irrevocable contract between students and Pitt Community College. The College reserves the right to change any provisions, requirements, or schedules at any time or to add or withdraw courses or program offerings. Every effort will be made to minimize the inconvenience such changes create for students.

Students having questions not answered in this publication may secure additional information from the Dean of Students, Pitt Community College, P.O. Drawer 7007, Greenville, North Carolina 27835-7007; telephone: (919) 756-3130.

It is the policy of Pitt Community not to discriminate against any person on the basis of race, color, handicap, sex, religion, age, or national origin in the recruitment and admission of students; the recruitment, employment, training, and promotion of faculty and staff; and the operation of any of its programs and activities, as specified by federal laws and regulations.

Pitt Community College is an equal opportunity/affirmative action institution.



PRESIDENT'S MESSAGE

Welcome to Pitt Community College. We are delighted that you are interested in our College and look forward to serving you. Our wide range of programs and courses, designed with learning experiences to provide a practical education, and support services, will assist you in achieving success in your chosen career.

This catalog provides you with a detailed description of the College's requirements, procedures, and offerings. What it cannot convey, however, is the satisfaction that comes from attending Pitt Community College where the staff and faculty have a genuine concern for the welfare and future success of its students. The opportunity is here for you. I urge you to take full advantage of the College's total resources in the development of your skills and in your chosen field.

Charles E. Russell

Dr. Charles E. Russell,
President

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Day Classes ..... Monday thru Friday, April 29 thru May 3
Preregistration and Prepayment for Summer Quarter:
Evening Classes ..... Monday & Thursday, April 29 & May 2
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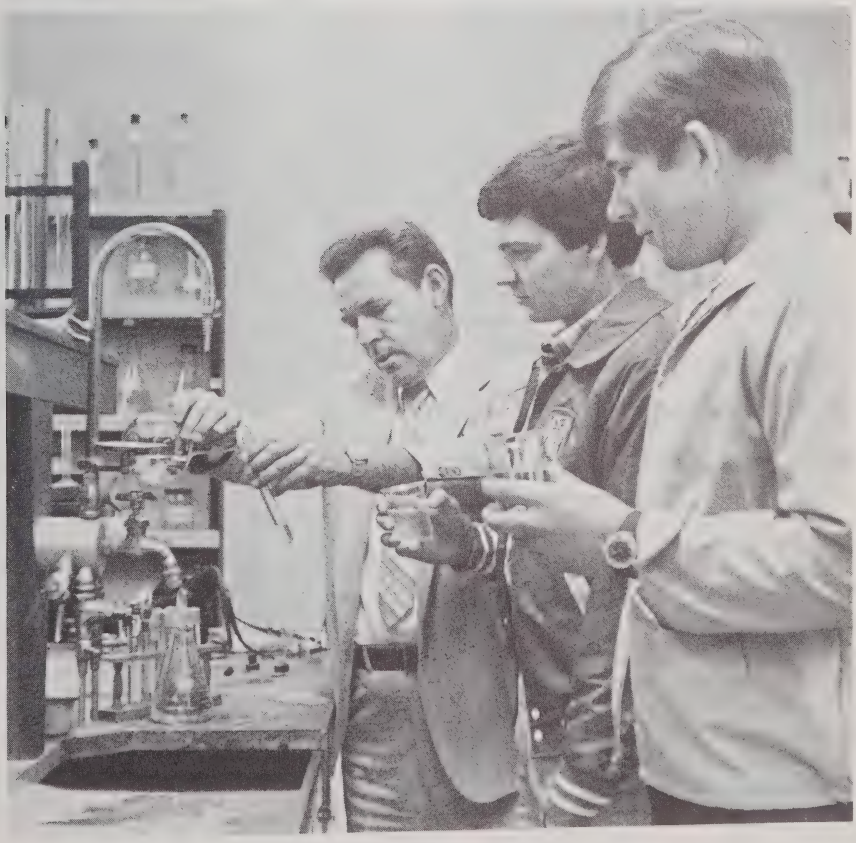

PITT COMMUNITY COLLEGE
ACADEMIC CALENDAR 1985-86
(TENTATIVE)

FALL QUARTER

Faculty Orientation and Registration:
Day and Evening ..... Thursday, September 5
Registration: Day Classes ..... Friday, September 6
Day and Evening Classes and Drop/Add Begin ..... Monday, September 9
Last Day and Evening to Drop/Add ..... Wednesday, September 11
Last Day to Officially Withdraw
Without Valid Reason (See Catalog) ..... Friday, October 4
Preregistration and Prepayment for Winter Quarter:
Day Classes ..... Monday thru Friday, October 28 thru November 1
Preregistration and Prepayment for Winter Quarter:
Evening Classes ..... Monday & Thursday, October 28 & 31
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WINTER QUARTER

Registration: Day and Evening ..... Monday, December 2
Day and Evening Classes and Drop/Add Begin ..... Thursday, December 3
Last Day and Evening to Drop/Add ..... Thursday, December 5
First Day of Christmas Holidays ..... Monday, December 23
Classes Begin After Christmas Holidays ..... Thursday, January 2
Last Day to Officially Withdraw
Without Valid Reason (See Catalog) ..... Thursday, January 9
Preregistration and Prepayment for Spring Quarter:
Day Classes ..... Monday thru Friday, February 3 thru 7
Preregistration and Prepayment for Spring Quarter:
Evening Classes ..... Monday & Thursday, February 3 & 6
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Last Day to Remove Incompletes ..... Thursday, February 6
Last Day of Classes ..... Thursday, February 27

SPRING QUARTER

Registration: Day and Evening ..... Tuesday, March 4
Day and Evening Classes and Drop/Add Begin ..... Wednesday, March 5
Last Evening to Drop/Add ..... Thursday, March 6
Last Day to Drop/Add ..... Friday, March 7
Easter Holiday ..... Friday, March 28
Easter Holiday ..... Monday, March 31
Last Day to Officially Withdraw
Without Valid Reason (See Catalog) ..... Thursday, April 3
Preregistration and Prepayment for Summer Quarter:
Day Classes ..... Monday thru Friday, April 28 thru May 2
Preregistration and Prepayment for Summer Quarter:
Evening Classes ..... Monday & Thursday, April 28 & May 1
Last Day for Credit By Exam ..... Thursday, May 1
Last Day to Remove Incompletes ..... Thursday, May 1
Last Day of Classes ..... Thursday, May 22
Graduation ..... Friday, May 23

SUMMER QUARTER

Registration Summer Quarter and
First Summer Session: Day and Evening ..... Monday, June 2
Day and Evening Classes and Drop/Add Begin ..... Tuesday, June 3
Last Day and Evening to Drop/Add ..... Thursday, June 5
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Last Day for Credit By Exam ..... Tuesday, August 5
Last Day to Remove Incompletes ..... Tuesday, August 5
Preregistration and Prepayment for Fall Quarter:
Day Classes ..... Monday thru Friday, August 4 thru 8
Preregistration and Prepayment for Fall Quarter:
Evening Classes ..... Monday & Thursday, August 4 & 7
Last Day of Classes ..... Tuesday, August 26
Graduation ..... Wednesday, August 27

ORGANIZATION

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Carolyn S. Smith, M.L.S. ..... Librarian and Coordinator of Library Services
John L. Griffin, B.F.A. ..... Instructional Designer and Media Production Specialist
Jane A. Smith, B.S. ..... Librarian
Cecilia M. Boklage, M.L.S. ..... Librarian
Mary G. Tugwell, M.L.S. ..... Librarian
Bruce Dolin ..... Audiovisual Equipment Technician
Rita B. Harris, A.A.S. ..... LRC Acquisitionist/Bookkeeper and Secretary to the Assistant Dean of Instruction for Learning Resources, and Word Processor Operator
Mary K. Godley, A.A.S. ..... LRC Technical Assistant for Library Services
Elizabeth G. Hansen, B.A. ..... LRC Technical Assistant for Audiovisual Services
Lynette A. Whichard ..... LRC Technical Assistant

LEARNING CENTER

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Sidney M. Posey, A.A.S. ..... Assistant Learning Center Coordinator
Rudy Lloyd, A.A.A. ..... Assistant Learning Center Coordinator

OFFICE OF STUDENT SERVICES

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Sylvia Corey, A.A.S. ..... Director of Admissions and Records
James O. Deans, M.A. ..... Counselor
Timothy Edmondson, A.A.S. ..... Computer Programmer
Yvonne George, M.S. ..... Counselor
Kathy Kinlaw, B.S. ..... Assistant Registrar
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Nancy Taylor ..... Financial Aid Officer
Linda Wall, M.A.Ed. ..... Counselor
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Hal Smith, M.A.Ed. ..... Recruiter/Counselor
Marietta Williams, A.A.S. ..... Data Processing Technician
Carlettie Campbell, A.A.S. ..... Secretary, Counselors
Sandra B. Hudson, Diploma ..... Secretary, Director of Admissions and Records
Jean King ..... Secretary, Dean of Students
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Rudy Lloyd, A.A.S. ..... Veterans Affairs Officer

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Susan Counterman, A.A.S. ..... Computer Operator
Byron Dickens, B.S. ..... Bookstore Manager
Jenny B. Edwards, A.A.S. ..... Accountant
Connie S. Harrell, A.A.S. ..... Comptroller
Judy Harris ..... Secretary, Bookstore
Marvin B. Lewis ..... Equipment and Inventory Control Officer
Jewel L. Lloyd, A.A.S. ..... Bookstore Clerk
Janice B. McGowan, B.S. ..... Accountant
Alberta M. Moye ..... Secretary, Dean of Administrative Services
Rudy Ross, A.A.S. ..... Mail Clerk and Maintenance
Brenda I. Smith, A.A.S. ..... Graphic Arts Technician
Brenda W. Smith, A.A.S. ..... Accountant
Paul Suggs, Diploma ..... Graphic Arts Technician
Helen J. Vandiford ..... Accountant

MAINTENANCE STAFF

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Ella Mae Barnhill ..... Night Custodial Supervisor
Owen Burney ..... Maintenance Engineer

David L. Carmon ..... Custodian
Delmar Cradic ..... Custodian
Albert L. Crandell ..... Custodian
Terry Green ..... Grounds Keeper
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Eddie Roach ..... Custodian
James Wrenn ..... Custodian

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Charles M. Dickens, M.A. ..... Coordinator of Human Resources Development Program
A. J. Tyson, B.A. ..... Instructor, Human Resources Development Program
Barfield, Alphasine C. ..... Secretary, HRD
Carolyn H. Stephenson, A.A.S. ..... Secretary, TRIO

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J. Sam Arnett, M.A. ..... Architectural Drafting
Sally A. Barnaby, B.S.N. ..... Nursing Education
Frances T. Bennett, B.S.N. ..... Nursing Education
*William Roy Boyd, Diploma ..... Air Conditioning, Heating, and Refrigeration
Cheryl Brandon, M.A. ..... English and Social Science
Michael Bridgers, M.S. ..... TRIO
Lanny Joe Brittain, Certificate ..... Industrial Maintenance: Electromechanical
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Angela Buck, B.S.N. ..... Nursing Education
Catherine S. Bullock, M.Ed. ..... English and Social Science
Ann B. Byrd, M.A. ..... Business Education
Glenda H. Carawan, B.S.B.A.E., M.A.Ed. ..... Business Education
John Cayton, M.A. ..... TRIO
*Dale Chalmers, Licensed Cosmetologist ..... Cosmetology
Marcia A. Chesson, M.A.Ed. ..... English and Social Science
Gayle Cobb, B.S.N. ..... Nursing Education
Charissa Colclough, B.S.N. ..... Nursing Education
Philip J. Costello, M.A. ..... Air and Water
Louise R. Cox, R.T.-R. ..... Radiologic Technology
*Lyman C. Craft, Certificate ..... Diesel Engine and Farm Machinery Mechanics
James A. Creech, M.S. ..... Business Education
*Susan H. Creech, M.S.H.E., M.A.Ed. ..... Teacher Assistant, Early Childhood Associate

Mary Daughtry, A.A.S. ..... Business Education
Faye H. Dempsey, M.A.Ed. ..... Business Education
Larry C. Dendy, M.P. ..... Math and Science
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*Margaret J. French, M.S. ..... Human Services
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Thomas W. Harding, RRT ..... Respiratory Therapy
*James A. Harris, Diploma ..... Masonry
Gene D. Hemby, B.S. ..... Machinist
Martha Hester, M.A. ..... English and Social Science
Jean Holley, M.A.Ed. ..... Business Education
*James N. Hoover, M.S. ..... Electronics Engineering
Bryon W. Horton, M.A. ..... Math and Science
*Lloyd F. Huggins, A.B. ..... Criminal Justice and Paralegal
*John C. Hutchens, M.A. ..... English and Social Science
Juanita J. Jones, M.S.N. ..... Nursing Education
Judith Kasperek, B.A., M.A. ..... Math and Science
Marcus C. King, B.S. ..... Math and Science
**Judith W. Kuykendall, B.S.N., M.S. ..... Nursing Education
*James H. Land, A.A.S. ..... Electronic Data Processing: Business
*Roy Lanier, A.A.S. ..... Welding
Donald E. Lee, B.S.B.A. ..... Business Education
Linda C. Leighty, M.A., M.S. ..... English and Social Science
**JoAnn B. Leith, M.A. ..... Business Education
Carla Lewis, B.S.N. ..... Nursing Education
Chester K. Lilly, M.S. ..... Math and Science
Tom Marsh, M.A. ..... English and Social Science
*Daniel C. Martin, Jr., A.A.S. ..... Electronic Servicing
*Edwin F. Martin, Jr., M.A.Ed. ..... Architectural Drafting
Robert May, M.S. ..... Agricultural Programs
R. Patsy McAllister, M.A. ..... Math and Science
Dwight D. McGowan, Diploma ..... Automotive Mechanics
Jimmy C. McLamb, A.A.S. ..... Electronic Data Processing: Business
Robert McMillan, A.A.S., R.T.-R. ..... Radiologic Technology
Carolyn E. Means, M.A. ..... Human Services
*Garrie W. Moore, A.A.S., R.T.-R. ..... Radiologic Technology
Shirley H. Moore, M.Ed. ..... Business Education
Kenneth D. Morey, M.S. ..... Criminal Justice and Paralegal
Marcia Moye, M.A. ..... Math and Science
Melinda Newell, M.F.A. ..... Commercial Art and Graphic Design
Laverne Olrogge, B.S. ..... Electronic Engineering
Kathryn W. Pacha, M.A.T. ..... English and Social Science
Helen M. Parks, M.S. ..... Electronic Data Processing: Business
Thomas W. Parrish, Juris Doctor .... Criminal Justice and Paralegal
*Constance L. Rhem, M.A. ..... Math and Science

*Harold R. Smith, M.A.Ed. ..... Agricultural Programs
*Roland A. Smith, B.S. ..... Automotive Mechanics
Sylvia Smith, B.S.N. ..... Nursing Education
*Hugh P. Stanley, M.A., M.A.Ed. ..... Industrial Management
*R. Bruce Steinbach, CRTT, RRT ..... Respiratory Therapy
Carol Stevens, B.S.N., M.S. ..... Nursing Education
Sarah M. Stocks, B.A. ..... Criminal Justice and Paralegal
Frank Sutton, M.B.A., C.P.A. ..... Business Education
*Jarvis E. Tripp, Diploma .... Electrical Installation and Maintenance
Thelma K. Turner, B.S.N. ..... Nursing Education
Elaine F. Umphlett, M.A. ..... Business Education
Kaye E. White, M.A. ..... English and Social Science
Lynda B. Wilms, M.A. ..... TRIO
Barbara B. Wilson, M.A.Ed. ..... Business Education
Helena Woodard, M.A. ..... English and Social Science
Linwood Woodard, M.A. ..... English and Social Science
Katherine G. Yopp, M.S.H.E. ..... Teacher Assistant, Early Childhood Associate

PRESCHOOL LABORATORY

Susan H. Creech, M.S.H.E., M.A.Ed. ..... Director
Barbara C. Carson ..... Secretary
Betty Lou Carson, A.A.S. ..... Aide
Jacqueline P. Floyd, A.A.S. ..... Teacher
Anna A. Modlin, A.A.S. ..... Aide
Mabel J. Perry, B.S. ..... Lead Teacher
Donna D. Staton, B.S. ..... Aide
Ruby Taylor ..... Cook

*Departmental Chairman
**Division Director

HISTORY OF THE COLLEGE

In March, 1961, Pitt Community College was chartered and designated by the State Board of Education as an Industrial Education Center. The College began its operation as Pitt Industrial Education Center during the same year. The programs developed and expanded, and in 1964, the school was designated a technical institute by the State Board of Education. The name was changed in July, 1964, to Pitt Technical Institute, and it opened in its new facilities in September, 1964, with nine curricula and 96 students.

In 1970, a second building was completed, providing an additional 31,458 square feet to serve the citizens of Pitt County. The White Building and the Humber Building have approximately 120,000 square feet of usable space with well designed laboratories, shops, and classrooms.

In 1975, an addition was made to the White Building, adding a new student lounge with various recreational facilities. This addition also provided facilities for the Nursing and Electronic Data Processing curricula.

The summer of 1979 brought about two important changes to Pitt Technical Institute. The Whichard Building, a 26,000 square foot classroom/shop facility, was completed on campus. Also, the North Carolina General Assembly enacted a bill that changed Pitt Technical Institute to Pitt Community College. The change brought about the addition of the two-year college transfer programs.

Today, Pitt Community College offers twenty-three technical programs, twelve vocational programs, three certificate programs, and three college transfer programs.

LOCATION

The College is located on Highway 11, South, between Greenville and Winterville.

STATEMENT OF PURPOSE

The purpose of Pitt Community College is to provide an environment and atmosphere conducive to occupational education designed to fill the manpower need in our society and to provide for the fullest possible development of the potential of students so that they may attain effective citizenship in society.

Toward this end, Pitt Community College is committed

- To provide expanded educational opportunities for young people and adults who desire to continue their education;
- To provide relatively inexpensive, nearby educational opportunities for high school graduates, school dropouts, and adults;

- To provide vocational programs of less than technical level, preparing students for jobs requiring different levels of ability;
- To provide technical programs preparing students for jobs of this level in industry, agriculture, business, and service occupations;
- To provide college transfer programs consisting of the first two years of general college studies;
- To provide programs of technical and vocational education for employed and underemployed adults who need training or retraining or who can otherwise profit from the programs; and
- To provide short courses that will meet the general adult and community service needs of the people.

AREAS OF STUDY AT PITT COMMUNITY COLLEGE

ASSOCIATE IN APPLIED SCIENCE DEGREE (Two-Year Programs)

Accounting
Agricultural Business Technology
Agricultural Chemicals Technology
Agricultural Science
Agricultural Drafting Technology
Banking and Finance***
Business Administration
Commercial Art and Graphic Design
Criminal Justice: Corrections
Criminal Justice: Law Enforcement
Early Childhood Associate
Electronic Data Processing: Business
Electronics Engineering Technology
General Office Technology
Human Services Technology
Industrial Maintenance Technology**
Industrial Management Technology**
Medical Secretary
Nursing Education Options*
Paralegal Technology
Radiologic Technology*
Respiratory Therapy*
Secretarial Science

*Satisfactory admissions test results, interview, high school record, and physical examination are some of the requirements for enrollment.
**Evening programs only.
***Evening programs for employees of banking institutions only.

Diploma (One-year Programs)

Air Conditioning, Heating, and Refrigeration
Automotive Mechanics (Two-year Option)
Carpentry and Cabinetmaking
Cosmetology
Diesel Engine and Farm Machinery Mechanics
Electrical Installation and Maintenance
Electronic Servicing (Two-year Option)
Industrial Maintenance: Electromechanical
Machinist
Masonry
Teacher Assistant
Welding

CERTIFICATE

Hospital Ward Secretary (Three-Month Program)
Nursing Assistant (Three-Month Program)
Surveying (Technical Specialty)

ASSOCIATE IN ARTS DEGREE (Two-year College Transfer Programs)

Pre-Business Administration
Pre-Education (Secondary)
Pre-Liberal Arts

SPECIAL CREDIT

Students may enroll in available courses from different curricula for possible transfer or self-improvement.

STUDENT LIFE

ADMISSIONS

Pitt Community College operates under the open-admissions policy established by the North Carolina General Assembly. All technical institutes and community colleges maintain an open-door admissions policy for all applicants who are high school graduates or high school leavers 18 years of age or older. The College has the right to selectively place these applicants.

General Admissions

The basic requirements for curricular programs (Allied Health Admissions excepted) follow:

1. The College requires high school graduation or the high school equivalency diploma for all technical, college transfer, and certificate programs. For vocational programs, the College requires students to have at least eight units of high school work.
2. Each applicant must submit a completed Application for Admission.
3. All students take placement tests with the exception of those making satisfactory scores on the SAT and transfer students who have successfully completed appropriate units in mathematics and English.
4. Applicants for Electronics Engineering Technology and Architectural Drafting Technology should have completed one unit of algebra and one unit of geometry.
5. Each applicant should make an appointment with an admissions counselor for a personal interview prior to enrollment in the College. The counseling session is designed to acquaint the student with the College and to help the student make a wise choice in program selection.
6. All new students are expected to participate in the orientation program.

Allied Health Education Admission

Allied Health programs have additional entrance requirements including a preadmission test. Guidelines for admission into the following programs may be obtained from an Admissions Counselor:

Nursing Education Options
Radiologic Technology
Respiratory Therapy
Hospital Ward Secretary
Nursing Assistant

The Allied Health Admissions Committee will review each completed application and consider criteria including admissions test scores, past academic achievement, references and other such factors deemed appropriate by the committee.

Transfer Admissions

Pitt Community College will accept students from other post secondary institutions provided applicants

1. Submit formal applications, and
2. Submit high school transcript and furnish transcript from each post secondary institution attended.

The dean of students may refuse admission to transfer students not in good standing at previously attended post secondary institutions.

Readmission of Curricular Students

Students re-entering after one or more quarters out of school, with the exception of summer quarter, will follow normal admission procedures. Students out of school as a result of disciplinary action must appear before the dean of students and petition for readmission to the College.

Provisional Admissions

A student applying too late to complete pre-entrance requirements may be admitted as a provisional student. In such cases, all requirements should be completed within the first quarter of attendance, including mailing of official transcripts (high school and post secondary) directly to the registrar's office.

Students not completing admission requirements by the end of the quarter will be reclassified as "Special Credit". This will preclude their receiving financial aid and/or VA benefits.

High School Admissions (Dual Enrollment)

The College admits selected high school students to appropriate courses as space permits under the following conditions:

1. The student is 16 years old or older;
2. Admission is approved by the Board of Trustees of the College and the appropriate local board of education upon recommendation by the College President and the applicable school unit superintendent; and
3. The student is taking at least three courses at the high school and is making appropriate progress toward graduation as determined by the school principal.

Individual student programs are jointly approved by the principal of the secondary school and the admissions office of the College.

High school students will pay regular tuition and fees and shall be treated as all other students.

International Student Admissions

Pitt Community College has been approved by the U.S. Immigration and Naturalization Service to enroll international students from three categories: permanent residents with the Alien Registration ("green card"), refugees, or student visa holders ("F-1" Student Visa). International students present in the United States on a student visa ("F-1") are considered nonresidents for the purpose of tuition payments. Length of stay, payment of taxes, or ownership of property, in themselves, do not qualify international students for the status of legal residence or domicile. For further information concerning international students' admissions, contact the office of the dean of students.

TUITION, FEES AND OTHER EXPENSES

Financial support from local, state, and federal sources allows each student an educational opportunity at minimum cost. Tuition is set by the North Carolina State Board of Community Colleges and is subject to change without notice. Textbooks, fees, and supplies are additional expenses which vary according to the program of study. The payment of all fees is required at the time of registration. Students may not attend class until tuition is paid.

Tuition

Full-Time Students

All North Carolina residents enrolled for twelve (12) or more curricular credit hours are charged a maximum tuition of $51.00 per quarter.

Part-Time Students

The tuition charge for curricular credit students and audit students is $4.25 times the number of credit hours for which the student is enrolled. Example: 9 credit hours x $4.25 equals $38.25.

Senior Citizens

North Carolina residents 65 years of age and older shall be exempted from the payment of curricular tuition and extension registration fees.

Audit Students

Audit students must pay the same tuition rates as other students.

Out-of-State Students

The entrance requirements and admission procedures for persons who reside outside North Carolina are the same as for residents. Tuition for nonresidents is $255.00 per quarter for full-time enrollment. For part-time students, the fee is $21.25 per credit hour.

Residence Classification for Tuition Purposes

Under North Carolina law, a person may qualify as a resident for tuition purposes in North Carolina, thereby being eligible for a tuition rate lower than that for nonresidents. Copies of the applicable law and of implementing regulations are available for inspection in the office of the dean of students and also in the Learning Resources Center where they may be examined upon request.

Fees and Expenses

Student Activity Fee (Day Students Only)

The student activity fee for each full-time student (12 credit hours or more) is $6.00 per quarter. Those students registered for nine through eleven credit hours are charged $4.00 per quarter. Students registered for six through eight credit hours are charged $2.00 per quarter and students registered for less than six credit hours are charged $1.00 per quarter.

Accident Insurance Fee

Accident insurance, covering hours in school and transportation to and from school, is available for $10.00 per year. This insurance is strongly recommended, through not required. Students must submit claims for injury covered under the accident insurance provisions immediately, but in no instance later than 30 days, in order to expect coverage.

The premium for accident insurance is subject to change annually.

Parking Fee

There is a $4.00 annual charge for parking permits for day students who enroll in fall quarter. Charges for students beginning in a later quarter are prorated.

Textbooks and Supplies

The cost of textbooks and supplies varies according to the program of study. These items may be purchased from the bookstore.

Lab Fees for EDP Courses

Lab fees are charged for classes which require special equipment or supplies. These fees are indicated in course listings in the catalog. See course descriptions for actual fee per course.

REFUND POLICY

The College will refund tuition if the student is, in the judgment of the dean of students, compelled to withdraw from school for unavoidable reasons. In such cases, two-thirds of the student's tuition may be refunded if the student withdraws within ten calendar days after the first day of classes as published in the school calendar. Tuition refunds will not be considered for tuition of $5.00 or less, unless a course or curriculum fails to materialize due to no fault of the student.

Activity and insurance fees are nonrefundable.

Students desiring a tuition refund are asked to follow the steps listed below:

1. Contact a counselor for approval to officially withdraw from classes (see Official Withdrawal) and obtain the appropriate withdrawal form,
2. Complete the withdrawal form,
3. Submit the completed withdrawal form to the registrar's office,
4. Contact the dean of administrative services for approval and a written request to receive a tuition refund.

Students prepaying may receive a full refund of tuition and fees if the official withdrawal is completed by 3:00 p.m. of the day before registration of the quarter involved.

ACADEMIC REGULATIONS

REGISTRATION

The College year consists of four quarters. Students who are pursuing a curriculum must preregister or register at the beginning of each quarter as they progress toward their educational objectives. Returning students must make satisfactory settlement with the College for all indebtedness. All students will register during the prescribed registration period for that quarter (refer to College calendar).

Preregistration and Prepayment

Preregistration and prepayment are held the eighth week of each quarter at a time when students and advisors can review students' academic progress and plan courses for the coming quarter.

This opportunity is an important part of each student's program. Students and their advisors have an opportunity to discuss academic problems on an individual basis and keep abreast of progress.

Those students failing to preregister at the designated time must complete registration on registration day.

Late Registration (Second day of classes through drop/add)

A student may register for class(es) provided:

1. The class is not cancelled or closed;
2. The student convinces the advisor and the dean of students that it was impossible or would have involved extreme hardship to register at the appointed time; and
3. The student pays a late registration fee of $5.00.

Auditing Courses

Students who wish to audit courses must register for such courses on a special audit registration card. Auditors receive no credit but are expected to adhere to the same attendance policy as credit students. Participation in class discussion and examinations is at the option of the student. Fees for auditors are the same as for regular students. In the event of limited classroom space, first priority will be given to regular credit students.

AN AUDIT CANNOT BE CHANGED TO CREDIT NOR CREDIT TO AUDIT AFTER THE DEADLINE FOR ADDING COURSES.

FINANCIAL AID RECIPIENTS WILL NOT RECEIVE PAY FOR AUDITING A COURSE.

DROPPING AND/OR ADDING COURSES

In some instances it is necessary for students to make adjustments in their schedules. To insure that the student receives proper credit, a Drop-Add Card should be completed and returned to the registrar's office. The College calendar (published in the Student Handbook and the General Catalog) indicates the last day to drop or add courses. This date is subject to change with proper notification.

NO COURSE IS OFFICIALLY DROPPED OR ADDED UNTIL THE REQUIRED PROCEDURE IS COMPLETED. This also applies to classes cancelled by the College.

The procedure to be followed is:

1. Obtain drop-add form from the registrar's office,
2. Have instructor(s) involved initial the form,
3. Have advisor sign the form,
4. Have registrar sign the form, and
5. Have the form validated by the cashier.

WITHDRAWAL FROM CLASSES

Official Withdrawal

During the first twenty class days of a quarter, a student may withdraw from courses without penalty. (See College calendar for applicable date each quarter.) After the fourth week, official withdrawals from one or more courses or from the College are permissible when circumstances beyond control of the students prevent them from completing courses EXCEPT THAT NO OFFICIAL WITHDRAWALS WILL BE PERMITTED DURING THE LAST TEN (10) CLASS DAYS OF ANY QUARTER. Official withdrawals do not count as hours attempted. Official withdrawals after the first twenty days and prior to the last ten days of a quarter may be secured for the following reasons:

- Verification of personal illness,
- Illness or death in immediate family,
- Change in employment status, and
- Relocation to another area.

An official withdrawal may be allowed at the discretion of the dean of students for reasons other than the previous reasons, if in his judgment such a withdrawal is warranted.

Students qualifying for an official withdrawal must use the following procedures:

1. Present verification that the student qualifies for official withdrawal status to a counselor to obtain a withdrawal card,
2. Have class instructor(s) initial the card,
3. Complete and have advisor sign the card, and
4. Submit the completed card to the registrar's office.

Students who officially withdraw from courses before the end of the quarter will receive no grades for those courses. Only the course(s) for which they registered will appear on the transcript. For more information, see the counselors or the registrar.

Unofficial Withdrawal

An unofficial withdrawal from one or more classes is given to students who leave school or stop attending classes without qualifying for or following procedures for official withdrawal status. This includes students dropped for excessive absences (see Attendance) and not reinstated. Unofficial withdrawals count as hours attempted with quality points of "0" in determining the grade point average. Students who leave school without officially withdrawing will lower their GPA and jeopardize future readmission to the College. For more information see the counselors or the registrar.

VETERANS NOTE: Any course for which an unofficial withdrawal of an "I" (Incomplete) is received may not be retaken for pay purposes under Title 38, U.S. Code as amended by Public Law 93-508.

CREDIT BY EXAMINATION

A student who evidences prior proficiency for a course due to previous work or educational experience may apply for credit by examination provided the student is currently enrolled in the College.

Application for approval to take the examination must be made through the academic advisor and approved by the department chairman, using the Permit for Credit by Examination form. If approved, the chairman will make arrangements for the student to take an appropriate test administered by a department instructor.

Exams will be scheduled at the discretion of the department chairman. No student may be permitted to take an exam without presenting the course instructor the properly executed Permit for Credit by Examination.

ALL EXAMINATIONS MUST BE COMPLETED DURING THE FIRST 8 WEEKS OF EACH QUARTER. A STUDENT MAY NOT TAKE AN EXAM-

INATION FOR ADVANCED PLACEMENT MORE THAN ONCE FOR ANY ONE COURSE. All grades other than "F" will be recorded on the student's permanent record.

Students applying for credit by examination must use the following procedure:

1. Contact the advisor and the department chairman to obtain the Permit for Credit by Examination,
2. Have registrar's office sign the permit,
3. Pay additional nonrefundable tuition, if applicable, and
4. Present Permit to instructor who will administer the test.

The instructor administers and reports the results of the examination to the registrar's office within one week of the date of approval of the Permit by that office. Credit hours will count toward graduation; these will be computed in grade point average as grades and quality points will be recorded.

CHALLENGE EXAMINATION

Students enrolled in a course may feel they have become proficient in course subject matter before the scheduled time for completion of the course. In that event, if they can demonstrate prior knowledge of subject matter based on work or educational experience, they may, with the instructor's approval, "challenge" the course by taking the challenge examination during the first eight weeks of the quarter. A student may not challenge a course more than once.

THIS DOES NOT APPLY TO AUDIT STUDENTS (See Audit).

TRANSFER CREDIT

Curricular students are responsible for requesting transcripts from all previously attended institutions (secondary and postsecondary).

Transcripts for all students enrolled in a curricular program will be evaluated automatically.

Students transferring to Pitt Community College may transfer all courses with comparable course content so long as the GPA of all courses being transferred does not fall below a 2.0. EXCEPTION: Students transferring into Allied Health curriculums may not transfer any Allied Health courses with a grade below "C".

A maximum of sixty (60) credit hours may be transferred from institutions outside the North Carolina Community College System toward completing an associate degree or diploma program. Transfer students must complete a minimum of twelve (12) quarter hours of major course work (departmental prefix designation) at Pitt Community College.

Pitt Community College awards credit for appropriate scores on various exams of the College-Level Examination Program (CLEP). The chairman of the department in which the courses will be taught determines credit to be awarded.

College transfer or technical credit for work experience cannot be allowed except through the organized and supervised cooperative education program. Academic credit is not allowed for previous work experience outside of the supervision of the College; however, a student may challenge relevant courses by examination.

Work at institutions which are not regionally accredited is evaluated on the basis of the current issue of "Transfer Credit Practices of Designated Educational Institutions" published by the AACRAO or similar publications.

GRADE POINT AVERAGE (GPA)

The grade point average is determined by dividing the total number of quality points by the total number of credit hours of work attempted.

DEAN'S LIST AND HONOR ROLL

All full-time technical, vocational, and college transfer students maintaining a quarterly grade point average between 3.50 and 4.00 will be recognized on the Dean's List. Those maintaining a quarterly grade point average between 3.00 and 3.49 will be recognized on the Honor Roll.

The Dean's List and Honor Roll are prepared by the registrar's office and mailed to all local or area newspapers of the students who qualify for either.

A student with an "Incomplete" grade is not eligible for the Dean's List or Honor Roll in the quarter the "Incomplete" is received.

GRADING SYSTEM

The following grading system is used by Pitt Community College.

Letter	Numerical Equivalent	Quality Points Per Quarter Hour
A	93-100	4
B	85-92	3
C	77-84	2
D	70-76	1
F	Below 70-Failing	0
W	Unofficially Withdrew	0
*NA	Never Attended	0
*I	Incomplete	0
*AUD	Audit	0

*Not included in computing grade point average.

INCOMPLETE

An "Incomplete" is given at the discretion of the instructor when a student demonstrates progress in a course but needs more than one quarter to complete the requirements of the course. To qualify for a grade of "I", a student must be enrolled in a course the last ten days of the quarter. No grades or quality points are awarded because of incomplete work.

The student and instructor (or if unavailable, the department chairman) must fill out a "Requirements to Remove Incomplete" form indicating what the student must do to earn a final grade. This should be signed by both instructor and student with a copy to student's advisor.

REMOVAL OF INCOMPLETE

An "I" must be removed during the next quarter immediately following receipt of the "I". The instructor has two options for requiring the student to remove the "I":

1. Re-enroll in the class or
2. Complete the work during the first eight weeks (See College Calendar).

At the discretion of the instructor, a student may be granted an extension of time under the following provisions:

1. A student must request the extension from the instructor.

2. A student may be given an extension of up to 12 months to remove an "I".

Extension must be approved by the department chairman and submitted to the registrar's office prior to the deadline for removal.

If the student fails to take action as and when prescribed, a grade of "F" will be automatically computed in the student's cumulative grade point average. After that date, no change in grade will be made because of this failure.

A student receiving and "I" in a prerequisite course may not proceed to the sequential course without permission of the instructor or, if absent, the department chairman. No student can graduate with an "I" on his records if the course is required in his curriculum for graduation.

ACADEMIC PROGRESS

The policy governing academic progress at Pitt Community College is intended to assist the student in successfully completing a chosen program of study within a given period of time. A cumulative or overall grade point average of 2.00 is required for graduation in all curricular programs.

Academic Probation: A student is on academic probation when the cumulative grade point average falls below the academic probation level according to the standards of academic progress.

Unsatisfactory Academic Progress: A student who remains on academic probation for the second consecutive quarter is considered making unsatisfactory progress during that quarter.

Satisfactory Academic Progress: A student is considered making satisfactory academic progress until placed on academic probation for the second consecutive quarter; then the student is considered making unsatisfactory academic progress as of the beginning of that quarter. Federal regulations require that a student receiving federal financial aid of any kind be making satisfactory academic progress. (See Financial Aid Section)

Good Academic Standing: A student who is not on academic probation is considered in good academic standing.

Standards of Academic Progress Scale

The following scales establish standards of academic progress to ensure that the student will attain a cumulative grade point average of 2.00 required for graduation.

Scale for Diploma and Certificate Programs

Hours Toward Degree	GPA
0-15	1.00
16-30	1.35
31-40	1.75
41-	2.00

Scale for Associate Degree Programs

Hours Toward Degree	GPA
0-15	1.00
16-30	1.25
31-45	1.50
46-60	1.75
61-75	1.90
76-	2.00

This policy does not apply to students classified as Special (those students not working toward a degree or diploma). When a student enrolls in a regular curriculum, all credit hours previously attempted will be computed in the grade point average.

TRANSCRIPTS

Student transcripts are available under the provisions of The Family Educational Rights and Privacy Act of 1974 (P.L. 93-380). Under this Act, written consent from the student is required before the student records can be released to anyone. Additional information may be obtained from the registrar's office. Pitt Community College requires a written request 24 hours prior to release of a transcript.

The first two transcripts are free; subsequent transcripts will cost $1.00 each.

All financial obligations to the College must be cleared before any transcript will be released.

TRANSFER TO OTHER INSTITUTIONS

Students planning to transfer to four-year colleges or universities are responsible for becoming acquainted with that institution's departmental requirements in the intended major and being guided by those requirements in selecting curriculum and electives. The College maintains a file of catalogs of many other colleges and universities in the counselors' office. The counselors and the faculty advisors will assist students in selecting an appropriate institution and interpreting its requirements.

COURSE LOAD

Full-time curricular students must take a minimum of 12 credit hours. Normally students take 15 to 18 hours. In addition to 12 credit hours, vocational students must take a minimum of 22 contact hours to be classified full-time. Students registering for more than 20 credit hours must have a cumulative grade point average of 2.0 or above or permission of the department chairman.

Students who are employed more that 15 hours per week should reduce their class load accordingly. Beginning students who have full-time employment are urged to limit class loads to 9 to 12 credit hours until they have demonstrated ability to carry a heavier schedule.

ATTENDANCE

Regular and punctual class attendance is expected of all students in order for them to achieve their highest potential in the curriculum they have chosen and to develop desirable personal traits necessary to obtain employment after graduation. Students who anticipate absence should contact their instructors prior to the absence if possible. It is the students' responsibility to make up work missed as soon as possible if the instructors' course guidelines permit.

Instructors will drop students from class rolls (see Unofficial Withdrawal) for the following reasons:

- Students will be dropped from class rolls when their absences from the class begin to affect the quality of their work and their class grades as determined by the class instructor.
- Any student absent five consecutive class meetings will be dropped from the class roll.
- For evening students, any student absent two consecutive class meetings must secure permission from the director of evening programs or the dean of students to continue in the class.

Students who have been dropped and have a valid reason for the absences may be reinstated at the discretion of the instructor. Should the instructor deny reinstatement, the student has recourse to appeal to the dean of students.

CLASS SCHEDULE

Pitt Community College offers classes between the hours of 8:00 A.M. and 10:00 P.M. five days per week, except on Friday when all classes end at 6:00 P.M. The majority of the credit courses are offered between the hours of 8:00 A.M. and 6:00 P.M. When demand justifies, at least one section of each curricular course is offered during the evening hours.

Noncredit courses for personal, occupational, and community improvement are offered during both day and evening hours.

With careful planning a person can complete most of the work required for a degree or diploma in certain progams by attending evening class.

CHANGES IN REGULATIONS

Pitt Community College reserves the right to make changes in the regulations, courses, fees, and other matters of policy and procedure as deemed necessary.

CHANGE IN MAJOR COURSE OF STUDY

Students desiring to change major course of study must receive counseling. A request for change of curriculum is initiated with a student counselor, signed by both previous and new advisors, and returned to the registrar's office. No registration schedule should be completed by an advisor until this is done.

STUDENT CLASSIFICATIONS

Freshman	A student who has earned fewer than 54 quarter hours of credit.
Sophomore	A student who has earned 54 or more quarter hours of credit.
Full-time Technical or College Transfer Student	A student who is registered for twelve or more quarter hours of credit.
Part-time Student	A student who is registered for eleven quarter hours of credit or fewer.
Special Student	A full-time or part-time student not seeking a degree or diploma.
Full-time Vocational Student ...	A student who is registered for twelve or more credit hours and at least 22 contact hours.

GRADUATION REQUIREMENTS

Upon recommendation of the faculty and the approval of the Board of Trustees, appropriate degrees, diplomas, or certificates will be awarded to students successfully completing the requirements of the curricula in which they were enrolled.

All students must

1. Complete required and elective courses as prescribed in the catalog of record of the candidate for graduation,
2. Earn a minimum of 2.0 grade point average ("C" average) in the required courses of the curriculum for which they are applying for graduation,
3. Clear all financial obligations to the College,
4. Complete a minimum of 12 quarter hours of major course work (departmental prefix designation) at the College (See Transfer Policy), and
5. Apply for graduation.

   Students should meet with their advisors and complete their graduation checklists during preregistration for the candidates' last quarter of attendance. When the checklists have been completed and signed by both students and advisors, the advisors will present them to the registrar. After a complete check, the registrar will notify the dean of students of candidates' eligibility for graduation. Those students determined ineligible will be notified by their advisors.

A student is eligible to graduate with honors if his cumulative GPA is at least 3.50 the quarter prior to graduation.

Graduation exercises are held in late May and August. Presence at graduation is required except when permission for graduation in absentia has been granted by the dean of students. Requests for such permission must be made in writing 30 days prior to graduation.

Students pay for their caps and gowns. The Student Government Association provides degrees, diplomas, and certificates. A reception for graduates and their guests is held immediately following graduation exercises.

CATALOG OF RECORD

Students in continuous attendance (summer quarter excepted) may graduate under the provisions of the catalog in effect on their dates of entry, or they have the option of choosing the requirements of a subsequently revised issue. Students not in continuous attendance must graduate under the provisions of the catalog in effect on their last reentry dates or subsequent issues.

REPETITION OF COURSE WORK

Students may repeat any course, but each attempt will be recorded and counted in determining the students' grade point averages. No course may be counted more than once toward graduation. When

students receive "Fs" in courses not offered during the remainder of those students' residence, equivalent courses may be substituted for purposes of meeting program requirements upon recommendation of the appropriate department chairman and the assistant dean of instruction for curricular programs.

Veterans should be aware that they cannot receive VA benefits for repeating courses passed.

FINANCIAL AID

The goal of Pitt Community College's Financial Aid Office is to provide assistance to students that have a financial need. Need is the difference between the cost of education and the amount the student and his family can afford to pay, as determined by a standard formula. This amount is called "Family Contribution." Need is determined by evaluating the information provided on an aid application. Factors such as income, assets and benefits are all considered in determining the need for aid. All financial awards are determined by the institution's Financial Aid Office.

Financial Aid is awarded on an annual basis; therefore, a student must submit a new financial aid application each year that he wishes to be considered for financial aid.

To receive financial aid students must be enrolled for at least 6 credit hours in an eligible curriculum (degree or diploma). A student must maintain satisfactory academic progress according to the standards of the college and not owe a refund on a grant or be in default on a loan.

The Financial Aid Office will mail an awards letter explaining the award amounts and dates of disbursement to each student that applies for financial aid.

ACADEMIC REQUIREMENTS FOR SATISFACTORY PROGRESS TO MAINTAIN FINANCIAL ASSISTANCE

Federal regulations require Pitt Community College to define minimum standards of Satisfactory Academic Progress which students must meet in order to receive Title IV Financial Aid which includes Pell Grant, Supplemental Education Opportunity Grant, College Work-Study, Guaranteed Student Loan, North Carolina Student Incentive Grant, and funds from other federal or state administered programs.

A. Measurable Satisfactory Academic Progress

1. Full-time students are defined as those who are registered for 12 or more credit hours each quarter; three-quarter time students, 9 to 11 credit hours; and one-half time students, 6 to 8 credit hours. Students enrolled for five or less credit hours are exempt from this requirement since they are not eligible for Title IV Financial Aid.

2. Satisfactory Progress is defined as the satisfactory completion of 50% of the credit hours carried.

3. To continue receiving Financial Aid, recipients must meet the requirements of the Measurable Time Frame Chart and have earned a cumulative GPA according to the total number of quarter hours for which they have attempted as indicated below:

DIPLOMA AND CERTIFICATE PROGRAMS		ASSOCIATE DEGREE PROGRAMS	
Hours Toward Degree	**GPA**	**Hours Toward Degree**	**GPA**
0-15	1.00	0-15	1.00
16-30	1.35	16-30	1.25
31-40	1.75	31-45	1.50
41 and above	2.00	46-60	1.75
		61-75	1.90
		76 and above	2.00

4. Students who complete the graduation requirements for a degree, diploma, or certificate program and re-enroll to pursue those course requirements for a second degree may request from the Financial Aid Officer an extension of the time limitation covering only that part actually necessary to complete the second degree.

B. Financial Aid Probation

Students who fail to meet the requirements on the Measurable Time Frame chart for any quarter are placed on Financial Aid Probation. Students in this category may continue to receive Financial Aid for one additional trial quarter and if the requirements are not met at the end of the trial quarter his/her financial aid will be terminated until the requirements are met for reinstatement.

C. Appeal Process

1. Student may appeal their suspension/termination of eligibility for Financial Aid only for "extraordinary circumstances" to the Academic Appeals Committee.

2. Appeals must be in writing and accompanied by appropriate documentation and presented to the Financial Aid Officer for action by the Academic Appeals Committee, which is composed of the Dean of Student Services, the Director of Counseling, and the Financial Aid Officer.

3. Students must submit written appeals and documentation no later than the third week of classes of the quarter immediately

following the quarter for which Financial Aid eligibility was terminated.

D. Unsatisfactory Progress

Unsatisfactory Progress occurs when Financial Aid recipients fail to meet all the Measurable Satisfactory Academic Progress definitions specified.

E. Procedures For Reinstatement

1. Students who have their Financial Aid eligibility suspended/ terminated may be reinstated in one of the following ways:

   a. By the Appeal Process.
   b. By enrolling at the college without the benefit of Financial Aid and meeting the requirements on the Measurable Time Frame chart.

2. Retroactive payments of Financial Aid for quarters when students were on suspension is prohibited.

F. Repeated and Remedial Courses

Any student who is required by the college to repeat or enroll in remedial courses will be given up to two additional quarters of Financial Aid eligibility.

G. Withdrawals

1. Consideration will be given to students who withdraw for medical reasons or extreme family hardships. Written verification will be necessary to prove such cases. The Financial Aid Officer will review each case.

2. Financial Aid will **not** be disbursed to any student who received 0.00 GPA for their last quarter of enrollment.

H. Academic Requirements

The Academic Requirements for Satisfactory Progress are effective with the Fall 1984-85 academic year.

GRANTS

Pell Grant (formerly Basic Educational Opportunity Grant)

Pell Grants are awards to help undergraduates pay for their education after high school. For many students these grants provide a "foundation" of financial aid to which aid from other Federal and non-Federal sources may be added. Students should contact the Financial Aid Office for an application.

Supplemental Education Opportunity Grant (SEOG)

The Supplemental Educational Opportunity Grant is an award to college students of exceptional financial need, who, without this grant, would be unable to continue their education. It is for undergraduates who are enrolled full-time in an eligible program of study.

North Carolina Student Incentive Grant

Legal residents of North Carolina accepted for enrollment or enrolled full-time in good standing may apply for North Carolina Student Incentive Grants to help pay their educational expenses. Students must demonstrate "substantial financial need" as determined through the need analysis system of the College Scholarship Service.

Students may apply for this grant by checking the appropriate block and enclosing an additional fee of $2.50 with the Financial Aid Form.

LOANS

Guaranteed Student Loan

The Guaranteed Student Loan's central lender is College Foundation, Inc. located in Raleigh, North Carolina. To be eligible, student must be a United States citizen or eligible non-citizen who is a permanent legal resident of North Carolina. Students must be enrolled or accepted for enrollment and making satisfactory academic progress in an eligible academic program.

Undergraduates may borrow up to $2,500 per year, however, you cannot borrow more than the cost of education at your school less any other financial aid that you receive. The interest rate for new borrowers is 8% and you must begin repaying 6 months after you graduate or leave school.

Out-of-State Loans

Out-of-state students should contact their family banks or state higher education assistance agencies concerning state administered guaranteed student loan programs.

Burroughs Wellcome Loan Fund

Pitt Community College administers a loan fund which is supported by the Burroughs Wellcome Company. Eligible students may secure short-term loans at no interest (if paid in full by the due date). Money obtained through this fund must be used for direct educational expenses which are limited to the costs of tuition, insurance fees, or supplies and books. These loans must be repaid before the end of the quarter in which the student received the loan. All loans must be

secured by a promissory note with the signature of one other person as a surety. Please note that this loan is only for students who have no other sources of financial assistance. Students should contact the Dean of Students' Office for an application.

Doris Hall Phelps Memorial Loan Fund

This fund was established in memory of Mrs. Doris Hall Phelps, who for several years was a loyal and devoted employee of the Learning Resources Center at Pitt Community College.

Eligible students may borrow money to pay tuition only. There will be 5% interest assessed on any money loaned. These loans are for short terms not to exceed two quarters. A cosigner will be required before any of these funds can be loaned. Students should contact the Dean of Students' Office for more information.

Phillip L. Clark NOW Fund

A student should contact the Human Services Technology Advisors for information concerning this loan fund.

PCC Memorial Scholarship/Loan Program for Vocational and Technical Students

This loan was established to provide intermediate term loans for PCC students who desire financial assistance in order to continue college and thereby achieve their career goals. Students must be in a technical or vocational curriculum and not receiving adequate financial assistance to meet their needs. The maximum amount to be loaned will not exceed $250 per year. All loans must be paid in full fourteen months after graduation or termination of studies. Students should contact the Dean of Students' Office for more information.

PCC Nursing Loan Fund

A PCC Nursing Loan Fund has been established to assist needy students, without sufficient amounts of financial assistance, with short-term loans in order that they may continue college and thereby achieve their career goals. The maximum amount to be loaned will normally not exceed $250. All loans must be paid in full nine months after graduation. Nursing students may obtain a loan application from the Financial Aid Office.

SCHOLARSHIPS

Carolina Telephone Scholarship Program

Two scholarships in the amount of $500 each will be awarded to North Carolina residents enrolled or intending to enroll in a course of

study leading to a technical degree or vocational diploma. The purpose of the scholarship is to make educational funds available primarily to those persons who are hardest hit by recession and chronic unemployment—minorities such as blacks, Indians/Native Alaskans, or Orientals; and "displaced worker" such as a person who has lost his/her job because of obsolete job skills or because of economic recession in his/her former field of employment.

The student must maintain a passing grade average at or above the level for graduation and must continue where he/she was enrolled at the time of the scholarship for the duration of the scholarship. Students may contact the Financial Aid Office for an application.

Arlene Collins Memorial Scholarship

This scholarship was formed in memory of Arlene Collins for the purpose of providing financial assistance in the form of tuition only for a first year nursing student progressing into the second year of the nursing program. Students should contact the Financial Aid Office for an application.

Diesel Engine and Farm Machinery Mechanics Scholarship

The Farm Equipment Dealers of Pitt County and eastern North Carolina have made available to students enrolled in the Diesel Engine and Farm Machinery Mechanics program at PCC, scholarships in the amount of $200 each. The number of scholarship awards made annually is determined by the amount of scholarship funds available. Recipients are selected based on need, academic achievement, performance, and a proven interest toward pursuit of Diesel Engine and Farm Machinery Mechanics as a career. Students may contact the Dean of Students' Office for more information.

PCC Institutional General Scholarship

This scholarship has been established for full or part-time students enrolled in a technical, vocational, or college transfer program. Selection is based on academic performance as well as need. Students may contact the Financial Aid Office for an application.

PCC Memorial Scholarship/Loan Program for Vocational and Technical Students

A. (A Scholarship for High School Graduates in Greenville and Pitt County to Attend PCC, One per School)

This scholarship has been established to reward and encourage academic excellence in pursuit of vocational and technical education at Pitt Community College by providing financial assistance in the form of scholarships for outstanding high school graduates and is awarded annually.

Greenville and Pitt County school systems' high school seniors who plan to attend Pitt Community College and enroll in vocational or technical programs are eligible to apply. Scholarships valued at $250 each will be awarded to one graduate of each of the following high schools:

J.H. Rose High School
Ayden-Grifton High School
D.H. Conley High School
Farmville Central High School
North Pitt High School

The scholarship recipient will be initially selected on the basis of high school academic achievement, interest in pursuing a vocational/technical career, and financial need. Students should contact the Director of Counseling at their high school for an application.

B. Scholarship for Current Pitt Community College Students

This scholarship has been established to reward and encourage academic excellence in pursuit of vocational and technical education at Pitt Community College by providing financial assistance in the form of scholarships for current PCC students and is awarded annually.

Current full time PCC students who have completed at least three (3) quarters of college work at PCC and plan to pursue the completion of a two-year vocational or technical program at PCC are eligible to apply. Three scholarships valued at $250 each will be awarded. The scholarship recipient will be initially selected on the basis of academic achievement at PCC, demonstrated interest in pursuing a vocational/technical career, and financial need. Contact the Financial Aid Office for an application.

Prepshirt Scholarship

Prepshirt Manufacturing Corporation has donated funds for scholarships to be used by Prepshirt employees and their families. Contact the Prepshirt Corporation for an application.

Tar Heel Chapter of RSES (Scholarship for Air Conditioning, Heating, and Refrigeration Students)

The Tar Heel Chapter of RSES (Refrigeration Servicing Engineering Society) has made available to students enrolled in this curriculum one scholarship annually in the amount of $200 to a second quarter student in this four-quarter program. The scholarship will be awarded based on academic performance, need, and proven interest in the air conditioning, heating, and refrigeration field. Recipients are expected to become members of the Tar Heel Chapter (membership fees will be

paid by the chapter). Students may contact the Dean of Students' Office for an application.

Wachovia Technical Scholarship

Wachovia Bank and Trust Company has made available to students enrolled in technical programs at PCC, two scholarships annually in the amount of $500 each to second year students. The scholarships will be awarded based on need and the student's performance in the first year of a two-year technical program. Students should contact the Financial Aid Office for an application.

Weyerhaeuser Scholarship

The Weyerhaeuser Company has made available to students enrolled in an industrial related field of study two scholarships annually in the amount of $900 each to either technical or vocational students. The scholarships will be awarded based on academic achievement, need, performance, and participation in outside activities coupled with a proven interest toward an industrial career. Students may contact the Financial Aid Office for an application.

Danny K. Woods Scholarship

Alpha Omega Chapter of Epsilon Sigma Alpha International sponsors a scholarship to provide financial assistance in the form of tuition and required fees for a J. H. Rose High School graduate who is a first year accounting student at Pitt Community College. The scholarship recipient will be initially selected on the basis of high school academic performance, financial need, and professionalism. Students should contact the J. H. Rose High School Director of Counseling for an application.

COLLEGE WORK STUDY PROGRAM

The College Work Study Program provides jobs for undergraduates and graduates who have a financial need as determined by College Scholarship Service (FAF) or American College Testing Program (ACT). Students may be allowed to work up to 15 hours per week as funds permit. The Financial Aid Office tries to place students in a position related to their chosen curriculum when possible. Students cannot work during class hours and the job should **NOT** jeopardize the student's time or ability to perform satisfactory progress in all classes. Students are paid monthly and will receive minimum wage for hours of satisfactory work completed.

Students should first complete the Financial Aid Form (FAF) to determine a need for the College Work Study Program. If there is a need, then the student should complete an institutional work study application. This application may be obtained from the Financial Aid Office.

OTHER SOURCES OF ASSISTANCE

Social Security Benefits

Unmarried dependents of retired, disabled, or deceased workers who register for and maintain a minimum of 12 credit hours per quarter may be eligible for continuation of Social Security benefits subject to the following requirements:

- If over 18 years old, students must have been entitled to benefits for August 1981, and
- Student must be enrolled full time in a post-secondary school before May 1, 1982.

Students meeting the above requirements will not receive any further cost of living increases nor will they receive pay for the months of May, June, July, and August beginning in May 1982.

Beginning August 1982, the student benefits will be reduced 25% from August 1981 entitlement. Each August thereafter, benefits will be reduced another 25% until August 1985, when the program will be discontinued.

Job Training Partnership Act

This program is a source of financial aid which can be utilized to offset cost of training for individuals deemed eligible. For further information, contact the Director of Occupational Extension in the Office of Continuing Education.

Migrant and Seasonal Farmworkers Association

For information concerning this program, write or contact: Migrant and Seasonal Farmworkers Association, Inc., District I Office, P.O. Box 970, Bethel, NC 27812.

Vocational Rehabilitation

Any person who has a substantial physical or mental condition which prevents employment may be eligible for services for the North Carolina Division of Vocational Rehabilitation Services. If eligibility is determined, financial assistance for educational costs may be provided as part of a total rehabilitation program. For further information contact any Vocational Rehabilitation unit office. The Greenville unit office is located at 226-A Commerce Street.

North Carolina National Guard Tuition Assistance Program

Active North Carolina National Guard members who have a minimum of two years remaining as a member of the Guard from the end of the academic period for which tuition assistance is requested may

be eligible for tuition assistance. Persons desiring information or applications for this assistance should contact their unit representative.

Local Sources of Financial Aid

Students are encouraged to keep in touch with their respective high school guidance counselors in order that they may be aware of the various kinds of scholarships granted by hometown civic clubs, church groups, or other nonprofit associations or foundations.

Veterans Benefits

The Veterans Benefits Laws provide financial assistance to any veteran enrolled in an approved curriculum and eligible for benefits. To be eligible, the veteran student must be enrolled in an approved curriculum and taking (for pay) only those classes required for graduation in the chosen curriculum. Veteran students must maintain satisfactory attendance, conduct, and academic progress, according to the school standards, for continuing eligibility for payment.

V. A. payments for veterans in a technical or college transfer program are based on credit hours per quarter as indicated below:

12 or more credit hours	full time
9-11 credit hours	three quarter time
6-8 credit hours	half time
Below 6 credit hours	no pay

V. A. payments for veterans in a vocational program are based on a combination of credit hours per quarter and contact (clock hours in school) hours per week as follows:

12 credit and 22 contact hours	full time
9-11 credit and 16-21 contact hours	three quarter time
6-8 credit and 11-15 contact hours	half time
Below 6 credit and 11 contact hours	no pay

Dependents of Veterans

The veterans administration offers up to 45 months of educational benefits for qualified dependents of certain disabled or deceased veterans. An allowance of up to $342.00 per month is made to students under the program.

For further information on V. A. benefits, the student should contact the College veterans affairs office, the N. C. Division of Veterans Affairs, or the V. A. Regional Office at Winston-Salem.

THE FACULTY ADVISOR SYSTEM

The faculty advisor system is designed to make a contribution to the students' educational progress. Students who have declared curriculums are assigned a faculty advisor. Students may know their advisors not only as instructors, but also as one to whom they may go and receive assistance in program planning, scheduling, and registration. The objectives of the faculty advisors are as follows:

- To have a conference with each new advisee as soon as possible to get acquainted.
- To be alert to student problems in order to assist the student in both academic and personal matters. (Problems which the advisor feels unqualified to handle should be referred to the counselors' office.)
- To assist the individual student in planning an academic schedule to meet course prerequisites and curriculum requirements.
- To maintain an academic progress file on each advisee. (This file should include grade reports, a graduation checklist, and an information sheet.)
- To post office hours, showing when available for consultation with students.
- To serve, upon request of the student, as the student's representative in conferences where decisions affecting status are made.

STUDENT SERVICES

Counseling Services

Counseling services are provided by trained personnel and are available to every curriculum student from pre-admission through graduation. There is no charge for these services.

Students may come to the counselors office any time a problem arises which could affect progress in school. The counselor will try to have at least one conference per year with each student. A counselor is on duty on Monday and Thursday nights until 8:30 P.M.

Tests are administered by the counselors on a group or individual basis for admission, placement, career development, and personal problem solving (interest inventories or personal interviews). Test results are available and are interpreted by the counselors at the request of faculty members or students.

Career Center

The Career Center assists students in career decision making, planning for marketability, and job search. There are no charges for the services offered.

The staff assists individuals in examining interests, aptitudes, and values. Interest inventories are available upon request. Individuals may also use **SIGI,** a computer-based guidance program. The center offers information on careers and their educational requirements. Career information includes personal qualities appropriate for each career field, job prospects, job locations, details on the nature of the work, salary ranges, and opportunities for advancement.

The Career Center staff conducts classes and workshops on the development of job seeking skills. Topics include: self awareness, career awareness, goal setting, decision making, job search strategy, resume writing, interview techniques and job survival skills.

Job Placement

The Placement Office provides job placement service for PCC students and graduates. It maintains up-to-date information of occupational openings from private, government and educational institutions. These jobs are listed according to academic majors and are available to students and alumni.

Health Services

Pitt Community College maintains no health facilities other than first aid supplies, which are located in the office of the dean of students and in the laboratories and shops. The responsibility for medical services rests with students and their parents or guardians. Emergency facilities are available at Pitt Memorial Hospital. Entering students are required to answer the health questionnaire on the application for admittance form. Student accident insurance is available at a cost of $9.00 per year.

Food Service

The College has a hot food service operated in the student lounge. Hot sandwiches, other short-order items, and fountain drinks are available in the student lounge. Also, vending machines for soft drinks, cigarettes, and sundries are located in each building.

Housing

The College does not provide housing facilities for students either on or off campus. It does, however, maintain a list of housing available in the Greenville area. In addition, the services of the director of housing at East Carolina University are available on a space-available basis to students. There is no other involvement on the part of the College. Students are responsible for obtaining their own housing.

Student Government Association

Pitt Community College has a Student Government Association. Each curriculum has one representative and one alternate in the Association. Officers are elected from this body annually. Activities supported by the SGA include the Pitt Community College athletic teams, field days, dances, cookouts, community projects, and intramural sports.

Air Force ROTC

All students enrolled in a two-year college transfer or technical associate degree program as full-time students are eligible candidates for enrollment in the East Carolina University Air Force ROTC program by cross-town agreement. Students will receive two credit hours per quarter or six credit hours per year which could apply as electives toward degree requirements at Pitt Community College dependent on the program. If students should desire to continue their education beyond the associate degree program and transfer to ECU, they would receive four semester hours of ROTC credit per year. This opportunity is for both male and female students who meet AFROTC screening requirements.

AFROTC classes are presently held on the campus of ECU. Uniforms are furnished at no cost to students. There will not be additional tuition charged for students who are full-time.

Interested students should contact Student Services at Pitt Community College for more information.

Identification Cards

All day students must secure an ID card from the counselors' office during the second or third week of each quarter. This card will admit students to social, cultural, and educational events that are sponsored by the College.

Gamma Beta Phi

Gamma Beta Phi is an honor society chartered in 1975. Membership is based upon a GPA of 3.0. Gamma Beta Phi comes under the supervision of the SGA.

Student Publications

Pitt Community College publishes the following:

- College Catalog
- Student Handbook
- Program Brochures
- New Student Information Guide

- Co-Op Newsletter
- PCC Newsclips

Guided Tours

Many groups visit Pitt Community College during the year for the purpose of investigating the facilities and opportunities available in vocational, technical, and college transfer education.

Groups are assembled in the lobby where they are greeted by the dean of students. Large groups are divided into smaller groups and taken on a guided tour of the College. All programs are explained to the groups as the tour progresses. In addition to seeing classes and shops, the groups are also taken to the Learning Resources Center and the Learning Center.

Class Rings

All orders for class rings will be made with the dean of students. Notices will be posted relevant to dates for measurements. Students are urged to be prompt when making these orders.

TRAFFIC REGULATIONS

All automobiles operated on the campus by day students and College personnel must be registered with the chief of security. Parking permits are issued for each registered vehicle and must be displayed on the rear bumper, left side. The operators of automobiles on the campus are subject to specific parking and traffic regulations. The College reserves the right to withdraw the privilege of operating an automobile on the campus for failure to abide by the regulations.

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.

FIRE DRILLS

Fire drills will be held once a quarter. The fire alarm consists of a pulsating, repeated sounding of a bull horn. Personnel will exit at the outside door closest to where they are at the time the alarm is sounded and proceed in an orderly manner to a safe distance from the building. The all clear signal is a long sounding of the bell system.

STUDENT RIGHTS AND RESPONSIBILITIES

Students are responsible for the 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 that of the student.

Students are required to have knowledge of and observe all regulations pertaining to campus life and student behavior. They are responsible for maintaining communications with Pitt Community College by keeping on file with the registrar's office at all times their current address and telephone number.

Copies of the Rights and Freedoms of Students can be obtained from the office of the dean of students.

DISCIPLINARY ACTION

Student Conduct

It is expected that at all times the student will conduct himself as a responsible adult. 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 possession and/or 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 Pitt Community College campus will not be tolerated. Any violation of these regulations may result in expulsion from the College. In addition, any infraction which is a violation of N. C. law may be turned over to the local authorities.

Due Process

Students who question the fairness of disciplinary action taken against them are entitled to due process by submitting a written notice of appeal. The appeal is heard by the Hearing Committee (Judicial Review Board), which is composed of the President and the Vice-President of the Student Government Association and two faculty members appointed by the President of the College. The decision of the committee is final, subject only to the student's right of appeal to the President of the College or ultimately to the Board of Trustees. Additional information may be obtained from the dean of students.

Dismissal

A student may be dismissed from a class or from the College for conduct or personal habits which are not in the best interest of the student and of the College.

Information on dismissal and reinstatement procedure may be obtained from the office of the dean of students.

The provisions of due process will be applicable to all actions involving suspensions, extensions, probation, and dismissal.

LEARNING RESOURCES CENTER

The Learning Resources Center (LRC) at Pitt Community College includes Library Services, Audiovisual Services, and Media Production Services. The primary purpose of the LRC is to provide learning resources and services to support and enrich the educational programs of the College. These resources and services are available to students, faculty, and staff of Pitt Community College and to the adult citizens of Pitt County.

LRC resources and services include a wide variety of print and nonprint materials, technical equipment, supportive facilities, and specialized services. The print materials collection includes books, magazines, newspapers, pamphlets, government publications, and other printed materials. Audiovisual materials in the LRC collection include films, filmstrips, filmloops, transparencies, slides, audio and video tapes, and records. Microfilm copies of back issues of selected magazines and newspapers and certain historical records of the Pitt County area are also available for use in the LRC. Equipment needed for the utilization and duplication of certain instructional materials is provided by the LRC.

A staff of professional librarians, media specialists, technicians, and assistants provide instruction and assistance in the use of LRC materials, equipment, and services at all hours the LRC is open.

The LRC is open Monday through Thursday from 7:45 A.M. to 9:30 P.M. and on Friday from 7:45 A.M. to 4:00 P.M. (closed Saturdays, Sundays, and holidays). Located on the third floor of the Humber Building (easily reached by elevator), the LRC is arranged and furnished to provide a pleasant atmosphere conducive to study and to leisure-time use of the variety of resources and services available.

COOPERATIVE EDUCATION (Co-Op)

The Cooperative Education Program is designed to give students the opportunity to integrate their classroom study with practical experience in their major field. This is done by working and attending school in optional plans.

Eligibility

All students who are enrolled in programs offering Cooperative Education for academic credit and who have completed one quarter or who are already employed in work-related jobs are eligible to enter the Cooperative Education Program provided they meet the following requirements:

1. Students must have a 2.0 GPA, and/or approval of the department chairman and cooperative education director.
2. Students must plan to graduate from Pitt Community College.

Application Procedure

Students who are interested in the Cooperative Education Program should follow the procedure outlined below:

1. The student will obtain an application form from the cooperative education office and make an appointment with the co-op office to review the application.
2. The director or the coordinator will conduct an interview with the student with regard to his career goals and possible cooperative assignments.
3. If the student is accepted, the director of cooperative education with the assistance of the department chairman or advisor will be a prime resource in locating an appropriate training position.

Academic Credit

A. One (1) credit hour will be given for the satisfactory completion of each quarter's cooperative training assignment of each ten hours per week. Grade assignments will be based on reports and evaluations submitted by the student, the employer, and the faculty advisor. reports of credit will be made to the registrar's office by the director of cooperative education.

B. Cooperative Education is a part of the instruction in approved programs for the number of credit hours provided by Curriculum Standards of the Department of Community Colleges. Co-op may substitute for an elective or major course on a credit-for-credit basis.

Students interested in cooperative education should visit the Co-Op office or contact their faculty advisor.

CONTINUING EDUCATION

The Continuing Education Division at Pitt Community College is committed to serve adults from the general community, business, and industry. Various programs are offered for the individual to meet particular needs and interests. Opportunities exist to upgrade occupational skills, to acquire new skills, to complete high school, and to pursue activities for personal enrichment.

Classes are held on campus and in off-campus facilities such as public schools, community buildings, churches, civic centers, industrial plants, and fire stations.

Each course is open to adults who are not enrolled in a secondary school. However, high school students 16 years or older are permitted to enroll with approval from the appropriate public school official.

Schedule of Courses

A schedule of Continuing Education classes is published quarterly and distributed throughout Greenville and surrounding areas. Classes are organized upon demonstration of sufficient interest and availability of the required facilities and instructors. Newspaper, radio, and television are utilized to announce course offerings. Classes are usually held from 7:00 P.M. to 10:00 P.M.; however, classes can be scheduled for mornings or afternoons.

Course Credit

Generally courses offered in Continuing Education are noncredit; however, credit will be given in the Adult High School Diploma Program. CEU's (Continuing Education Units) are also awarded for certain courses and seminars. (Ten contact hours of class earn one CEU.) Written acknowledgement of course completion or participation may be provided to individuals upon request.

Registration and Attendance

Registration for classes is normally completed at the first class meeting on a first-come, first-served basis. A minimum of 14 persons is usually needed to begin classes. If regular attendance falls below six people, the class may be discontinued.

Fees

A small registration fee is required for all noncredit courses (for Adult Driver Training there is an additional fee) and must be paid at the first class meeting. There is no charge for registration to senior citizens 65 years of age or older. Accident insurance is available to all students. Students in laboratory courses requiring the use of equipment and machinery must either purchase insurance or sign a waiver form.

Veterans Benefits

Information regarding veterans benefits may be found in the appropriate section of this publication. For additional information, contact the veterans affairs officer: telephone 756-3130, extension 260. After 5:00 P.M., visit Room 113 in the Humber Building or telephone 756-3130, extension 238.

Course Descriptions

Course descriptions are available upon request by calling or visiting the Division of Continuing Education. Individuals who desire counseling or other special assiatance may contact either the instructor or the directors in the Continuing Education Division.

Books and Supplies

Most Continuing Education courses do not require textbooks. When a text is required, students will be notified at the first class meeting. Students are generally responsible for their class supplies.

General Adult Education

The General Adult Education Program consists of noncredit courses which enable the adult to develop a skill or an art in an area of interest.

Adult Basic Education

Adult Basic Education is designed to improve the reading and math skills of persons who seek self improvement through organized classes. The goal of the program is to help the student function more effectively in the environment. Classes may be established throughout the Pitt County area and may be co-sponsored with churches, schools, or community organizations. Groups interested in developing a class (at least 10 people), may contact the adult basic education coordinator at Pitt Community College. There are no charges for the classes or materials.

Adult High School Equivalency

The Adult High School Equivalency program is designed to prepare the adult to take the state high school equivalency test, the General Educational Development Test (GED). Adults may enroll in morning, afternoon, or evening classes at specified locations in the Greenville and Pitt County area. Program content covers English expression, literature, mathematics, social studies, and natural science. There is a $5.00 tuition fee, and students may be required to purchase instructional materials.

The GED test program, through which adults may earn a high school equivalency diploma, is administered in the Learning Center by appointment. The state of North Carolina requires a $5.00 fee to take the GED. Telephone 756-3130, extension 231, or come by the Learning Center in Room 2 of the White Building.

General Interest Offerings.

The following are examples of general interest courses:

Art: Painting, Drawing, and Sketching
Arts and Crafts
Auto Care and Tune-up
Banking and Decorations
Calligraphy
Conversational French, German, Spanish
Creative Writing
Crewel Embroidery
Crochet
Investments and Securities
Knitting
Macrame
Needlepoint
Prenatal Education (Lamaze Method of Prepared Childbirth)
Pottery
Rug Hooking
Seasonal Decorations
Sewing
Sign Language
Spinning and Natural Dyes
Weaving

The Learning Center

The Learning Center offers courses for adult enrichment, adult high school and preparation for Pitt Community College placement tests. The Learning Center is also used by persons preparing for the high school diploma equivalency tests. Students in the Learning Center use programmed books and audiovisual materials and may receive assistance from a coordinator as needed. Flexible scheduling is available to meet the needs of the adult students. The Learning Center hours are the designated Pitt Community College hours. Coordinators are available at all times to evaluate, advise, and aid students in their progress.

High School Equivalency

Adult residents of North Carolina who have not completed high school may earn a High School Diploma Equivalency by passing a battery of five tests. These tests, the General Educational Development tests, are also known as the high school diploma equivalency tests.

A High School Diploma Equivalency is recognized by employers and educational institutions and is issued by the North Carolina Department of Community Colleges. Pitt Community College is one of 71 official GED testing centers in the state and is the only one in Pitt County.

Persons interested in further information or in taking the GED tests should contact the Learning Center. The center administers the tests by appointment. There is a $5.00 fee for taking the GED tests.

Adult High School Diploma Program

The Adult High School Diploma program provides instruction designed to qualify a student for a Greenville City/Pitt County Schools diploma. To enter, a coordinator explains the procedures and options and also conducts or schedules admission tests. The results of the tests are reviewed, and the appropriate level of instruction is identified.

Students must successfully complete all required courses and pass the N.C. Competency Tests in order to receive the diploma.

Occupational Extension

Occupational courses are offered for employed persons needing to upgrade their skills or for persons seeking employment at the skilled technical and vocational level.

General Occupational Courses

The following are examples of general occupational courses:

Arc Welding
Automotive Repair
Aviation Ground School
Basic Blueprint Reading
Basic Electricity
Basic First Aid
Brick Masonry
Estimating for the Building Trades
Fundamentals of Real Estate
Handyman Bricklaying
Home Plumbing Repair
Household Appliance Repair
Ornamental Horticulture
Outboard Motor Repair
Real Estate Appraisal
Secretarial Refresher
Small Engine Repair
Speedwriting
Tobacco Auctioneering
Tobacco Ticket Marketing
TV Service and Repair
Woodworking and Cabinetmaking

Specialty Occupational Programs

Fire Service Training

Fire Service Training is designed to provide firemen the opportunity to gain technical information and skill in modern fire fighting through a variety of learning experiences. Usually these courses are conducted in the local fire departments for the volunteer firemen, who train as an organized group utilizing equipment and methods they would ordinarily use in preventing and suppressing fire.

Some of the subject areas for volunteer firemen are as follows: arson detection, compressed gas emergencies, fire apparatus practices, hazardous materials, introduction to fire fighting, ladder practices, hose practices, protective breathing equipment, and fire fighting procedures.

Courses such as Home Safety, Fire Prevention, and Industrial Fire Brigade Training are available to the public and industry as well as fire service personnel.

Hospitality Training

This program is provided to train hotel-motel managers, food service personnel, waiters, waitresses, cooks, and maids or any other individual or group in the hospitality field.

Hospitality education has three objectives: (1) to develop, within individuals, skills that will qualify them for better employment opportunities in the hospitality field; (2) to provide employers with well-trained personnel to operate their businesses; and (3) to provide better hospitality. Some of the courses are as follows: Front Office Procedures, Human Relations, Communication, Basic Nutrition and Menu Planning, Overview of School Food Service, Use and Care of Equipment, Quantity Cooking, and Quantity Food Preparation.

Law Enforcement Training

Several short courses and seminars are conducted to upgrade and train law enforcement offiers. Some courses are as follows: Introduction to Police Science, Courts and Law, Laws of Arrest, Search and Seizure, and General Criminal Investigation.

The College also offers two-year associate degrees in criminal justice.

Management Development Training

Management Development Training Courses are designed for potential and active supervisors who want to prepare for more effective leadership and advancement. Courses are offered both on and off campus. The courses are flexible in terms of content and meeting times. Every effort is made to fit course content to particular individual, industrial, or business needs.

Some of the courses are:

Principles of Supervision
Economics and Management
Economics in Business and Industry
Creative Thinking
Supervisory Techniques
Effective Communication
Employee Evaluation and Interviewing
Conference Leadership Training
Effective Writing
Motivation Techniques

Professional In-Service Programs

Teacher Certificate Renewal: Local superintendents responsible for providing in-service upgrading and training for teachers coordinate with the division of continuing education to develop special courses designed to meet the needs of the local school unit. The division assists in the development and presentation of approved courses by providing needed personnel, facilities and services in coordination with the local school unit.

Other Professional In-Service: Various institutions and agencies require employee upgrading through the offering of in-service classes. The division of continuing education coordinates with each

agency to develop the in-service program most appropriate to its needs.

Special Industrial Training

Classes may be in the immediate area in which the industry is located.

In addition, special classes may be developed for training of personnel for a new industry locating in the area or an expanding industry.

Courses are designed to meet specific group needs. New programs and classes are scheduled at the time and place convenient to the interested group or individuals.

For information and assistance in developing occupational extension classes, call the assistant dean for continuing education.

Workshops, Seminars, and Conferences

Workshops, seminars, and conferences are planned and offered by Pitt Community College on a variety of topics in cooperation with civic groups, nonprofit organizations, or by special request from the citizens of Pitt County.

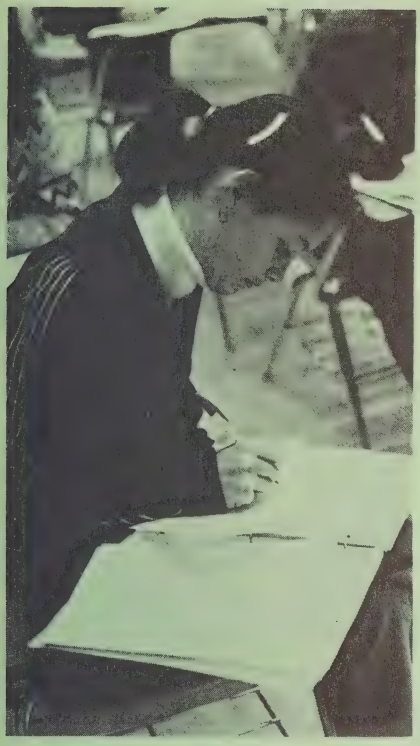
The workshops and seminars may carry CEU credit if arrangements have been made in advance with Pitt Community College, and if participants meet necessary requirements for receiving credit.

The Visiting Artist Program

The Visiting Artist Program is a cooperative effort between the North Carolina Arts Council and the Department of Community Colleges. Pitt Community College is one of the many institutions throughout the state which employs full-time artists representing a variety of different art forms.

The purpose of the program is to enhance the appreciation and cultivation of the arts within the College and the surrounding areas. This unique program presents to students, faculty, and the community at large an opportunity to experience first hand the work of creative and performing artists.

During the residency, the artist presents performances, lectures, demonstrations, and workshops as well as providing assistance to organizations such as civic clubs, public schools, arts councils, and church groups. The artist also organizes exchange programs with artists from other schools in the Visiting Artist Program in order to bring a variety of artistic experience to the College and community.



COLLEGE TRANSFER

REQUIREMENTS FOR THE ASSOCIATE IN ARTS DEGREE

The Associate in Arts degree is awarded upon completion of at least 96 quarter hours of credit with an overall grade point average of 2.0 (C) or better, to include:

	Credit Hours
COMMUNICATIONS Composition and library science	11
HUMANITIES AND FINE ARTS Literature, philosophy, religion, foreign language, art, drama, speech, and music	15
MATHEMATICS	5
SCIENCE Courses, at least one of which is to include laboratory experience, will be chosen from areas such as astronomy, biology, chemistry, geology, and physics	12
SOCIAL SCIENCE History, anthropology, economics, geography, sociology, political science, and psychology	20
HEALTH AND PHYSICAL EDUCATION	5
*ELECTIVES	28
TOTAL CREDIT HOURS FOR DEGREE	96

*Electives should be selected on the basis of the student's major field of study and on the requirements of the institution to which the student intends to transfer.

PRE-BUSINESS ADMINISTRATION

Pre-Business Administration is designed for those students who wish to transfer to a senior college or university to pursue majors in the areas of accounting, banking, business administration, economics, finance, management, marketing, quantitative methods, or real estate. Degree plans may vary according to requirements of the senior institution.

PRE-BUSINESS ADMINISTRATION CURRICULUM BY QUARTERS

			C	L	CH
FIRST QUARTER		**COURSE TITLE**			
*ENG	150	Composition I	3	0	3
HEA	150	Personal and Community Health	3	0	3
PSY	150	General Psychology I	4	0	4
BUS	165	Introduction to Business	5	0	5
or		**Elective	—	—	—
			15	0	15
SECOND QUARTER					
ENG	151	Composition II	3	0	3
*MAT	150	College Algebra	5	0	5
LIB	150	Library Research Skills	2	0	2
SOC	150	Sociology I	5	0	5
		**Social Science Elective	2	0	2
			17	0	17
THIRD QUARTER					
ENG	152	Composition III	3	0	3
		**Fine Arts Elective	3	0	3
EDP	150	Introduction to Computers	5	0	5
SPH	150	Voice and Diction			
or					
SPH	160	Public Speaking	3	0	3
		**Physical Education Elective	0	2	1
			14	2	15
FOURTH QUARTER					
		**Humanities Elective	3	0	3
		**Science Elective	3	2	4
ECO	150	Economics I	3	0	3
ACT	150	Principles of Accounting	3	2	4
		**Physical Education Elective	0	2	1
			12	6	15

FIFTH QUARTER		COURSE TITLE	C	L	CH
		**Humanities Elective	3	0	3
		**Science Elective	3	2	4
ECO	151	Economics II	3	0	3
ACT	151	Principles of Accounting	3	2	4
BUS	166	Business Law I	3	0	3
			15	4	17

SIXTH QUARTER					
		**Science Elective	3	2	4
ACT	152	Principles of Accounting	3	2	4
BUS	167	Business Law II	3	0	3
ECO	152	Economics III	3	0	3
		**Humanities Elective	3	0	3
			15	4	17

TOTAL CREDIT HOURS FOR DEGREE 96

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

MAT 099, 100R, 100, 101, ENG 091, 092, 093, 094, 100G, 100A, 101; ORI 150.

**Students enrolled in this curriculum may select additional elective credits from approved college transfer courses and make course substitutions from such college transfer courses on a credit-for-credit basis upon approval by the student's department chairperson.

****RECOMMENDED ELECTIVES:**

Fine Arts: ART 160, 170; ENG 270; MUS 150
Humanities: ENG 250, 251, 260, 261; PHI 150; REL 150, 160, 161
Physical Education: PED 150, 160-184, 196
Science: BIO 250, 251, 252; CHM 250, 251, 252; PHY 260, 261, 262
Social Science: ANT 150, 160; GEO 150; HIS 150, 151, 160, 161; POL 150; PSY 151, 160, 170, 180; SOC 160, 170
General: EDU 250; ENG 271, 272, 273, 274, 275; MAT 151, 180

For information pertaining to cooperative education credits, see page 55.

PRE-EDUCATION (SECONDARY)

Pre-Education (Secondary) is designed for students who plan to transfer to senior institutions and major in secondary education and then teach in high school. Students take the same coures as pre-liberal arts students, with elective hours chosen in the area of major interest.

PRE-EDUCATION (SECONDARY) CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	CH
*ENG	150	Composition I	3	0	3
HEA	150	Personal and Community Health	3	0	3
		**Social Science Electives	8	0	8
			14	0	14
SECOND QUARTER					
ENG	151	Composition II	3	0	3
		**Social Science Electives	8	0	8
*MAT	150	College Algebra	5	0	5
LIB	150	Library Research Skills	2	0	2
			18	0	18
THIRD QUARTER					
ENG	152	Composition III	3	0	3
		**Fine Arts Elective	3	0	3
		**Humanities or Fine Arts Elective	3	0	3
		**Social Science Elective	4	0	4
		**Physical Education Elective	0	2	1
			13	2	14
FOURTH QUARTER					
		**Humanities Elective	3	0	3
		**Science Elective	3	2	4
		**Physical Education Elective	0	2	1
		**Electives	9	0	9
			15	4	17
FIFTH QUARTER					
		**Humanities or Fine Arts Elective	3	0	3
		**Science Elective	3	2	4
		**Electives	10	0	10
			16	2	17
SIXTH QUARTER					
		**Science Elective	3	2	4
		**Humanities or Fine Arts Elective	3	0	3
		**Electives	9	0	9
			15	2	16

TOTAL CREDIT HOURS FOR DEGREE 96

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

MAT 099, 100R, 100, 101; ENG 091, 092, 093, 094, 100G, 100A, 101, 101A; ORI 150.

**Elective credits should be selected based on the student's prospective teaching field.

RECOMMENDED ELECTIVES:

Fine Arts: ART 160, 170; ENG 270; MUS 150; SPH 150, 160
Humanities: ENG 250, 251, 260, 261; PHI 150; REL 150, 160, 161
Physical Education: PED 150, 160-184, 196
Science: BIO 250, 251, 252; CHM 250, 251, 252; PHY 260, 261, 262
Social Science: ANT 150, 160, ECO 150, 151, 152; GEO 150; HIS 150, 151, 160, 161; POL 150; PSY 150, 151, 160, 170, 180; SOC 150, 160, 170
General: ACT 150, 151, 152; BUS 165, 166, 167; EDP 150, EDU 250; ENG 271, 272, 273, 274, 275; MAT 151, 180

For information pertaining to cooperative education credits, see page 55.

PRE-LIBERAL ARTS

The Pre-Liberal Arts curriculum is designed for students who intend to transfer to a senior college for their four-year degrees and for people who wish a liberal arts education ending in a two-year degree. Students take general college courses, including courses in English, math, biology, speech, health, physical education, and social science such as psychology, sociology, and history. Because the program is general, many students who have not decided on a major select pre-liberal arts. Adjustments can be made to meet the general education requirements of most colleges and universities.

PRE-LIBERAL ARTS
CURRICULUM BY QUARTERS

				C	L	CH
FIRST QUARTER		**COURSE TITLE**				
*ENG	150	Composition I		3	0	3
HEA	150	Personal and Community Health		3	0	3
		**Social Science Electivess		8	0	8
				14	0	14
SECOND QUARTER						
ENG	151	Composition II		3	0	3
*MAT	150	College Algebra		5	0	5
LIB	150	Library Research Skills		2	0	2
		**Social Science Electives		8	0	8
				18	0	18
THIRD QUARTER						
ENG	152	Composition III		3	0	3
		**Fine Arts Elective		3	0	3
		**Social Science Elective		4	0	4
		**Physical Education Elective		0	2	1
		**Humanities or Fine Arts Elective		3	0	3
				13	2	14
FOURTH QUARTER						
		**Humanities Elective		3	0	3
		**Science Elective		3	2	4
		**Physical Education Elective		0	2	1
		**Electives		9	0	9
				15	4	17
FIFTH QUARTER						
		**Humanities or Fine Arts Elective		3	0	3
		**Science Elective		3	2	4
		**Electives		10	0	10
				16	2	17

SIXTH QUARTER COURSE TITLE	C	L	CH
**Science Elective	3	2	4
**Humanities or Fine Arts Elective	3	0	3
**Electives	9	0	9
	15	2	16

TOTAL CREDIT HOURS FOR DEGREE 96

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

MAT 099, 100R, 100, 101; ENG 091, 092, 093, 094, 100G, 100A, 101, 101-A; ORI 150.

****RECOMMENDED ELECTIVES:**

Fine Arts: ART 160, 170; ENG 270; MUS 150; SPH 150, 160
Humanities: ENG 250, 251, 260, 261; PHI 150; REL 150, 160, 161
Physical Education: PED 150, 160-184, 196
Science: BIO 250, 251, 252; CHM 250, 251, 252; PHY 260, 261, 262
Social Science: ANT 150, 160; ECO 150, 151, 152; GEO 150; HIS 150, 151, 160, 161; POL 150; PSY 150, 151, 160, 170, 180; SOC 150, 160, 170
General: ACT 150, 151, 152; BUS 165, 166, 167; EDP 150; EDU 250; ENG 271, 272, 273, 274, 275; MAT 151, 180

For information pertaining to cooperative education credits, see page 55.

TECHNICAL EDUCATION

ACCOUNTING

Opportunities in accounting are increasing. With the increasing population, the industrial development, and the growth in large and small businesses in North Carolina, the need for competent accountants is rapidly increasing.

The Accounting curriculum is designed to help students take advantage of these employment opportunities. Students are given training in the accounting theories and skills necessary for entry into the accounting profession.

The Accounting curriculum aims to develop the following competencies:

1. Understanding of the principles of organization and management in business operations;
2. Ability to practice accounting, including tax and cost accounting;
3. Knowledge in specific elements of business law, finance, economics, and data processing;
4. Knowledge of human relations as they apply to successful business operations in a rapidly expanding economy; and
5. Understanding and skill in effective communication for business.

Graduates in accounting may qualify for any of the following positions: accounting clerk, payroll clerk, ledger accountant, junior auditor, and junior cost accountant. This training plus further work experience should prepare students to become office managers, accounting supervisors, and to fill other responsible positions in a business firm. Job opportunities are also available in federal, state, and local government offices.

ACCOUNTING
CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	CH
ACT	150	Principles of Accounting	3	2	4
BUS	165	Introduction to Business	5	0	5
ECO	150	Economics I	3	0	3
*ENG	101	Grammar	3	0	3
*MAT	110	Business Mathematics	5	0	5
			19	2	20
SECOND QUARTER					
ACT	151	Principles of Accounting	3	2	4
BUS	102	Beginning Typewriting	2	3	3
BUS	166	Business Law I	3	0	3
ECO	151	Economics II	3	0	3
ENG	102	Composition	3	0	3
			14	5	16

THIRD QUARTER		COURSE TITLE	C	L	CH
ACT	152	Principles of Accounting	3	2	4
BUS	110	Electronic Calculator	2	2	3
BUS	167	Business Law II	3	0	3
EDP	115	FORTRAN	2	4	4
ENG	204	Oral Communications	3	0	3
			13	8	17
FOURTH QUARTER					
BUS	222	Intermediate Accounting	5	0	5
BUS	229	Taxes	3	2	4
BUS	235	Business Management	3	0	3
EDP	112	Introduction to Microcomputers and Programming	2	2	3
ENG	103	Report Writing	3	0	3
			16	4	18
FIFTH QUARTER					
BUS	123	Business Finance	3	0	3
BUS	223	Intermediate Accounting	5	0	5
BUS	225	Cost Accounting	3	2	4
BUS	268	Auditing Theory	3	0	3
ENG	206	Business Communication	3	0	3
			17	2	18
SIXTH QUARTER					
BUS	226	Payroll Accounting	3	2	4
BUS	224	Intermediate Accounting	5	0	5
BUS	269	Auditing	3	0	3
		**Elective	3	0	3
			14	2	15

TOTAL CREDIT HOURS FOR DEGREE 104

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 094, 100G, 100A, 101-A, 102-A; MAT 099, 100R.

**Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

BUS 103, 112, 155 or 231, 219, 227, 247; ECO 108; EDP 113; ENG 105, 106; POL 102, 103; PSY 102, 206; SOC 102, 103; SSC 101; COE 100

For information pertaining to cooperative education credits, see page 55.

AGRICULTURAL BUSINESS TECHNOLOGY

Many responsible positions in agricultural business and industries require technical training not available in high school or in four year colleges. The Agricultural Business Technology Curriculum is designed to help students acquire knowledge, understanding, and abilities in the broad field of agriculture with business training to prepare the graduate for many of the varied employment opportunities in agriculture.

Successful completion of this curriculum should enable persons to assume responsibilities in an agricultural firm and should enable them to advance within such a business. Upon graduation from this curriculum, an individual should qualify for various jobs in agricultural business and industry, such as salesperson or store manager in farm supply stores; agricultural field serviceperson; salesperson, demonstrator, or plant manager of feed and food companies; farm products inspector; or salesperson or office managers of farm products marketing firms.

AGRICULTURAL BUSINESS TECHNOLOGY CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	CH
*ENG	101	Grammar	3	0	3
*MAT	100	Review of Fundamental Mathematics	5	0	5
AGR	125	Animal Science	5	2	6
AGR	255	Landscaping Principles and Practices	3	2	4
			16	4	18
SECOND QUARTER					
ENG	102	Composition	3	0	3
AGR	185	Soil Science and Fertilizers	5	2	6
ACT	150	Principles of Accounting	3	2	4
		**Agricultural Elective	3	2	4
			14	6	17
THIRD QUARTER					
ENG	204	Oral Communications	3	0	3
EDP	112	Introduction to Microcomputers and Programming	2	2	3
AGR	170	Plant Science	5	2	6
AGR	225	Agricultural Pollution Control	3	2	4
BUS or BUS	102 103	Beginning Typewriting Intermediate Typewriting	2	3	3
			15	9	19

FOURTH QUARTER		COURSE TITLE	C	L	CH
ENG	103	Report Writing	3	0	3
AGR	278	Weed Identification and Control	3	2	4
BUS	232	Sales Development	3	0	3
AGR	205	Agricultural Marketing	3	2	4
CHM	101	Chemistry	4	2	5
			16	6	19
FIFTH QUARTER					
AGR	119	Techniques of Welding	2	3	3
AGR	204	Agricultural Economics and Farm Records	3	2	4
AGR	247	Pesticides and Their Use in Home and Community	3	2	4
		**Business Elective	3	0	3
		**Social Science Elective	3	0	3
			14	7	17
SIXTH QUARTER					
AGR	203	Pesticide and Fertilizer Application	3	2	4
BUS	110	Electronic Calculator	2	2	3
AGR	245	Crop Insects	3	2	4
		**Social Science Elective	3	0	3
			11	6	14

TOTAL CREDIT HOURS FOR DEGREE 104

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 100G, 100A, 101-A, 102-A; MAT 099, 100R.

**Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

Agricultural: AGR 218, 272, 273, 279, 290, 296
English: ENG 105
Environmental: ENV 101, 103
Social Science: AGR 296; ECO 108; PSY 101, 102, 206; SOC 101, 102, 103; SSC 101; COE 100
Business: BUS 103, 123, 154, 166, 167, 231, 235, 239, 272; ACT 151

For information pertaining to cooperative education credits, see page 55.

AGRICULTURAL CHEMICALS TECHNOLOGY

Pitt Community College was selected by the North Carolina State Board of Education to offer this curriculum, and it has been equipped with facilities consistent with needs reflected through an active industrial advisory committee. This curriculum is the only one of its kind in the state and one of 15 in the nation. It is widely supported and advised by related industries statewide. The program will prepare a graduate with a sound, well-rounded background that offers to industry a semiprofessional employee who, with normal on-the-job orientation, can actively execute the many technical task demanded by this field of endeavor. Specific objectives of this curriculum are to develop the following student competencies:

1. Understanding the basic agricultural sciences such as crop production and pest control in their application to farming;
2. Understanding applied chemistry within the agricultural chemicals industry;
3. Understanding business organizations, procedures, and management of firms producing, marketing, and applying agricultural chemicals; and
4. Understanding the formulation and use of farm chemicals and their relation to profitable agricultural production, including safety procedures.

A broad base of general technical courses is combined with selected courses in weed control, entomology, pathology, and chemistry to give balance over a broad area with emphasis on particular chemical skills.

AGRICULTURAL CHEMICALS TECHNOLOGY CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	CH
*ENG	101	Grammar	3	0	3
*MAT	100	Review of Fundamental Mathematics	5	0	5
AGR	125	Animal Science	5	2	6
AGR	255	Landscaping Principles and Practices	3	2	4
			16	4	18
SECOND QUARTER					
ENG	102	Composition	3	0	3
AGR	185	Soil Science and Fertilizers	5	2	6
ACT	150	Principles of Accounting	3	2	4
CHM	102	Introduction to General Chemistry	4	2	5
		**Agricultural Electives	3	2	4
			18	8	22

THIRD QUARTER		COURSE TITLE	C	L	CH
ENG	204	Oral Communications	3	0	3
CHM	103	General Chemistry II	4	2	5
EDP	112	Introduction to Microcomputers and Programming	2	2	3
AGR	170	Plant Science	5	2	6
AGR	225	Agricultural Pollution Control	3	2	4
			17	8	21
FOURTH QUARTER					
ENG	103	Report Writing	3	0	3
AGR	278	Weed Identification and Control	3	2	4
BUS	232	Sales Development	3	0	3
AGR	205	Agricultural Marketing	3	2	4
CHM	106	Organic Chemistry	4	2	5
			16	6	19
FIFTH QUARTER					
AGR	119	Techniques of Welding	2	3	3
AGR	204	Agricultural Economics and Farm Records	3	2	4
AGR	247	Pesticides and Their Use in Home and Community	3	2	4
BUS or BUS	102 or 103	Beginning Typewriting or Intermediate Typewriting	2	3	3
	**	Social Science Elective	3	0	3
			13	10	17
SIXTH QUARTER					
AGR	203	Pesticide and Fertilizer Application	3	2	4
BUS	110	Electronic Calculator	2	2	3
AGR	245	Crop Insects	3	2	4
		**Social Science Elective	3	0	3
			11	6	14

TOTAL CREDIT HOURS FOR DEGREE **111**

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 100G, 100A, 101-A, 102-A; MAT 099, 100R.

**Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

Agricultural: AGR 218, 272, 273, 279, 290, 296
English: ENG 105
Environmental: ENV 101, 103, 104
Social Science: AGR 296; PSY 101, 102, 206; SOC 101, 102, 103; SSC 101; ECO 108; COE 100
Business: BUS 103, 123, 154, 166, 167, 231, 235, 239, 272; ACT 151

For information pertaining to cooperative education credits, see page 55.

AGRICULTURAL SCIENCE

The Agricultural Science curriculum provides a training program for developing the basic knowledge and skills needed for the successful operation and management of a general farming program involving crops and livestock. Agribusiness firms are seeking trained personnel with technical knowledge and skills in the agricultural sciences. Modern farm production units also require trained managers in economics, business management, and technical skills in production practices. The objective of the curriculum is to provide technically trained personnel for managerial positions in agribusiness, as well as managerial and operative skills in production agriculture.

AGRICULTURAL SCIENCE
CURRICULUM BY QUARTERS

			C	L	CH
FIRST QUARTER		**COURSE TITLE**			
AGR	135	Agricultural Law	3	0	3
AGR	190	Soils and Soil Fertility	2	2	3
			5	2	6
SECOND QUARTER					
AGR	206	Marketing Arm Products	3	0	3
AGR	127	Animal Nutrition	3	0	3
			6	0	6
THIRD QUARTER					
AGR	116	Farm Welding	2	2	3
AGR	280	Farm Forestry Management	2	2	3
			4	4	6
FOURTH QUARTER					
AGR	222	Farm Electrification	2	2	3
AGR	230	Plant Diseases	3	0	3
			5	2	6
FIFTH QUARTER					
AGR	235	Animal Disease	3	0	3
AGR	275	Introduction to Weed Identification and Control	2	2	3
			5	2	6
SIXTH QUARTER					
AGR	107	Farm Enterprise Management	3	0	3
AGR	260	Residential Landscaping	2	2	3
			5	2	6
SEVENTH QUARTER					
AGR	218	Agricultural Mechanization	3	0	3
AGR	105	Pasture and Forage Crops	3	0	3
			6	0	6

EIGHTH QUARTER		COURSE TITLE	C	L	CH
AGR	240	Insects of Agronomic Crops	2	2	3
AGR	150	General Horticulture	3	0	3
			5	2	6
NINTH QUARTER					
AGR	201	Agricultural Chemicals (Pesticides)	3	0	3
AGR	187	Fertilizers and Lime	3	0	3
			6	0	6
TENTH QUARTER					
*AGR	138	Agricultural Mathematics	3	0	3
AGR	285	Introduction to Soil and Water Conservation	3	0	3
			6	0	6
ELEVENTH QUARTER					
AGR	121	Crop Production	3	0	3
AGR	154	Swine Production	3	0	3
			6	0	6
TWELFTH QUARTER					
AGR	272	Tobacco Production	3	0	3
AGR	254	Plant Propagation	3	0	3
			6	0	6
THIRTEENTH QUARTER					
AGR	198	Practical Application of Agricultural Chemicals	2	2	3
AGR	297	Agricultural Policy and Programs	3	0	3
			5	2	6
FOURTEENTH QUARTER					
AGR	224	Agricultural Pollution Prevention and Management	2	2	3
AGR	207	Poultry Enterprises	3	0	3
			5	2	6
FIFTEENTH QUARTER					
AGR	227	Beef Production	3	0	3
AGR	112	Small Engine Repair	2	2	3
			5	2	6

TOTAL CREDIT HOURS FOR DEGREE 90

REQUIRED ENGLISH COURSES:

*ENG	101	Grammar	3	0	3
ENG	102	Composition	3	0	3
ENG	103	Report Writing	3	0	3
ENG	204	Oral Communications	3	0	3

TOTAL QUARTER HOURS 12

ELECTIVES:

Two Social Science Electives from the following:

PSY	102	General Psychology	3	0	3
PSY	206	Applied Psychology	3	0	3
SOC	102	Principles of Sociology	3	0	3
SOC	103	Social Problems	3	0	3
SSC	101	Introduction to Social Science	3	0	3

TOTAL QUARTER HOURS 6

TOTAL CREDIT HOURS FOR DEGREE 108

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 100G, 100A, 101-A, 102-A; MAT 099, 100R.

Upon approval of the department chairperson, the agricultural science student may make course substitutions on an credit-for-credit basis from the agricultural science courses listed below.

RECOMMENDED ELECTIVES:

Agricultural: AGR 103, 128, 149, 195, 215, 223, 273, 296

For information pertaining to cooperative education credits, see page 55.

ARCHITECTURAL DRAFTING TECHNOLOGY

Architectural drafting technicians are concerned with turning the architect's design sketches into complete and accurate working plans and detailed drawings, construction details, and mechanical equipment layouts and door, window, and room schedules and site plans. The drafting technician may be involved in work in areas such as industry, engineering, building construction, specification writing, construction models, or architectural rendering. The technician communicates the architect's designs to the builder in the form of working drawings.

Graduates should be competent drafting personnel, well informed on the building industry in general, the operation of architect's offices, and knowledgeable about materials and techniques of construction. Their training includes an appreciation of the mechanical, electrical, and structural aspects of buildings. Basic training in oral and written communication offers graduates a background for developing their potential in broader aspects of architectural practice, such as specification writing and supervision of construction.

ARCHITECTURAL DRAFTING TECHNOLOGY CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	CH
CIV	105	Architectural Materials and Mekthods I	3	3	4
ARC	106	Architectural Drafting	2	6	4
*ENG	101	Grammar	3	0	3
*MAT	101	Algebra I	5	0	5
		**Social Science Elective	3	0	3
			16	9	19
SECOND QUARTER					
ARC	107	Architectural Drafting	2	6	4
AHR	106	Architectural Mechanical Equipment	3	3	4
ENG	102	Composition	3	0	3
MAT	102	Trigonometry	5	0	5
PHY	101	Technical Physics	4	2	5
			17	11	21
THIRD QUARTER					
ARC	108	Architectural Drafting	0	9	3
DFT	236	Construction Estimating and Field Inspecting	3	3	4
ENG	204	Oral Communications	3	0	3
MAT	103	Algebra II	5	0	5
PHY	102	Technical Physics	4	2	5
			15	14	20

FOURTH QUARTER		COURSE TITLE	C	L	CH
ARC	201	Architectural Design I	3	9	6
CIV	106	Architectural Materials and Methods II	3	3	4
ARC	202	Environmental Design	2	3	3
			8	15	13

In lieu of the fourth quarter courses, students, with department chairperson's approval, may work as a cooperative education intern full time in a related area of employment. (Cooperative Education courses do not qualify for veterans' benefits.)

FIFTH QUARTER					
CIV	114	Statics	5	0	5
CIV	101	Surveying	2	6	4
ARC	220	Architectural Drafting	2	9	5
PHY	103	Technical Physics	4	2	5
ENG	103	Report Writing	3	0	3
			16	17	22

SIXTH QUARTER					
CIV	216	Strength of Materials	3	2	4
ARC	221	Architectural Drafting	2	9	5
DFT	235	Codes, Specifications, and Contract Documents	3	3	4
ARC	233	Office Practice Seminar	2	0	2
		**Social Science Elective	3	0	3
			13	14	18

SEVENTH QUARTER					
CIV	221	Reinforced Concrete Construction	3	2	4
ARC	222	Architectural Drafting	2	9	5
DFT	230	Structural Drafting	2	6	4
			7	17	13

TOTAL CREDIT HOURS FOR DEGREE 126

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 100G, 100A, 101-A, 102-A; MAT 100R, 100.

**Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

COE 100; EDP 112; ENG 105; PSY 101, 102, 206; SOC 101, 102, 103; SSC 101

For information pertaining to cooperative education credits, see page 55.

BANKING AND FINANCE

The purposes of the Banking and Finance curriculum are to prepare the individual to enter the banking and finance industries, to provide an educational program for the banking employee wanting to receive the American Institute of Banking certificates, and to provide an educational program to upgrade or retrain individuals presently employed in the banking or finance industry. These purposes will be fulfilled through study in areas such as banking and finance principles, theories and practices, teller operation, lending and collections procedures, financial analysis, and marketing and public relations.

This curriculum will provide the opportunity for an individual to enter a variety of banking or finance jobs in retail banks, commercial banks, government lending agencies, mortgage banks, and credit companies.

BANKING AND FINANCE
CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	CH
AIB	120	Accounting I	4	0	4
AIB	202	Principles of Bank Operation	4	0	4
ECO	150	Economics I	3	0	3
*ENG	101	Grammar	3	0	3
*MAT	110	Business Mathematics	5	0	5
			19	0	19
SECOND QUARTER					
AIB	111	Business Administration	4	0	4
AIB	121	Accounting II	4	0	4
AIB	210	Money and Banking	4	0	4
EDP	114	Introduction to Computer Concepts	3	0	3
ENG	102	Composition	3	0	3
			18	0	18
THIRD QUARTER					
AIB	205	Bank Management	4	0	4
AIB	212	Planning Management Development	0	2	1
AIB	214	Effective Speaking	4	0	4
AIB	231	Savings, and Time Deposit Banking	4	0	4
PSY	206	Applied Psychology	3	0	3
			15	2	16
FOURTH QUARTER					
AIB	203	Bank Investments	4	0	4
AIB	206	Bank Letters and Reports	4	0	4
AIB	208	Conference Planning and Leadership	0	2	1
AIB	219	Credit Administration	4	0	4
AIB	234	Loss Prevention	0	2	1
SOC	102	Principles of Sociology	3	0	3
			15	4	17

FIFTH QUARTER		COURSE TITLE	C	L	CH
AIB	209	Installment Credit	4	0	4
BUS	232	Sales Development	3	0	3
AIB	233	Analyzing Financial Statements	4	0	4
AIB	239	Bank Public Relations and Marketing	4	0	4
AIB	259	Law and Banking	4	0	4
			19	0	19

SIXTH QUARTER					
AIB	204	Bank Management by Objectives	0	2	1
AIB	213	Trust Functions	4	0	4
AIB	235	Loan and Discount	3	0	3
AIB	236	Home Mortgage Lending	4	0	4
AIB	272	Supervision and Personnel Administration	4	0	4
			15	2	16

TOTAL CREDIT HOURS FOR DEGREE 105

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 094, 100G, 100A, 101-A, 102-A; MAT 099, 100R.

**Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

AIB 123, 207, 232, 237; BUS 102, 110; COE 100; ENG 105

For information pertaining to cooperative education credits, see page 55.

BUSINESS ADMINISTRATION

The Business Administration curriculum is designed to prepare the student for employment in one of many occupations common to business. Training is aimed at preparing the student in administrative work that might be encountered in the average business.

The Business Administration curriculum aims to develop the following competencies:

1. Understanding of the principles of organization and management in business operations;
2. Understanding the economy through study and analysis of the role of production and marketing;
3. Knowledge in specific elements of accounting, finance, and business law;
4. Understanding and skill in effective communication for business; and
5. Knowledge of human relations as they apply to successful business operations in a rapidly expanding economy.

The graduate of the Business Administration curriculum may enter a variety of positions from beginning salesperson or office clerk to manager trainee. The duties and responsibilities of this graduate vary in different firms, including preparing and filing reports, tabulating and posting data in various books, sending out bills, checking calculations, adjusting complaints, operating various office machines, and assisting managers in supervising personnel.

BUSINESS ADMINISTRATION CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	CH
*ENG	101	Grammar	3	0	3
BUS	165	Introduction to Business	5	0	5
ECO	150	Economics I	3	0	3
*MAT	110	Business Mathematics	5	0	5
ACT	150	Principles of Accounting	3	2	4
			19	2	20
SECOND QUARTER					
ENG	102	Composition	3	0	3
ECO	151	Economics II	3	0	3
BUS	166	Business Law I	3	0	3
ACT	151	Principles of Accounting	3	2	4
BUS	102	Beginning Typewritting	2	3	3
		**Elective	3	0	3
			17	5	19

THIRD QUARTER		COURSE TITLE	C	L	CH
ENG	204	Oral Communications	3	0	3
BUS	167	Business Law II	3	0	3
ACT	152	Principles of Accounting	3	2	4
BUS	110	Electronic Calculator	2	2	3
		**Elective	3	0	3
			14	4	16
FOURTH QUARTER					
ENG	103	Report Writing	3	0	3
BUS	239	Marketing	5	0	5
BUS	232	Sales Development	3	0	3
BUS	235	Business Management	3	0	3
EDP	114	Introduction to Computer Concepts	3	0	3
			17	0	17
FIFTH QUARTER					
ENG	206	Business Communications	3	0	3
BUS	243	Advertising	3	2	4
BUS	123	Business Finance	3	0	3
EDP	112	Introduction to Microcomputers and Programming	2	2	3
			11	4	13
SIXTH QUARTER					
BUS	229	Taxes	3	2	4
BUS	271	Office Management	3	0	3
BUS	272	Principles of Supervision	3	0	3
EPD	113	Intermediate Programming for Microcomputers	2	2	2
		**Elective	3	0	3
			14	4	16

TOTAL CREDIT HOURS FOR DEGREE 101

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 094, 100G, 100A, 100-A, 102-A; MAT 099, 100R.

**Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

BUS 103, 112, 219, 222, 223, 225, 226, 231, 290A, 290B, 290C; ECO 108; ENG 105, 106; POL 102, 103; PSY 102, 206; SOC 102, 103; SSC 101; COE 100; INS 214, 215, 216

For information pertaining to cooperative education credits, see page 55.

COMMERCIAL ART AND GRAPHIC DESIGN

Surveys have shown an increase in the demand for graduates possessing training in the field of commercial art and graphic design. This curriculum will prepare graduates with broad backgrounds for technical and creative achievement throughout their professional lives. Design and illustration for commerce is continually advancing its standards; therefore, the background offered the students must be well developed to prepare them for performance on a contemporary, professional level. Graduates of this program will have an adequate background in illustration, layout and lettering, design, and production.

Equipped with professional competency and the potential for continuing growth and improvement, graduates are qualified for employment in advertising agencies, design studios, department stores, industrial advertising departments, government agencies, newspapers, television studios, and printing and publishing houses.

Their activities may include designing layouts and illustrations for printing; creating posters, sign boards, billboards, and show cards; or illustrating package designs. Such a career affords the individual an opportunity for creativity and continuing professional growth and improvement.

COMMERCIAL ART AND GRAPHIC DESIGN
CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	CH
BUS	102	Beginning Typewriting	2	3	3
CAT	102	Drawing I	1	4	3
CAT	107	Drafting for Art	1	3	2
CAT	121	Design I	3	6	6
*MAT	100	Review of Fundamental Mathematics	5	0	5
			12	16	19
SECOND QUARTER					
CAT	103	Drawing II	1	4	3
CAT	108	Drafting for Art	1	3	2
CAT	110	Art History to 1300	3	0	3
CAT	122	Design II	3	6	6
*ENG	101	Grammar	3	0	3
			11	13	17
THIRD QUARTER					
CAT	104	Drawing III	1	4	3
CAT	111	Art History Since 1300	3	0	3
CAT	123	Layout and Design I	2	6	5
ENG	102	Composition	3	0	3
PHO	116	Photography	2	4	4
			11	14	18

FOURTH QUARTER		COURSE TITLE	C	L	CH
CAT	109	Drawing IV	1	4	3
CAT	120	Illustration Techniques	1	4	3
ENG	204	Oral Communication	3	0	3
		**Social Science Elective	3	0	3
			8	8	12
FIFTH QUARTER					
CAT	210	Production Techniques	1	4	3
CAT	212	Advertising Illustration	1	4	3
CAT	224	Layout and Design II	3	6	6
ENG	103	Report Writing	3	0	3
PHO	217	Photography	2	4	4
			10	18	19
SIXTH QUARTER					
CAT	214	Type and Letter Form Design	1	4	3
CAT	213	Advertising Illustration	1	4	3
CAT	225	Graphic Design I	3	6	6
		**Social Science Elective	3	0	3
			8	14	15
***SEVENTH QUARTER					
CAT	218	Photomechanical Techniques	2	6	5
CAT	226	Graphic Design II	3	6	6
CAT	235	Portfolio Development	1	4	3
			6	16	14

TOTAL CREDIT HOURS FOR DEGREE 114

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 094, 100G, 100A, 101-A, 102-A; MAT 099, 100R.

**Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

CAT 250; ENG 105; PHO 218, 219, 220; PSY 102, 206; SOC 102, 103; SSC 101; COE 100

***In lieu of seventh quarter courses, students, with department chairperson's approval, may work full-time as a cooperative education intern in a related area of employment. (Co-op Education courses do not qualify for veterans' benefits.)

For information pertaining to cooperative education credits, see page 55.

CRIMINAL JUSTICE: CORRECTIONS

Correctional officers must be knowledgeable in many areas if they are to function effectively in our complex society. They study specialized areas such as interviewing, counseling, drug abuse, rehabilitation techniques, testing, and community relations. In addition, they must be familiar with the law and the criminal justice system.

To this end, the correctional science program is dedicated to developing proficiency in both pre-service high school graduates and in-service correctional personnel. It offers theoretical and practical instruction to meet the needs and requirements of the various correctional agencies and provides the student with the knowledge, skills, and attitudes necessary for a successful career in the corrections field.

Employment opportunities for graduates of this curriculum are available at state and federal correctional institutions as correctional officers or as correctional program assistants. Youth development correctional officer positions are also available to graduates of this program.

In-Service Officer Programs

In addition to the regular curriculum, the criminal justice department offers the degree program on a rotating schedule, designed to coincide with the in-service officer's work schedule. The courses are being offered during the day and again at night so the working officer can attend without missing any classes.

In recognition that the in-service officer must divide his time between his personal life, his job, and his school, only one-half of the courses normally offered to full-time students are offered on the rotating schedule. Since the officer is taking a reduced load, four (rather than two) years are required to complete the requirements for the associate in applied science degree.

CRIMINAL JUSTICE: CORRECTIONS
CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	CH
BUS	102	Beginning Typewriting	2	3	3
**CJC	101	Introduction to Criminal Justice	5	0	5
CJC	112	Motor Vehicle Laws	3	0	3
CJC	115	Criminal Law I	3	0	3
HEA	110	First Aid and Medical Terminology	2	2	3
PSY	102	General Psychology	3	0	3
			18	5	20

SECOND QUARTER		COURSE TITLE	C	L	CH
CJC	109	Interviewing	3	0	3
CJC	116	Criminal Law II	3	0	3
CJC	120	Principles of Organization	3	0	3
*ENG	101	Grammar	3	0	3
*MAT	101	Algebra I	5	0	5
POL	102	National Government	3	0	3
			20	0	20
THIRD QUARTER					
CJC	102	Legal Research I	3	0	3
CJC	113	Corrections Law	3	0	3
CJC	125	Criminal Procedure	2	0	2
ENG	102	Composition	3	0	3
ENG	204	Oral Communications	3	0	3
POL	103	State and Local Government	3	0	3
			17	0	17
FOURTH QUARTER					
CHM	101	Chemistry	4	2	5
CSC	201	Marriage and the Family	3	0	3
CJC	205	Evidence	3	0	3
CSC	203	Survey of Corrections	3	0	3
PSY	228	Abnormal Psychoogy	3	0	3
SOC	102	Principles of Sociology	3	0	4
			19	2	20
FIFTH QUARTER					
PSC	213	Identification Techniques	3	2	4
CSC	207	Confinement Facilities Administration	3	0	3
CSC	213	Dynamics of Substance Abuse	3	0	3
PSC	110	Juvenile Delinquency	5	0	5
ENG	103	Report Writing	3	0	3
PSY	103	Adolescent Psychology	3	0	3
			20	2	21
SIXTH QUARTER					
CSC	226	Administration and Interpretation of Tests	3	0	3
CSC	224	Rehabilitation Techniqus	3	0	3
CSC	234	Community Based Corrections	3	0	3
PSC	202	Police-Community Relations	2	0	2
CSC	229	Career Information	3	2	4
PSC	240	Firearms and Defensive Tactics	2	2	3
			16	4	18

TOTAL CREDIT HOURS FOR DEGREE 116

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 100G, 100A, 101-A, 102-A; MAT 099, 100R, 100.

Students enrolled in this curriculum may select additional elective credits from approved courses and make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

**CJC 151, 152, 153, 154, 155, and 156 totaling 6 quarter hours of credit may be substituted for CJC 101 Introduction to Criminal Justice, a 5-credit-hour course.

For information pertaining to cooperative education credits, see page 55.

CRIMINAL JUSTICE: LAW ENFORCEMENT

Today's law enforcement officer is expected to handle matters dealing with human relations; he frequently has to act in legal matters; he must be skilled in the most recent operations techniques in order to insure equality of justice to all. The Law Enforcement curriculum offers theoretical and practical instruction to meet the requirements of various law enforcement agencies and provides the student with the skills, knowledge, and attitudes necessary for employment in the law enforcement profession. Demand for properly trained law enforcement officers in industry and in municipal, county, state, and federal agencies is increasing, and the highly trained law enforcement officer will find challenging opportunities with public and private law enforcement services.

To the original and primary police functions of perserving the peace and maintaining law and order, the ever-widening scope of government activity has added a host of other duties to the various law enforcement agencies, ranging from the regulation of traffic and the suppression of vice to the enforcement of minor laws and ordinances that regulate the minutiae of business and private life in a modern society.

In-service Officer Program

In addition to the regular curriculum, the Law Enforcement Department offers the degree program on a rotating schedule, designed to coincide with the inservice officer's work schedule. The courses are being offered during the day and again at night so the working officer can attend without missing any classes.

In recognition that the inservice officer must divide this time between his personal life, his job, and his school, only one-half of the courses normally offered to full-time students are offered on the rotating schedule. Since the officer is taking a reduced load, it requires four rather than two years to complete the requirements for the associate in applied science degree.

CRIMINAL JUSTICE: LAW ENFORCEMENT CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	CH
BUS	102	Beginning Typewriting	2	3	3
**CJC	101	Introduction to Criminal Justice	5	0	5
CJC	112	Motor Vehicle Laws	3	0	3
CJC	115	Criminal Law I	3	0	3
HEA	110	First Aid and Medical Terminology	2	2	3
PSY	102	General Psychology	3	0	3
			18	5	20

SECOND QUARTER		COURSE TITLE	C	L	CH
CJC	109	Interviewing	3	0	3
CJC	116	Criminal Law II	3	0	3
CJC	120	Principles of Organization	3	0	3
*ENG	101	Grammar	3	0	3
*MAT	101	Algebra I	5	0	5
POL	102	National Government	3	0	3
			20	0	20
THIRD QUARTER					
CJC	102	Legal Research I	3	0	3
CJC	113	Corrections Law	3	0	3
CJC	125	Criminal Procedure	2	0	2
ENG	102	Composition	3	0	3
ENG	204	Oral Communications	3	0	3
POL	103	State and Local Government	3	0	3
			17	0	17
FOURTH QUARTER					
CHM	101	Chemistry	4	2	5
CJC	205	Evidence	3	0	3
CJC	211	Criminalistics	4	2	5
CSC	203	Survey of Corrections	3	0	3
PSY	228	Abnormal Psychology	3	0	3
SOC	102	Principles of Sociology	3	0	3
			20	4	22
FIFTH QUARTER					
CJC	204	Evidence Photography	3	3	4
CSC	213	Dynamics of Substance Abuse	3	0	3
ENG	103	Report Writing	3	0	3
PSC	110	Juvenile Delinquency	5	0	5
PSC	213	Identification Techniques	3	2	4
			17	5	19
SIXTH QUARTER					
CJC	210	Criminal Investigation	4	2	5
CJC	235	Forensic Science	3	2	4
PSC	201	Patrol Procedures	4	2	5
PSC	202	Police-Community Relations	2	0	2
PSC	240	Firearms and Defensive Tactics	2	2	3
			15	8	19

TOTAL CREDIT HOURS FOR DEGREE 117

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 100G, 100A, 101-A, 102-A, MAT 099, 100R, 100.

**Students enrolled in this curriculum may select additional elective credits from approved courses and make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

**CJC 151, 152, 153, 154, 155, and 156 totaling 6 quarter hours of credit may be substituted for CJC 101 Introduction to Criminal Justice, a 5 credit-hour course.

For information pertaining to cooperative education credits, see page 55.

EARLY CHILDHOOD ASSOCIATE

This curriculum is designed to prepare students for directing or teaching in a day care center. Courses in administration, food for children, working with parents, and planning and directing learning activities for young children are emphasized.

The graduate of the Early Childhood Associate curriculum will be qualified to work in developmental child care centers, day care facilities, and public and private schools and preschools.

EARLY CHILDHOOD ASSOCIATE CURRICULUM BY QUARTERS

		COURSE TITLE	C	L	CL	CH
FIRST QUARTER						
EDU	102	Child Health and Safety	3	0	0	3
EDU	103	Preschool Orientation	1	0	6	3
*MAT	100R	Computational Skills	5	0	0	5
PSY	115	Child Growth and Development: Prenatal-Early Childhood	3	0	0	3
SPH	150	Voice and Diction	3	0	0	3
			15	0	6	17
SECOND QUARTER						
BUS	102	Beginning Typewriting	2	3	0	3
EDU	104	Preschool Observation	1	0	6	3
EDU	231	Creative Activities	5	0	0	5
*ENG	101	Grammar	3	0	0	3
PSY	116	Child Growth and Development: Middle Childhood-Adolescence	3	0	0	3
PSY	102	General Psychology	3	0	0	3
			17	3	6	20
THIRD QUARTER						
EDU	111	Language Arts Techniques I	5	0	0	5
EDU	115	Audiovisual and Media Instruction	3	0	0	3
ENG	102	Composition	3	0	0	3
SOC	101	Introduction to Sociology	5	0	0	5
		**Elective	3	0	0	3
			19	0	0	19
FOURTH QUARTER						
ENG	103	Report Writing	3	0	0	3
EDU	203	Exceptional Child	5	0	0	5
		**Elective	4	0	0	4
			12	0	0	12
FIFTH QUARTER						
EDU	204	Parent Education	3	0	0	3
EDU	225A	Seminar-Practicum: Preschool	1	0	15	6
EDU	230	Preschool Education	5	0	0	5
NUT	102	Food for Children	3	2	0	4
			12	2	15	18

SIXTH QUARTER		COURSE TITLE		C	L	CH
COE	100	Job Search and Career Planning	3	0	0	3
ENG	217	Children's Literature	3	0	0	3
EDU	225B	Seminar-Practicum: Preschool	1	0	15	6
EDU	202	Discipline Strategies in the Classroom	3	0	0	3
EDU	229	Infant Care	3	0	0	3
			13	0	15	18

SEVENTH QUARTER						
EDU	225C	Seminar-Practicum: Preschool	1	0	15	6
ECO	108	Consumer Economics	3	0	0	3
EDU	232	Preschool Administration and Supervision	3	0	0	3
SOC	221	Family	3	0	0	3
		**Elective	2	0	0	2
			12	0	15	17

TOTAL CREDIT HOURS FOR DEGREE 121

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 094, 100G, 100A, 101-A, 102-A; MAT 099.

**Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

BUS 110, 112, 134; CAT 110; ECO 150; EDU 240, 241A, 241B; ENG 105, 106; PHY 120; POL 102; PSY 206; SOC 103; SSC 101; and/or any college transfer course as approved by the department chairperson. Students may elect to participate in Cooperative Education Field Experience: COE 101A-107D.

For information pertaining to cooperative education credits, see page 55.

ELECTRONIC DATA PROCESSING: BUSINESS

This curriculum provides the student with functional competence in the solution of business data processing problems using the computer. An understanding of business operations, techniques of handling data, and development of management information systems is combined with experience in computer programming through extensive laboratory work. The related skills, such as business mathematics, accounting, English, and communications are part of the curriculum to give the student the basic abilities of all well-qualified technicians.

ELECTRONIC DATA PROCESSING: BUSINESS CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	CH
EDP	114	Introduction to Computer Concepts	3	0	3
EDP	115	FORTRAN	2	4	4
*MAT	110	Business Mathematics	5	0	5
*ENG	101	Grammar	3	0	3
		**Business Electve	3	0	3
			16	4	18
SECOND QUARTER					
ACT	150	Principles of Accounting	3	2	4
EDP	214	Computer Systems I	2	2	3
EDP	223	Introduction to RPG II	2	4	4
ENG	102	Composition	3	0	3
		**Business Elective	3	0	3
			13	8	17
THIRD QUARTER					
ACT	151	Principles of Accounting	3	2	4
EDP	113	Intermediate Programming for Microcomputers	2	2	3
EDP	118	COBOL I	2	4	4
EDP	224	RPG II	2	4	4
ENG	204	Oral Communications	3	0	3
		**Social Science Elective	3	0	3
			15	12	21
FOURTH QUARTER					
ACT	152	Principles of Accounting	3	2	4
BUS	166	Business Law I	3	0	3
EDP	119	COBOL II	2	4	4
MAT	111	Computer Mathematics	5	0	5
			13	6	16

FIFTH QUARTER		COURSE TITLE	C	L	CH
BUS	225	Cost Accounting	3	2	4
BUS	235	Business Management	3	0	3
EDP	211	Applications I	2	4	4
ENG	103	Report Writing	3	0	3
or					
ENG	206	Business Communications			
		**Social Science Elective	3	0	3
			14	6	17

SIXTH QUARTER					
EDP	212	Applications II	2	4	4
EDP	230	Internship I	0	10	5
EDP	231	Internship II	0	10	5
EDP	233	Customer Information Control System	2	4	4
			4	28	18

TOTAL CREDIT HOURS FOR DEGREE 107

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

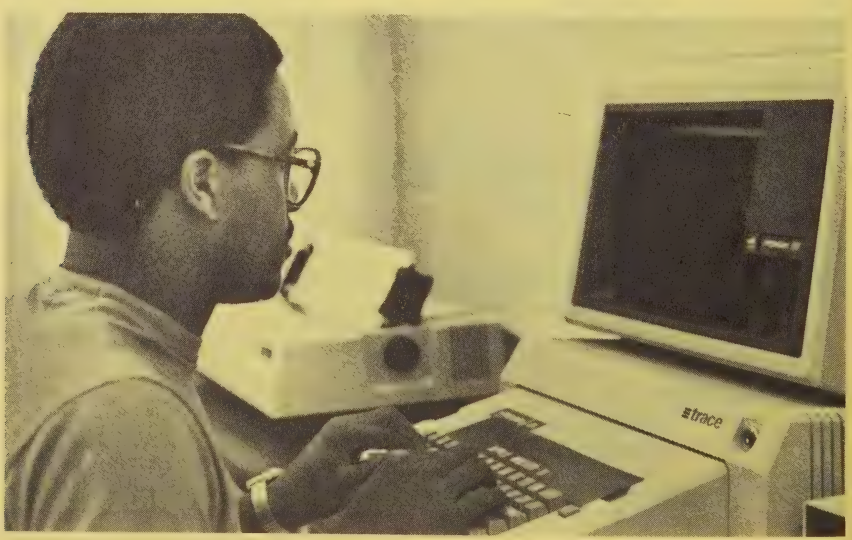
ENG 091, 092, 093, 094, 100G, 100A, 101-A, 102-A; MAT 099, 100R.

**Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

BUS 123, 165, 167, 222, 223, 224, 226, 227, 229, 231, 239, 271, 272; COE 100, 101A-107D; ECO 108, 150, 151; EDP 116, 117, 130; PSY 101, 102, 104, 150, 151, 206; SOC 102, 103, 150

For information pertaining to cooperative education credits, see page 55.



ELECTRONICS ENGINEERING TECHNOLOGY

This curriculum provides a basic background in electronic theory with practical applications for business and industry. Courses are designed to develop competent electronics technicians who may take their places as assistants to engineers or as liaison between engineers and the skilled craftsmen.

The electronics technician may start in research, design, development, production, maintenance, or sales. Possible starting positions include assistant to an engineer, engineering aide, laboratory technician, supervisor, and equipment specialist. Maintaining liaison between the engineer and the skilled craftsman may also be the responsibility of the electronics technician. Training provided in this curriculum program is similar to training received by engineers, but has less depth and is more practical in application.

ELECTRONICS ENGINEERING TECHNOLOGY CURRICULUM BY QUARTERS

			C	L	CH
FIRST QUARTER		**COURSE TITLE**			
DFT	101	Technical Drafting	1	3	2
*ENG	101	Grammar	3	0	3
ELN	100	Introduction to Electronics	3	2	4
*MAT	101	Algebra I	5	0	5
MEC	112	Machine Shop Processes	1	3	2
			13	8	16
SECOND QUARTER					
DFT	102	Technical Drafting	1	3	2
ELC	101	Fundamentals of Electricity I	4	4	6
ENG	102	Composition	3	0	3
MAT	102	Trigonometry	5	0	5
PHY	101	Technical Physics	4	2	5
			17	9	21
THIRD QUARTER					
ELC	102	Fundamentals of Electricity II	5	4	7
ENG	204	Oral Communications	3	0	3
MAT	103	Algebra II	5	0	5
PHY	102	Technical Physics	4	2	5
			17	6	20
FOURTH QUARTER					
ELN	101	Electronic Instruments and Measurements	1	4	3
ELN	105	Control Devices	4	4	6
MAT	104	Calculus I	3	0	3
PHY	104	Technical Physics	3	2	4
		**Social Science Elective	3	0	3
			14	10	19

FIFTH QUARTER		COURSE TITLE	C	L	CH
ENG	103	Report Writing	3	0	3
ELC	210	Rotating Devices	2	2	3
ELN	205	Application of Vacuum Tubes and Transistors	5	6	8
MAT	201	Calculus II	3	0	3
			13	8	17

SIXTH QUARTER					
ELN	210	Semiconductor Circuit Analysis	5	4	7
ELN	211P	Communication Circuits	4	4	6
ELN	214	Fundamentals of Digital Electronics I	3	3	4
		**Social Science Elective	3	0	3
			15	11	20

SEVENTH QUARTER					
ELN	215	Fundamentals of Digital Electronics II	3	3	4
ELN	220	Electronic Systems	5	4	7
ELN	231	Introduction to Microcomputers	3	3	4
			11	10	15

TOTAL CREDIT HOURS FOR DEGREE 128

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 100G, 100A, 101-A, 102-A; MAT 099, 100R, 100

**Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

ELN 230, 235, 245; ENG 105; PSY 102, 206; SOC 102, 103; SSC 101; COE 100

For information pertaining to cooperative education credits, see page 55.

GENERAL OFFICE TECHNOLOGY

The General Office Technology curriculum is designed to prepare students for a variety of office-related jobs that do not require shorthand. Machine transcription is stressed, and the usual skills courses such as typewriting, office machines, and word processing are supplemented with general education courses as well as other related business courses.

The graduate of the General Office Technology curriculum will be trained for jobs such as transcribing-machine operator, file clerk, clerk-typist, accounting clerk, bookkeeper, word processor, general office worker, receptionist, sales clerk, and a variety of related jobs.

GENERAL OFFICE TECHNOLOGY CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	CH
BUS	100	Business Education Orientation	1	0	1
BUS	102	Beginning Typewriting	2	3	3
COE	100	Job Search and Career Planning	3	0	3
*ENG	101S	Secretarial Grammar	5	0	5
ENG	106	Spelling Techniques	3	0	3
			14	3	15
SECOND QUARTER					
BUS	103	Intermediate Typewriting	2	3	3
BUS	231	Sales and Inventory Procedures	3	0	3
ENG	102	Composition	3	0	3
EDP	114	Introduction to Computer Concepts	3	0	3
*MAT	110	Business Mathematics	5	0	5
			16	3	17
THIRD QUARTER					
BUS	104	Advanced Typewriting	2	3	3
BUS	112	Filing	3	0	3
BUS	117	Electronic Calculator: Secretary	3	2	4
BUS	134	Personal Grooming	3	0	3
EDP	112	Introduction to Microcomputers and Programming	2	2	3
			13	7	16
FOURTH QUARTER					
ACT	150	Principles of Accounting	3	2	4
BUS	113	Machine Transcription I	5	0	5
BUS	166	Business Law I	3	0	3
ENG	206	Business Communications	3	0	3
BUS	192	Word Processing Applications I	2	3	3
			16	5	18

FIFTH QUARTER		COURSE TITLE	C	L	CH
BUS	114	Machine Transcription II	5	0	5
BUS	216	Office Procedures	5	0	5
ECO	108	Consumer Economics	3	0	3
		**Business or Social Science Elective	3	0	3
BUS	193	Word Processing Applications II	2	3	3
			18	3	19
SIXTH QUARTER					
BUS	205	Production Typewriting	2	3	3
BUS	213	Machine Transcription III	5	0	5
BUS	215	Office Application			
or					
COE	101A	Cooperative Education Field Experience	0	10	1
BUS	259	Office Simulation	2	3	3
ENG	204	Oral Communications	3	0	3
			12	16	15

TOTAL CREDIT HOURS FOR DEGREE 100

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 094, 100G, 100A, 101, 101-A, 102-A; MAT 099, 100R.

**Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

BUS 106, 107, 108, (and accompanying labs), 167, 183L, 184M, 191, 194, 235; ECO 150, 151; EDP 113; ENG 105; PSY 101, 102, 206; POL 102, 103; SOC 102, 103, 221; SSC 101

For information pertaining to cooperative education credits, see page 55.

HUMAN SERVICES TECHNOLOGY

The greatest challenge in the field of human services is to help people rediscover a meaningful and productive life. Human service workers are people who like to work with people. The student learns how to deliver services to the client or help others meet their human needs. Problem-solving skills, both performance and conceptual, are learned in the classroom work and in practical experience throughout the field placement agencies. The student will grow academically, personally, and professionally.

The human services program is a two-year course of study leading to an associate of applied science degree. Graduates are qualified to take the N.C. Department of Human Resources Examination to qualify for many state positions in human service agencies and institutions. Jobs are possible in mental retardation centers, mental hospitals, mental health centers, developmental day care centers, school systems, and many other agencies.

HUMAN SERVICES TECHNOLOGY CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	CH
*+ENG	101	Grammar	3	0	3
HAS	100	Basic Health Science	3	0	3
HSA	111	Introduction to Human Services	3	3	4
HSA	112	Group Processes I	1	3	2
PSY	150	General Psychology I	4	0	4
			14	6	16
SECOND QUARTER					
+ENG	102	Composition	3	0	3
HSA	112P	Practicum I	1	6	3
HSA	113	Group Processes II	1	3	2
HSA	220	Activities in Human Servics	2	2	3
PSY	120	Human Growth and Development	3	0	3
SOC	150	Sociology I	5	0	5
	or				
SOC	102	Principles of Sociology	3	0	3
			13-15	11	17-19
THIRD QUARTER					
ENG	103	Report Writing	3	0	3
HSA	113P	Practicum II	1	6	3
HSA	114	Interviewing and Counseling	3	2	4
PSY	211	Behavior Disorders	5	0	5
PSY	222	Exceptionality	5	0	5
			17	8	20
FOURTH QUARTER					
HSA	115	Field Internship	1	39	14

FIFTH QUARTER		COURSE TITLE	C	L	CH
+ENG	204	Oral Communications	3	0	3
MHA	211P	Practicum IV	1	6	3
PSY	151	General Psychology II	3	0	3
PSY	230	Psychology and Physiology of Aging	3	0	3
SOC	160	Courtship and Marriage	5	0	5
		**+Elective	—	—	1-3
			15	6	18-20

SIXTH QUARTER					
MHA	201	Mental Health Care	4	3	5
MHA	215P	Practicum V	1	6	3
PSY	221	Learning and Behavior	3	4	5
PSY	225	Tests and Measurements	3	0	3
		**+Elective	—	—	1-3
			11	13	17-19

SEVENTH QUARTER					
MHA	209	Treatment Modalities	2	4	4
MHA	116	Group Processes III	1	3	2
MHA	215	Mental Health Seminar	3	0	3
MHA	225	Crisis Intervention	2	2	3
		**+Elective	—	—	1-3
			8	9	13-15

TOTAL CREDIT HOURS FOR DEGREE 115-123

*If students, as a result of placement tests, are found to be deficient in English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 100G, 100A, 101-A, 102-A.

+College Transfer courses may be substituted.

**Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

BUS 102; EDU 203, 204, 231; ENG 105; HSA 102, 202; MHA 131, 132, 133, 208, 210, 210P, 231, 232, 233, college transfer courses; COE 100. Students may elect to participate in cooperative education field experience: COE 101A-107D.

For information pertaining to cooperative education credits, see page 55.

INDUSTRIAL MAINTENANCE TECHNOLOGY

The Industrial Maintenance Technology curriculum is designed to educate students in technical areas in which there is a need for trained and skilled people. This program is designed to prepare graduates for employment as industrial maintenance technicians. Training in theory and practical skills will provide the knowledge needed to inspect, diagnose, repair, and install industrial, electrical, and mechanical equipment. Special emphasis will be in using hand tools and metal working machines and in checking the work with measuring and testing instruments. The Industrial Maintenance Technology curriculum is flexible in that courses in major fields may be supplemented by a wide selection of courses in related curricula such as welding, machine shop, hydraulics and pneumatics, metallurgy, and electricity.

INDUSTRIAL MAINTENANCE TECHNOLOGY CURRICULUM BY QUARTERS

			C	L	CH
FIRST QUARTER		**COURSE TITLE**			
ELC	112	Alternating and Direct Current	2	6	4
MAT	100	Review of Fundamental Mathematics	5	0	5
			7	6	9
SECOND QUARTER					
ELC	113	Alternating Current and Direct Current Machines and Controls	2	6	4
PHY	120	Introduction to the Metric System	3	0	3
WLD	120	Oxyacetylene Welding	2	3	3
			7	9	10
THIRD QUARTER					
ELC	119	Industrial Electrical Controls and Systems	2	6	4
*ENG	101	Grammar	3	0	3
ISC	102	Industrial Safety	3	0	3
			8	6	10
FOURTH QUARTER					
ELC	121	Electrical Trouble Shooting	2	3	3
WLD	121	Arc Welding	2	6	4
			4	9	7
FIFTH QUARTER					
DFT	104	Blueprint Reading—Mechanical	3	0	3
ENG	204	Oral Communications	3	0	3
MEC	101	Machine Processes	3	3	4
			9	3	10

SIXTH QUARTER		COURSE TITLE	C	L	CH
DFT	105	Blueprint Reading and Sketching	3	0	3
ISC	201	Industrial Organization and Management	3	0	3
MEC	102	Machine Processes	3	3	4
			9	3	10
SEVENTH QUARTER					
AHR	101	Air Conditioning and Refrigeration	3	3	4
MEC	210	Physical Metallurgy	3	3	4
			6	6	8
EIGHTH QUARTER					
MEC	114	Shop Practice	1	6	3
MEC	222	Rigging and Material Handling	2	3	3
			3	9	6
NINTH QUARTER					
BUS	272	Principles of Supervision	3	0	3
WLD	122	Commercial and Industrial Practice	2	3	3
		**Elective	3	0	3
			8	3	9
TENTH QUARTER					
ISC	205	Maintenance Management	3	0	3
MEC	235	Hydraulics and Pneumatics	3	3	4
PSY	206	Applied Psychology	3	0	3
			9	3	10
ELEVENTH QUARTER					
ISC	202	Quality Control	3	0	3
MEC	298	Maintenance Problems I	2	3	3
		**Social Science Elective	3	0	3
			8	3	9
TWELFTH QUARTER					
AHR	201	Principles of Heating	3	3	4
MEC	299	Maintenance Problems II	2	3	3
		**Social Science Elective	3	0	3
			8	6	10

TOTAL CREDIT HOURS FOR DEGREE 108

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 092, 093, 094, 100G, 100A, 101-A, 102-A; MAT 099, 100R.

**Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:
DFT 101; EDP 114; ENG 105; ISC 110, 120, 130, 209, 231; MAT 101; MEC 270, 271, 272; PSC 102; PSY 101, 102, 104, 120, 228; SOC 101, 102, 103; SSC 101; COE 100

For information pertaining to cooperative education credits, see page 55.

INDUSTRIAL MANAGEMENT TECHNOLOGY

Industry's needs in positions of supervision and mid-management have grown extensively with the development of new methods of manufacturing and with the increase in the national economy. This need has added emphasis to the necessity for well-trained individuals who can understand new methods and keep abreast of trends in the economy. The supervisor and persons in mid-management must be concerned daily with human behavior and the psychological factors which affect personnel working under their direction. They must also be conscious of the responsibilities of their position toward the total economic well being of the industry.

The program is prepared to develop the individual's abilities in the art of communicating with fellow workers by providing training in business and industrial management, psychology, production methods, and general education and social education that broaden perspective. This training should provide one with the opportunity to enter into an industrial occupation and, with experience, assume the responsibilities of supervisory and mid-management positions in industry.

The curriculum is designed for presently-employed persons who wish to attend courses and work toward a degree in the evening. On-the-job training is a desirable and recommended part of the program.

The supervisor coordinates the activities of workers in one or more occupations. Duties may encompass interpreting company policies to workers, planning production schedules, estimating time required for job completion, adjusting work problems, and motivating workers to achieve work goals.

INDUSTRIAL MANAGEMENT TECHNOLOGY CURRICULUM BY QUARTERS

				C	L	CH
FIRST QUARTER		**COURSE TITLE**				
EDP	114	Introduction to Computer Concepts		3	0	3
*ENG	101	Grammar		3	0	3
ISC	110	Readings in Industrial Management		1	0	1
*MAT	101	Algebra I		5	0	5
				12	0	12
SECOND QUARTER						
ENG	102	Composition		3	0	3
ISC	120	Readings in Industrial Management		1	0	1
ISC	231	Manufacturing Processes		5	0	5
PHY	120	Introduction to the Metric System		3	0	3
				12	0	12

THIRD QUARTER		COURSE TITLE	C	L	CH
ACT	150	Principles of Accounting	3	2	4
ENG	103	Report Writing	3	0	3
ISC	102	Industrial Safety	3	0	3
ISC	203	Motion Economy	3	0	3
			12	2	13
FOURTH QUARTER					
EDP	112	Introduction to Microcomputers and Programming	2	2	3
ENG	204	Oral Communications	3	0	3
ISC	202	Quality Control	3	0	3
ISC	204	Value Analysis	3	0	3
			11	2	12
FIFTH QUARTER					
BUS	123	Business Finance	3	0	3
BUS	166	Business Law I	3	0	3
ECO	150	Economics I	3	0	3
SOC	103	Social Problems	3	0	3
			12	0	12
SIXTH QIARTER					
BUS	229	Taxes	3	2	4
ECO	151	Economics II	3	0	3
ISC	130	Readings in Industrial Management	1	0	1
ISC	213	Production Planning	4	0	4
			11	2	12
SEVENTH QUARTER					
BUS	235	Business Management	3	0	3
BUS	239	Marketing	5	0	5
ISC	209	Plant Layout	4	0	4
			12	0	12
EIGHTH QUARTER					
BUS	272	Principles of Supervision	3	0	3
DFT	101	Technical Drafting	1	3	2
ISC	232	Labor Relations	4	0	4
PSY	206	Applied Psychology	3	0	3
			11	3	12

TOTAL CREDIT HOURS FOR DEGREE 97

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 100G, 100A, 101-A, 102-A; MAT 099, 100R, 100.

**Students enrolled in this curriculum may select additional elective credits from approved courses and make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

For information pertaining to cooperative education credits, see page 55.

MEDICAL SECRETARY: MACHINE TRANSCRIPTION OPTION

The curriculum purposes are to prepare the individual to enter the medical secretarial profession through work in a doctor's office in city, county, state or government offices; provide an educational program for individuals wanting education for upgrading (moving from one medical position to another) or retraining (moving from present position to medical secretarial 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 medical typewriting, machine transcription, and machines operation. Through these skills, the individual will be able to perform medical, office-related activities and through the development of personal competencies and qualities will be provided the opportunity to enter the medical secretarial profession.

MEDICAL SECRETARY: MACHINE TRANSCRIPTION OPTION CURRICULUM BY QUARTERS

			C	L	CH
FIRST QUARTER		**COURSE TITLE**			
BIO	100	Introduction to Human Biology	4	2	5
BUS	102	Beginning Typewriting	2	3	3
*ENG	101S	Secretarial Grammar	5	0	5
*MAT	110	Business Mathematics	5	0	5
			16	5	18
SECOND QUARTER					
ACT	150	Principles of Accounting	3	2	4
BUS	103	Intermediate Typewriting	2	3	3
BUS	117	Electronic Calculator: Secretary	3	2	4
BUS	184M	Terminology and Vocabulary: Medical I	3	0	3
ENG	106	Spelling Techniques	3	0	3
			14	7	17
THIRD QUARTER					
BUS	104	Advanced Typewriting	2	3	3
BUS	113	Machine Transcription I	5	0	5
BUS	185M	Terminology and Vocabulary: Medical II	3	0	3
BUS	112	Filing	3	0	3
ENG	102	Composition	3	0	3
			16	3	17
FOURTH QUARTER					
BUS	134	Personal Grooming	3	0	3
BUS	188	Medical Transcription I	4	2	5
BUS	186M	Terminology and Vocabulary: Medical III	3	0	3
EDP	112	Introduction to Microcomputers and Programming	2	2	3
ENG	206	Business Communications	3	0	3
			15	4	17

FIFTH QUARTER		COURSE TITLE	C	L	CH
BUS	216	Office Procedures	5	0	5
BUS	183M	Medical Typing Practice	3	0	3
BUS	189	Medical Transcription II	4	2	5
BUS	192	Word Processing Applications I	2	3	3
BUS	248	Medical Insurance	3	0	3
			17	5	19

SIXTH QUARTER					
BUS	115M	Medical Ethics and Law	3	0	3
BUS	193	Word Processing Applications II	2	3	3
BUS	214A	Clinical Experience	0	18	6
	or				
COE	101B	Cooperative Education Field Experience	0	20	2
BUS	214B	Medical Transcriber Seminar	2	0	2
			7	21-23	10-14

TOTAL CREDIT HOURS FOR DEGREE ..... 98 or 102

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 094, 100A, 101, 101-A, 102-A; MAT 099, 100R.

**Students enrolled in this curriculum may make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

For information pertaining to cooperative education credits, see page 55.

MEDICAL SECRETARY: SHORTHAND OPTION

The purposes of this curriculum are to prepare the individual to enter the medical secretarial profession through work in a doctor's office in city, county, state or government offices; provide an educational program for individuals wanting education for upgrading (moving from one medical position to another) or retraining (moving from present position to medical secretarial 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 medical typewriting, shorthand and machine transcription, and machines operation. Through these skills, the individual will be able to perform medical, office-related activities and through the development of personal competencies and qualities will be provided the opportunity to enter the medical secretarial profession.

MEDICAL SECRETARY: SHORTHAND OPTION
CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	CH
BIO	100	Introduction to Human Biology	4	2	5
BUS	102	Beginning Typewriting	2	3	3
*ENG	101S	Secretarial Grammar	5	0	5
*MAT	110	Business Mathematics	5	0	5
			16	5	18

SECOND QUARTER					
BUS	248	Medical Insurance	3	0	3
BUS	103	Intermediate Typewriting	2	3	3
BUS	106	Beginning Shorthand	5	0	5
BUS	106L	Beginning Shorthand Lab	0	5	0
BUS	113	Machine Transcription I	5	0	5
BUS	1184M	Terminology and Vocabulary: Medical I	3	0	3
			18	8	19

THIRD QUARTER					
BUS	104	Advanced Typewriting	2	3	3
BUS	107	Intermediate Shorthand	5	0	5
BUS	107L	Intermediate Shorthand Lab	0	5	0
BUS	117	Electronic Calculator: Secretary	3	2	4
BUS	185M	Terminology and Vocabulary: Medical II	3	0	3
ENG	102	Composition	3	0	3
			16	10	18

FOURTH QUARTER		COURSE TITLE	C	L	CH
BUS	108	Dictation and Transcription	5	0	5
BUS	108L	Dictation and Transcription Lab	0	5	0
BUS	188	Medical Transcription I	4	2	5
BUS	186M	Terminology and Vocabulary: Medical III	3	0	3
EDP	112	Introduction to Microcomputers and Programming	2	2	3
ENG	206	Business Communications	3	0	3
			17	9	19

FIFTH QUARTER					
ACT	150	Principles of Accounting	3	2	4
BUS	216	Office Procedures	5	0	5
BUS	189	Medical Transcription II	4	2	5
BUS	192	Word Processing Applications I	2	3	3
			14	7	17

SIXTH QUARTER					
BUS	112	Filing	3	0	3
BUS	115M	Medical Ethics and Law	3	0	3
BUS	193	Word Processing Applications II	2	3	3
BUS	214A	Clinical Experience	0	18	6
or					
COE	101B	Cooperative Education Field Experience	0	20	2
BUS	214B	Medical Transcriber Seminary	2	0	2
			10	21-23	13-17

TOTAL CREDIT HOURS FOR DEGREES . . . . . 104 or 108

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 094, 100A, 101, 101-A, 102-A; MAT 099, 100R.

Students enrolled in this curriculum may make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

For information pertaining to cooperative education credits, see page 55.

NURSING EDUCATION OPTIONS

The Nursing Education Options curriculum is designed to prepare the graduate to practice as a Licensed Practical Nurse (LPN) or a Registered Nurse (RN). Students completing the first four quarters of the program are eligible to take the licensing exam (NCLEX-PN) required for practice as a licensed practical nurse. Students completing the seventh quarter earn as AAS. They have developed the knowledge and skills which will enable them to take the licensing exam (NCLEX-RN) required to practice as a registered nurse. Licensed practical nurses who meet specific criteria may also enter this program with advanced credits toward the Associate in Applied Science degree.

NURSING EDUCATION OPTIONS
CURRICULUM BY QUARTERS

FIRST QUARTER		**COURSE TITLE**	**C**	**L**	**CL**	**CH**
NUR	101	Fundamentals of Nursing	6	4	3	9
BIO	150	Human Anatomy and Physiology I	3	2	0	4
+ENG	101	Grammar	3	0	0	3
NUR	110	Pharmacology	2	0	0	2
MAT	114	Basic Math for Health Professions	2	0	0	2
			16	6	3	20
SECOND QUARTER						
NUR	102	Medical-Surgical Nursing I	8	2	12	13
BIO	151	Human Anatomy and Physiology II	3	2	0	4
PSY	150	General Psychology I	4	0	0	4
			15	4	12	21
THIRD QUARTER						
NUR	103	Medical-Surgical Nursing II	8	2	12	13
or						
NUR	104	Maternal Child Nursing I	8	0	12	12
PSY	120	Human Growth and Development	3	0	0	3
BIO	152	Human Anatomy and Physiology III	3	2	0	4
			14	2-4	12	19-20
FOURTH QUARTER						
NUR	103	Medical-Surgical Nursing II	8	2	12	13
or						
NUR	104	Maternal Child Nursing I	8	0	12	12
NUR	131	Nursing Seminar	2	0	0	2
			10	0-2	12	14-15

See Allied Health Curricula Admission

FIFTH QUARTER		COURSE TITLE	C	L	CL	CH
NUR	201	Maternal Child Nursing II	6	0	15	11
or						
NUR	203	Medical-Surgical Nursing III	6	0	15	11
BIO	206	Microbiology	3	2	0	4
+ENG	102	Composition	3	0	0	3
			12	2	15	18

SIXTH QUARTER						
NUR	201	Maternal Child Nursing II	6	0	15	11
or						
NUR	203	Medical-Surgical Nursing III	6	0	15	11
PSY	180	Abnormal Psychology	3	0	0	3
SOC	150	Sociology I	5	0	0	5
			14	0	15	19

SEVENTH QUARTER						
NUR	202	Psychiatric Nursing	4	0	9	7
NUR	204	Patient Care Management	4	0	6	6
			8	0	15	13

TOTAL CREDIT HOURS FOR DEGREE 125

NUR	200*	Transition Nursing	4	0	9	7

+May substitute college transfer English.

*Licensed practical nurses applying for advanced standing must take NUR 200 the summer prior to entering the second year of the program.

Cooperative Education not allowed

PARALEGAL TECHNOLOGY

The increased need for legal services in all aspects of law has placed a heavy demand on the attorneys' time. In response to this situation, a special committee of the American Bar Association has recommended the use of paralegals to relieve the lawyers of many routine legal matters.

Paralegals are highly trained men and women who occupy an important position in the legal profession. Neither legal secretaries nor practicing attorneys, they are trained specialists who have studied legal procedure and can apply their knowledge as important members of the legal service team. Paralegal graduates will be able to assist the attorney in many facts of law, including work on probate matters, documents, bookkeeping, library research, conducting investigations, and providing office management. In no case will the paralegal give legal advice, enter into courtroom procedure, or be involved in litigation.

Pitt Community College has been approved to offer the Paralegal Technology curriculum by the North Carolina State Bar, the third Judicial District Bar, and the Pitt County Bar. Its curriculum developed in conjunction with an advisory board of prominent practicing attorney offers a balanced course of study in law, accounting, management, and investigation. These courses will provide both the theoretical knowledge and practical skills necessary for a career as a paralegal.

Evening Program

In addition to the regular day curriculum program, the paralegal degree program is offered during the evening in order that working secretaries and other interested persons might obtain a degree or upgrade their skills in the paralegal area.

In recognition that persons attending the evening program usually have to divide their time between their job, family, social responsibilities, and school, evening students will take approximately one-half of a full-time day student's load. With this reduction in load, evening student should expect to take between three and four years to complete the degree requirements.

PARALEGAL TECHNOLOGY
CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	CH
BUS	102	Beginning Typewriting	2	3	3
**CJC	101	Introduction to Criminal Justice	5	0	5
CJC	112	Motor Vehicle Laws	3	0	3
CJC	115	Criminal Law I	3	0	3
HEA	110	First Aid and Medical Terminology	2	2	3
PSY	102	General Psychology	3	0	3
			18	5	20

SECOND QUARTER					
CJC	109	Interviewing	3	0	3
CJC	116	Criminal Law II	3	0	3
CJC	120	Principles of Organization	3	0	3
*ENG	101	Grammar	3	0	3
*MAT	101	Algebra I	5	0	5
POL	102	National Government	3	0	3
			20	0	20

THIRD QUARTER					
CJC	102	Legal Research I	3	0	3
CJC	113	Corrections Law	3	0	3
CJC	125	Criminal Procedure	2	0	2
ENG	102	Composition	3	0	3
ENG	204	Oral Communications	3	0	3
POL	103	State and Local Government	3	0	3
			17	0	17

FOURTH QUARTER					
CHM	101	Chemistry	4	2	5
ENG	206	Business Communications	3	0	3
LEC	203	Legal Research II	3	0	3
LEC	207	Law Office Management	3	0	3
LEC	224	Torts	3	0	3
			16	2	17

FIFTH QUARTER					
ACT	150	Principles of Accounting	3	2	4
CJC	205	Evidence	3	0	3
CJC	211	Criminalistics	4	2	5
LEC	220	Family Law	3	0	3
LEC	210	Real Property and Title Abstracting I	2	2	3
			15	6	18

SIXTH QUARTER					
BUS	166	Business Law I	3	0	3
CJC	204	Evidence Photography	3	3	4
ENG	103	Report Writing	3	0	3
LEC	211	Real Property and Title Abstracting II	2	2	3
LEC	232	Estate Administration	3	0	3
LEC	240	Litigation Preparation	3	0	3
			17	5	19

SEVENTH QUARTER		COURSE TITLE	C	L	CH
BUS	167	Business Law II	3	0	3
CJC	210	Criminal Investigation	4	2	5
CJC	235	Forensic Science	3	2	4
LEC	212	Real Estate Transactions	2	2	3
LEC	229	Taxes	3	0	3
			15	6	18

TOTAL CREDIT HOURS FOR DEGREE 129

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 100G, 100A, 101-A, 102-A; MAT 099, 100R, 100.

Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVE:

LEC 218, 250

**CJC 151, 152, 153, 154, 155, 156 may be substituted for CJC 101 Introduction to Criminal Justice, which is a 5 credit-hour course.

For information pertaining to cooperative education credits, see page 55.

RADIOLOGIC TECHNOLOGY

This curriculum is designed to meet the ever-increasing need for technologists in the rapidly growing branch of medicine known as radiology. The aim of the Radiologic Technology curriculum is to prepare qualified persons for positions in the area of radiologic technology and to prepare them for furthering their education, if they wish, in nuclear medicine, radiation therapy, other imaging modalities, or a baccalaureate program.

Students are selected on the basis of demonstrated aptitude for radiology, as determined by entrance tests, interviews with faculty members, high school records, character references, and physical examinations. Graduates of accredited programs are eligible for examination by the American Registry of Radiologic Technologists. After passing the examination, they are certified as registered technologists in x-ray technology and entitled to use the legal title Registered Technologist (R.T.) They are then eligible for membership in the American Society of Radiologic Technologists, an organization dedicated to maintaining high educational standards of training and professional stature.

Radiologic technologists work in hospitals, clinics, doctor's offices, public health institutions, and industrial medical clinics. They assist radiologists in the use of x-rays to examine for broken bones, ulcers, tumors, and disease or malfunctions of various organs.

The radiologic technologists take x-ray films called radiographs. They adjust radiographic equipment to the correct setting for a specific examination and position the patient and make, develop, and file the required number of radiographs.

X-ray technologists also aid the physician in administering chemical mixtures to the patient to make certain organs show up clearly in x-ray examinations. Technologists may need to use mobile x-ray equipment at a patient's bedside and in surgery.

RADIOLOGIC TECHNOLOGY CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	CL	CH
ENG	101	Grammar	3	0	0	3
MAT	101	Algebra I	5	0	0	5
SOC	102H	Principles of Sociology (Health Professions)	3	0	0	3
BIO	107	Anatomy and Physiology I	4	2	0	5
RDT	101	Radiologic Technology I	4	2	0	5
PHY	107	Radiologic Physics	3	2	0	4
RDT	111	Radiographic Positioning	4	2	0	5
			26	8	0	30

SECOND QUARTER		COURSE TITLE	C	L	CL	CH
ENG	102	Composition	3	0	0	3
PSY	104	Human Relations	3	0	0	3
BIO	108	Anatomy and Physiology II	4	2	0	5
RDT	102	Radiologic Technology II	4	2	0	5
RDT	112	Clinical Education	2	0	12	6
EDP	112	Introduction to Microcomputers and Programming	2	2	0	3
			18	6	12	25
THIRD QUARTER						
ENG	103	Report Writing	3	0	0	3
RDT	103	Radiologic Technology III	4	2	0	5
BUS	272	Principles of Supervision	3	0	0	3
RDT	201	Topographic Anatomy	2	0	0	2
RDT	113	Clinical Education	0	0	24	8
			12	2	24	21
FOURTH QUARTER						
RDT	204	Radiologic Technology IV	4	2	0	5
RDT	114	Clinical Education	0	0	27	9
			4	2	27	14
FIFTH QUARTER						
RDT	215	Clinical Education	1	0	33	12
SIXTH QUARTER						
BUS	116	Business Law	3	0	0	3
RDT	210	Pathology	3	0	0	3
RDT	205	Radiologic Technology V	4	2	0	5
RDT	216	Clinical Education	0	0	24	8
PSY	102H	General Psychology	3	0	0	3
			13	2	24	22
SEVENTH QUARTER						
BIO	210	Radiation Biology	4	0	0	4
RDT	217	Clinical Education	0	0	30	10
			4	0	30	14
EIGHTH QUARTER						
RDT	208	Radiologic Technology VII	6	0	0	6
RDT	218	Clinical Education	0	0	27	9
			6	0	27	15

TOTAL CREDIT HOURS FOR DEGREE 153

Cooperative Education not allowed

RESPIRATORY THERAPY

This curriculum is designed to meet the rapid growth in the need for respiratory therapists. The respiratory therapist graduate will have skills and abilities to assist or support the patient's respiration. The graduate will also have the knowledge required to consult with physicians regarding treatment needs and to assist the physician with the assessment of the patient's respiratory status. The respiratory therapy program accomplishes its curriculum objectives through classroom, laboratory, and clinical instruction.

Upon successful completion of the two-year program, students will be awarded the Associate in Applied Science degree. This program satisfies the entry requirements for the national credential examinations offered by the National Board for Respiratory Care. To obtain the Registered Respiratory Therapist credential, the applicant must successfully complete an entry level examination and then a clinical simulation examination. The national credential indicates excellence within this profession, but is not essential for seeking employment.

RESPIRATORY THERAPY
CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	CL	CH
BIO	107	Anatomy and Physiology I	4	2	0	5
PHY	108	Physics for Respiratory Therapists	3	2	0	4
MAT	101	Algebra I	5	0	0	5
RTH	101	Respiratory Therapy I	3	2	0	4
			15	6	0	18
SECOND QUARTER						
BIO	108	Anatomy and Physiology II	4	2	0	5
ENG	101	Grammar	3	0	0	3
CHM	110	Chemistry for Allied Health	3	2	0	4
RTH	102	Respiratory Therapy II	3	2	0	4
RTH	103	Clinical Practice I	0	0	9	3
			13	6	9	19
THIRD QUARTER						
PSY	104	Human Relations	3	0	0	3
ENG	102	Composition	3	0	0	3
RTH	104	Cardiopulmonary Anatomy and Physiology	3	0	0	3
RTH	105	Pharmacology	3	0	0	3
RHT	106	Clinical Practice II	0	4	12	6
			12	4	12	18

FOURTH QUARTER		COURSE TITLE	C	L	CL	CH
PSY	150	General Psychology I	4	0	0	4
RTH	107	Acid Base Chemistry	3	0	0	3
RTH	108	Continuous Mechanical Ventilation I	3	2	0	5
RTH	109	Clinical Practice III	0	0	15	5
RTH	110	Pathology	4	0	0	4
			14	2	15	20
FIFTH QUARTER						
BIO	206	Microbiology	3	2	0	4
ENG	103	Report Writing	3	0	0	3
RTH	201	Continuous Mechanical Ventilation II	2	2	0	3
RTH	202	Clinical Practice IV	0	0	18	6
RTH	203	Perinatology and Pediatrics	2	2	0	3
			10	6	18	19
SIXTH QUARTER						
RTH	204	Pediatric Pathophysiology	3	0	0	3
RTH	205	Cardiopulmonary Function	3	2	0	4
RTH	206	Clinical Practice V	0	0	15	5
SOC	102H	Principles of Sociology (Health Professions)	3	0	0	3
			9	2	15	15
SEVENTH QUARTER						
EDP	112	Introduction to Microcomputers and Programming	2	2	0	3
RTH	207	Clinical Practice VI	0	0	24	8
RTH	208	Seminar	3	0	0	3
			5	2	24	14

TOTAL CREDIT HOURS FOR DEGREE 123

Cooperative Education not allowed

SECRETARIAL SCIENCE

The Secretarial Science curriculum is designed to offer students secretarial skills in typing, dictation, transcription, word processing, and terminology for employment in the business world. The special training in secretarial subjects is supplemented by related courses in mathematics, accounting, personality development, and computer concepts.

The graduate of the Secretarial Science curriculum should have a knowledge of business terminology, skill in dictation, and skill in transcription of business letters and reports. The graduate may be employed as a stenographer or a secretary. Stenographers are primarily responsible for taking dictation and transcribing letters, memoranda, or reports. The secretary, in addition to taking dictation and transcribing, is given more responsibility including meeting office callers, screening telephone calls, and assisting an executive. The graduate may enter a secretarial position in a variety of businesses such as insurance companies, banks, marketing institutions, financial firms, and law offices.

SECRETARIAL SCIENCE
CURRICULUM BY QUARTERS

			C	L	CH
FIRST QUARTER		**COURSE TITLE**			
BUS	100	Business Education Orientation	1	0	1
*ENG	101S	Secretarial Grammar	5	0	5
BUS	102	Beginning Typewriting	2	3	3
COE	100	Job Search and Career Planning	3	0	3
ENG	106	Spelling Techniques	3	0	3
BUS	134	Personal Grooming	3	0	3
			17	3	18
SECOND QUARTER					
ENG	102	Composition	3	0	3
BUS	103	Intermediate Typewriting	2	3	3
*MAT	110	Business Mathematics	5	0	5
BUS	106	Beginning Shorthand	5	0	5
BUS	106L	Shorthand Lab	0	5	0
BUS	113	Machine Transcription I	5	0	5
			20	8	21
THIRD QUARTER					
BUS	104	Advanced Typewriting	2	3	3
BUS	107	Intermediate Shorthand	5	0	5
BUS	107L	Shorthand Lab	0	5	0
BUS	114	Machine Transcription II	5	0	5
BUS	117	Electronic Calculator: Secretary	3	2	4
			15	10	17

FOURTH QUARTER		COURSE TITLE	C	L	CH
ENG	206	Business Communications	3	0	3
BUS	108	Advanced Shorthand	5	0	5
BUS	108L	Shorthand Lab	0	5	0
ACT	150	Principles of Accounting	3	2	4
EDP	114	Introduction to Computer Concepts	3	0	3
ECO	108	Consumer Economics	3	0	3
			17	7	18
FIFTH QUARTER					
BUS	216	Office Procedures	5	0	5
BUS	205	Production Typewriting	2	3	3
BUS	112	Filing	3	0	3
BUS	192	Word Processing Applications I	2	3	3
ENG	204	Oral Communications	3	0	3
			15	6	17
SIXTH QUARTER					
BUS	193	Word Processing Applications II	2	3	3
BUS	259	Office Simulation	2	3	3
BUS	271	Office Management	3	0	3
BUS	215	Office Application			
or					
COE	101A	Cooperative Education Field Experience	0	10	1
		**Elective	3	0	3
			10	16	13

TOTAL CREDIT HOURS FOR DEGREE 104

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 094, 100G, 100A, 101, 101-A, 102-A; MAT 099, 100R.

**Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

ACT 151; BUS 155, 166, 167, 183L, 183M, 191, 194, 213, 235, 290A, 290B, 290C; ECO 150, 151; EDP 112, 113; PSY 102, 103, 206; SOC 102, 103, 221; SSC 101

For information pertaining to cooperative education credits, see page 55.

VOCATIONAL PROGRAMS

AIR CONDITIONING, HEATING, AND REFRIGERATION

The Air Conditioning, Heating, and Refrigeration curriculum is designed to prepare the student to assist in planning, installing, operating, and maintaining air conditioning equipment. Technical information is presented and related skills are developed to enable the graduate to function efficiently when working with engineers, systems designers, skilled craftsmen, salesmen, and others in the field. Considerable emphasis is placed on self-development in an effort to encourage the graduate to continue to study and grow as the industry advances.

Air Conditioning, heating, and refrigeration technicians may be employed in areas of sales, installation, maintenance, production drafting, systems design, or research engineering. They work with equipment for regulating temperature and humidity and with control systems, ducts, and piping for distribution of air, water, steam, and refrigerants.

AIR CONDITIONING, HEATING, AND REFRIGERATION CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	SH	CH
AHR	1121	Principles of Refrigeration	3	0	12	7
AHR	1107	Gas Laws: Refrigeration	2	0	3	3
*MAT	1101	Fundamentals of Mathematics	5	0	0	5
*ENG	1101	Reading Improvement	2	0	0	2
DFT	1104	Blueprint Reading: Mechanical	3	0	0	3
			15	0	15	20
SECOND QUARTER						
AHR	1123	Principles of Air Conditioning	3	0	12	7
AHR	1115	Fundamentals of Heating	2	0	6	4
ENG	1102	Communication Skills	3	0	0	3
DFT	1116	Blueprint Reading: Air Conditioning	1	3	0	2
			9	3	18	16
THIRD QUARTER						
AHR	1122	Domestic and Commercial Refrigeration	3	0	6	5
AHR	1128	Automatic Controls	3	0	6	5
ELC	1102	Applied Electricity	3	3	0	4
PSY	1101	Human Relations	3	0	0	3
WLD	1102	Basic Gas Welding	0	0	3	1
			12	3	15	18

FOURTH QUARTER		COURSE TITLE	C	L	SH	CH
AHR	1124	Air Conditioning, Heating, and Refrigeration Servicing	3	0	6	5
AHR	1126	All Year Comfort Systems	3	0	6	5
MEC	1120	Duct Construction and Installation	3	0	6	5
		**Elective	3	0	0	3
			12	0	18	18

TOTAL CREDIT HOURS FOR DIPLOMA 72

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 1000; MAT 0099, 1000.

**Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

BUS 1103, 1105

For information pertaining to cooperative education credits, see page 55.

AUTOMOTIVE MECHANICS

This curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, repair, or adjust automotive vehicles. Manual skills are developed in practical shop work.

Automobile designs are rapidly changing as a result of differing buyer markets, rising fuel and production costs, and the passing of new state and federal regulations. To keep up with these changes, the auto mechanic must continue to update and add to his knowledge and skills in this area. The fundamentals of the diesel engine will be taught since this engine seems promising in the fight against pollution.

Automobile mechanics maintain and repair mechanical, electrical, and body parts of passenger cars, trucks, and buses. In some communities and rural areas, they may also service and/or inspect and test tractors and other farm vehicles or machines to determine the causes of faculty operation and repair or replace defective parts to restore the vehicles or machines to proper operating condition. They use shop manuals and other technical publications.

Automotive mechanics in smaller shops usually are general mechanics qualified to perform a variety of repair jobs. A large number of automobile mechanics specialize in particular types of repair work. For example, some may specialize in repairing only power steering and power brakes, or repairing only automatic transmissions. Usually such specialists have a general knowledge of automotive repair and may occasionally be called upon to do other types of work.

AUTOMOTIVE MECHANICS CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	SH	CH
*ENG	1101	Reading Improvement	2	0	0	2
*MAT	1101	Fundamentals of Mathematics	5	0	0	5
PME	1100	Engine Shop Practice	0	0	3	1
PME	1101	Internal Combustion Engine: Gasoline and Diesel	5	0	12	9
			12	0	15	17
SECOND QUARTER						
ENG	1102	Communication Skills	3	0	0	3
MEC	1147	Systems of Measurement and Measuring Tools	2	0	0	2
PHY	1103	Principles of Electricity	3	2	0	4
PME	1102	Electrical Systems	5	0	12	9
			13	2	12	18

THIRD QUARTER		COURSE TITLE	C	L	SH	CH
PME	1104	Fuel Systems: Gasoline and Diesel	5	0	9	8
PME	1123	Brake, Chassis, and Suspension	3	0	9	6
PSY	1101	Human Relations	3	0	0	3
			11	0	18	17
FOURTH QUARTER						
AHR	1101	Automotive Air Conditioning	3	0	6	5
PME	1124	Power Trains	3	0	9	6
WLD	1129	Basic Gas and Electric Welding	2	0	6	4
			8	0	21	15
FIFTH QUARTER						
PME	1125	Auto Servicing	3	0	9	6
PME	1204	Emission Controls	5	0	6	7
			8	0	15	13
SIXTH QUARTER						
MEC	1112	Machine Shop Processes	1	0	3	2
PME	1202	Electricity/Electronics	3	0	9	6
PME	1227	Power Accessories	2	0	6	4
			6	0	18	12
SEVENTH QUARTER						
PME	1124	Automotive Transmissions	5	0	12	9
PME	1230	Auto Service Excellence Test Review	5	0	0	5
			10	0	12	14

TOTAL CREDIT HOURS FOR DIPLOMA 106

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 1000; MAT 0099, 1000.

Students enrolled in this curriculum may select additional elective credits from approved courses and make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

For information pertaining to cooperative education credits, see page 55.

CARPENTRY AND CABINETMAKING

Carpentry is one of the basic trades in the construction field. Carpenters construct, erect, install, and repair structures of wood, plywood, and wallboard, using hand and power tools. The work must conform to local building codes for both residential and commercial structures.

The curriculum is carpentry is designed to train individuals to enter the trade with a background in both shop skills and related information. They must have knowledge of mathematics, blueprint reading, methods or construction, building materials, concrete form construction, rough framing, roof and stair construction, the application of interior and exterior trim, and the installation of cabinets and fixtures.

Most carpenters are employed by contractors in the building construction fields. Specialists may work as layout carpenters, framing carpenters, concrete form carpenters, scaffolding carpenters, accoustical and insulating carpenters, and finish carpenters.

CARPENTRY AND CABINETMAKING CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	SH	CH
CAR	1101	Carpentry	3	0	15	8
DFT	1110	Blueprint Reading: Building Trades	3	0	0	3
*ENG	1101	Reading Improvement	2	0	0	2
*MAT	1101	Fundamentals of Mathematics	5	0	0	5
			13	0	15	18
SECOND QUARTER						
CAR	1102	Carpentry: Millwork and Cabinetmaking	3	0	15	8
DFT	1111	Blueprint Reading and Sketching I	3	0	0	3
ENG	1102	Communication Skills	3	0	0	3
MAT	1112	Building Trades Mathematics	3	0	0	3
			12	0	15	17
THIRD QUARTER						
CAR	1103	Carpentry: Framing	3	0	15	8
CAR	1113	Carpentry: Estimating	3	0	3	4
PSY	1101	Human Relations	3	0	0	3
			9	0	18	15
FOURTH QUARTER						
BUS	1103	Small Business Operations	3	0	0	3
CAR	1104	Carpentry: Finishing I	3	0	18	9
CAR	1114	Building Codes	3	0	0	3
			9	0	18	15

TOTAL CREDIT HOURS FOR DIPLOMA 65

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 1000; MAT 0099, 1000.

Students enrolled in this curriculum may select additional elective credits from approved courses and make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

For information pertaining to cooperative education credits, see page 55.

COSMETOLOGY

Cosmetologists perform many functions in providing beauty services for customers. These services may include styling, cutting, trimming, straightening, permanent waving, coloring, tinting, bleaching, and shampooing hair and wig styling and wig care services. They sometimes do make-up analysis, suggest cosmetology aids, and advise customers regarding what products to use and how to use them with the greatest benefits.

Designed to prepare the student for employment in the field of cosmetology, the Cosmetology curriculum provides instruction and practice in manicuring; facials; massages; scalp treatments; shampooing, permanent waving, cutting, styling, pressing, chemical relaxing, thermal waving, and curling hair; and wig care services. The Cosmetology curriculum is approved by the North Carolina State Board of Cosmetic Art Examiners.

State laws and regulations require the completion of a minimum of 1200 contact hours of instruction in prescribed subject matter prior to applying to the State Board of Cosmetic Art Examiners for examination. For additional information pertaining to rules and regulations governing the Cosmetology curriculum, contact the North Carolina State Board of Cosmetic Art Examiners, Box 1108, Raleigh, North Carolina.

COSMETOLOGY
CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	SH	CH
COS	1101	Cosmetology I	0	0	40	12
SECOND QUARTER						
COS	1102	Cosmetology II	0	0	40	12
THIRD QUARTER						
COS	1103	Cosmetology III	0	0	40	12
FOURTH QUARTER						
COS	1104	Cosmetology IV	0	0	40	12

TOTAL CREDIT HOURS FOR DIPLOMA 48

Cooperative Education not allowed

DIESEL ENGINE AND FARM MACHINERY MECHANICS

This curriculum is designed to provide broad training to permit entrance into the field best suited to the interest and aptitude of the graduate. Emphasis is placed on the basic theories of diesel engine and farm machinery mechanics and techniques of maintenance, trouble-shooting, and repair of general farm machinery with specialization to be developed later in employment.

Graduates of this curriculum can quickly adapt themselves for employment in the areas of sales, service, distribution, and installations or provide the service that must be done in the field. They make inspections and tests to determine the causes of faulty operation and repair or replace defective parts to restore the tractor or other gasoline-powered equipment to proper operating condition.

DIESEL ENGINE AND FARM MACHINERY MECHANICS CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	SH	CH
*ENG	1101	Reading Improvement	2	0	0	2
*MAT	1101	Fundamentals of Mathematics	5	0	0	5
PME	1105	Fundamentals of Diesel Engines	5	0	6	7
PME	1135	Basic Fuel Systems: Gasoline and Diesel	3	0	3	4
AGR	119	Techniques of Welding	2	0	3	3
			17	0	12	21
SECOND QUARTER						
COE	100	Job Search and Career Planning	3	0	0	3
ENG	1102	Communication Skills	3	0	0	3
PME	1106	Fundamentals of Diesel Engines	1	0	6	3
PME	1137	Basic Power Transmission	4	0	6	6
PME	1050	New Tractor and Equipment Setup	1	0	3	2
PME	1126	Small Engine Repairs	1	0	3	2
			13	0	18	19
THIRD QUARTER						
COE	101D	Cooperative Education Intern	0	0	40	4
or						
PME	1045	Farm Equipment Servicing	3	0	12	7
and						
PME	1046	Shop Practices and Tool Operations	3	0	6	5
			0-6	0	18-40	4-12

FOURTH QUARTER		COURSE TITLE	C	L	SH	CH
PME	1010	Air Conditioning	2	0	3	3
PME	1136	Fundamental Hydraulics	2	0	6	4
PME	1030	Electrical Systems in Farm Equipment	3	0	3	4
PME	1040	Farm Harvesting Equipment	3	0	6	5
PSY	1101	Human Relations	3	0	0	3
			13	0	18	19

TOTAL CREDIT HOURS FOR DIPLOMA 63-71

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 1000; MAT 0099, 1000.

Students enrolled in this curriculum may select additional elective credits from approved courses and make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

For information pertaining to cooperative education credits, see page 55.

ELECTRICAL INSTALLATION AND MAINTENANCE

The Electrical Installation and Maintenance curriculum provides training in the basic fundamentals and practices involved in the electrical trades. A major portion of the program is devoted to laboratory and shop instruction designed to give the student practical knowledge and experience in applying the fundamentals taught in class.

Graduates of the electrical trades program will be qualified to enter an electrical trade as on-the-job trainees or apprentices, where they will assist in the planning, layout, installation, check out, and maintenance of systems in residential, commercial, or industrial plants. They will have an understanding of the fundamentals of the National Electric Code regulations as related to wiring installations, electrical circuits, and the measurements of voltage, current, power, and power factor of single and polyphase alternating circuits. They will have a basic knowledge of motor and motor control systems; industrial electronic control systems; business procedures, organization, and practices; communicative skills; and the necessary background to be able to advance through experience and additional training.

ELECTRICAL INSTALLATION AND MAINTENANCE CURRICULUM BY QUARTERS

			C	L	SH	CH
FIRST QUARTER		**COURSE TITLE**				
DFT	1110	Blueprint Reading: Building Trades	3	0	0	3
ELC	1112	Direct and Alternating Current	5	0	12	9
ELC	1114	Electrical Safety	3	0	0	3
*ENG	1101	Reading Improvement	2	0	0	2
*MAT	1101	Fundamentals of Mathematics	5	0	0	5
			18	0	12	22
SECOND QUARTER						
DFT	1113	Blueprint Reading and Sketching III	3	0	0	3
ENG	1102	Communication Skills	3	0	0	3
ELC	1113	Alternating Current and Direct Current Machines and Controls	5	0	12	9
PSY	1101	Human Relations	3	0	0	3
PHY	1101	Applied Science	3	2	0	4
			17	2	12	22
THIRD QUARTER						
ELC	1124	Residential Wiring	5	0	9	8
ELN	1118	Industrial Electronics	3	0	6	5
MEC	1140	Hydraulic and Pneumatic Fundamentals	3	0	3	4
			11	0	18	17

FOURTH QUARTER		COURSE TITLE	C	L	SH	CH
BUS	1103	Small Business Operations	3	0	0	3
ELC	1125	Commercial and Industrial Wiring	5	0	12	9
ELN	1119	Industrial Electronics	3	0	6	5
			11	0	18	17

TOTAL CREDIT HOURS FOR DIPLOMA 78

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 1000; MAT 0099, 1000.

Students enrolled in this curriculum may select additional elective credits from approved courses and make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

For information pertaining to cooperative education credits, see page 55.

ELECTRONIC SERVICING

Within recent years, rapid advances in electronics technology have created an increased need for skilled electronic service representatives. Individuals who expect to qualify as competent and up-to-date service representatives must expand their knowledge and skills to meet the job needs of the fast-growing electronics industry.

The Electronic Servicing curriculum provides training in the knowledge and skills required for the installation, maintenance, and servicing of electronic systems. A major portion of the time is spent in the laboratory verifying electronic principles and developing servicing techniques.

A service representative may be required to install, maintain, and service many types of electronic systems. The service representative may be employed in one or more of the following areas: electrician, radio and television servicing, broadcast technician, or as a technician in many industrial applications including manufacturing, quality control, and sales of electronic equipment. Other opportunities are available in other phases of industry depending upon the individual's interest and ability.

ELECTRONIC SERVICING CURRICULUM BY QUARTERS

			C	L	SH	CH
FIRST QUARTER		**COURSE TITLE**				
ELC	1110	Direct Current Theory and Practice	5	0	12	9
*ENG	1101	Reading Improvement	2	0	0	2
*MAT	1101	Fundamentals of Mathematics	5	0	0	5
			12	0	12	16
SECOND QUARTER						
ELC	1111	Alternating Current Theory and Practice	5	0	12	9
ENG	1102	Communication Skills	3	0	0	3
MAT	1102	Algebra	5	0	0	5
			13	0	12	17
THIRD QUARTER						
ELN	1103	Introduction to Control Devices	5	0	12	9
ELN	1125	Radio Receiver Servicing	5	0	0	5
MAT	1103	Basic Geometry and Trigonometry	5	0	0	5
			15	0	12	19
FOURTH QUARTER						
ELN	1127	Television Receiver Circuits and Servicing	10	0	15	15
BUS	1103	Small Business Operations	3	0	0	3
			13	0	15	18

TOTAL CREDIT HOURS FOR DIPLOMA 70

Students who desire to complete the two-year advanced diploma program must first complete the four-quarter diploma program; then enroll full-time and complete the last three quarters, thereby earning an advanced diploma.

FIFTH QUARTER		COURSE TITLE	C	L	SH	CH
ELN	1104	Application of Control Devices	5	0	12	9
ELN	1111	Electronic Troubleshooting	3	0	0	3
ELN	1108	Digital Concepts I	3	0	3	4
			11	0	15	16
SIXTH QUARTER						
PHY	1101	Applied Science	3	2	0	4
ELN	1105	Intudtrial Elecronics and Instrumentation	5	0	12	9
ELN	1110	Digital Concepts II	3	0	3	4
			11	2	15	17
SEVENTH QUARTER						
ELN	1106	Maintenance and Analysis of Electronic Systems	5	0	12	9
ELN	1107	Communications	3	0	0	3
PSY	1101	Human Relations	3	0	0	3
			11	0	12	15

TOTAL CREDIT HOURS FOR ADVANCED DIPLOMA 118

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 1000; MAT 0099, 1000.

Students enrolled in this curriculum may select additional elective credits from approved courses and make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

For information pertaining to cooperative education credits, see page 55.

INDUSTRIAL MAINTENANCE: ELECTROMECHANICAL

This curriculum is designed to meet the need for plant maintenance workers. Existing industries in North Carolina and new industries moving into the state express the need for skilled craftsmen with the background, knowledge, and potential to advance in the plant maintenance field. This curriculum is designed to prepare the individual, through theory and practice of various maintenance skills and related courses, to obtain employment in industrial maintenance occupations.

This curriculum is designed to prepare individuals to repair and maintain mechanical systems and equipment, plumbing, physical structure, and electrical wiring and fixtures of commercial and industrial establishments. They measure, cut, and install pipe and tubing for gas, water, and hydraulic lines using appropriate tools. They may install electrical equipment and repair or replace wiring and fixtures. They do repair work on metal structures and equipment using welding equipment. They may operate metalworking machines to repair or fabricate new parts. They may clean, lubricate, repair, and replace various machine parts including bearings, gears, pulleys, gauges, valves, and control devices.

The plant maintenance worker may start in one of the following areas: general maintenance helper, factory or mill maintenance repairer helper, and millwright helper. Advanced jobs in the field include plant maintenance worker, factory or mill maintenance repairer, millwright, powerhouse mechanic, maintenance electrician, mechanical maintenance supervisor, and utilities and maintenance supervisor.

INDUSTRIAL MAINTENANCE: ELECTROMECHANICAL CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TILE	C	L	SH	CH
*MAT	1101	Fundamentals of Mathematics	5	0	0	5
*ENG	1101	Reading Improvement	2	0	0	2
DFT	1104	Blueprint Reading: Mechanical	3	0	0	3
ELC	1112	Direct and Alternating Current	5	0	12	9
PSY	1101	Human Relations	3	0	0	3
			18	0	12	22
SECOND QUARTER						
ENG	1102	Communication Skills	3	0	0	3
DFT	1113	Blueprint Reading and Sketching III	3	0	0	3
MEC	1140	Hydraulics and Pneumatics Fundamentals	3	0	3	4
ELC	1113	AC and DC Machine and Controls	5	0	12	9
PHY	1101	Applied Science	3	2	0	4
			17	2	15	23

THIRD QUARTER		COURSE TITLE	C	L	SH	CH
WLD	1102	Basic Gas Welding	0	0	3	1
MEC	1133	Electrical and Mechanical Maintenance	3	0	6	5
ISC	1101	Industrial Safety	3	0	0	3
PLU	1110	Plumbing Pipework	3	0	9	6
			9	0	18	15
FOURTH QUARTER						
WLD	1103	Basic Arc Welding	0	0	3	1
MEC	1134	Electrical and Mechanical Maintenance	3	0	6	5
AHR	1102	Introduction to Cooling and Heating Systems	3	0	9	6
BUS	1105	Industrial Organizations	3	0	0	3
			9	0	18	15

TOTAL CREDIT HOURS FOR DIPLOMA 75

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list: ENG 1000; MAT 0099, 1000.

Students enrolled in this curriculum may select additional elective credits from approved courses and make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

For information pertaining to cooperative education credits, see page 55.

MACHINIST

The Machinist curriculum is designed to provide training in the basic skills and related technical information necessary to gain employment and build a profitable career in the machine shop industry.

Machinists are skilled metal workers who shape metal parts by using machine tools and hand tools. Their training and experience enables them to plan and carry through all the operations needed in turning out a machined product and to switch readily from one kind of product to another. Machinists are able to select the proper tools and materials required for each job and to plan to cutting and finishing work according to blueprint or written specifications. They make standard shop computations relating to dimensions of work, tooling, feeds, and speeds of machining. They often use precision measuring instruments such as micrometers and gauges to measure to the thousandths of an inch the accuracy of their work.

These skilled machinists must be able to set up and operate most types of machine tools. They must also know the composition of metals so that they can heat and quench cutting tools and parts to improve machine-ability. Their wide knowledge enables them to turn a block of metal into an intricate, precise machined part.

MACHINIST
CURRICULUM BY QUARTERS

FIRST QUARTER		COURSE TITLE	C	L	SH	CH
DFT	1104	Blueprint Reading: Mechanical	3	0	0	3
*ENG	1101	Reading Improvement	2	0	0	2
*MAT	1101	Fundamentals of Mathematics	5	0	0	5
MEC	1101	Machine Shop Theory and Practice	3	0	12	7
ISC	1101	Industrial Safety	3	0	0	3
			16	0	12	20
SECOND QUARTER						
DFT	1105	Blueprint Reading: Mechanical	3	0	0	3
ENG	1102	Communication Skills	3	0	0	3
MAT	1102	Algebra	5	0	0	5
MEC	1102	Machine Shop Theory and Practice	3	0	12	7
PHY	1101	Applied Science	3	2	0	4
			17	2	12	22
THIRD QUARTER						
DFT	1106	Blueprint Reading: Mechanical	3	0	0	3
MAT	1103	Basic Geometry and Trigonometry	5	0	0	5
MEC	1103	Machine Shop Theory and Practice	3	0	12	7
MEC	1115	Metallurgy: Ferrous Metals	2	3	0	3
PSY	1101	Human Relations	3	0	0	3
			16	3	12	21

FOURTH QUARTER		COURSE TITLE	C	L	SH	CH
DFT	1201	Drafting: Mechanical I	1	3	0	2
MEC	1104	Machine Shop Theory and Practice	3	0	12	7
MEC	1116	Metallurgy: Non-Ferrous Metals	2	3	0	3
MEC	1170	Introduction to CNC Machining	1	2	0	2
WLD	1102	Basic Gas Welding	0	0	3	1
			7	8	15	15

TOTAL CREDIT HOURS FOR DIPLOMA 78

*If students, as a result of placement tests, are found to be deficient in math and English, they will be required to take the appropriate courses from the following list:

ENG 1000; MAT 0099, 1000.

Students enrolled in this curriculum may select additional elective credits from approved courses and make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

For information pertaining to cooperative education credits, see page 55.

MASONRY

Masons are the artisans in the building trades who work with brick, concrete masonry units, stone and artificial stone, and other similar building materials in the construction industry. Most masons are employed by contractors in the building construction fields to lay brick and blocks made of tile, concrete, glass, gypsum, or terra cotta. Also, they construct and repair walls, partitions, arches, sewers, furnaces, and other masonry structures. Masons must have a knowledge of basic mathematics, blueprint reading, and masonry technology. They must also know the methods used in laying out a masonry job with specific reference to rigid insulation, refractories, and masonry units specified for residential, commercial, and industrial construction.

Most employment opportunities for masons are with contractors in new building construction. However, a substantial proportion of masons are self-employed or work with contractors doing repair, alteration, or modernization of existing masonry construction.

After gaining experience in the various types of the masonry trade along with leadership training, it is possible for the artisan to become a technical inspector and to eventually become a contractor.

MASONRY
CURRICULUM BY QUARTERS

			C	L	SH	CH
FIRST QUARTER		**COURSE TITLE**				
DFT	1110	Blueprint Reading: Building Trades	3	0	0	3
MAS	1101	Bricklaying I	3	0	21	10
MAT	1111	Building Trades Mathematics: Masonry	3	0	0	3
			9	0	21	16
SECOND QUARTER						
DFT	1111	Blueprint Reading and Sketching I	3	0	0	3
MAS	1102	Bricklaying II	3	0	21	10
MAT	1113	Building Trades Mathematics: Masonry	3	0	0	3
			9	0	21	16
THIRD QUARTER						
DFT	1112	Blueprint Reading and Sketching II	3	0	0	3
MAS	1103	Bricklaying III	2	0	21	9
MAS	1113	Masonry Estimating I	1	0	3	2
			6	0	24	14

FOURTH QUARTER		COURSE TITLE	C	L	SH	CH
DFT	1114	Blueprint Reading and Sketching: Masonry	3	0	0	3
MAS	1104	Bricklaying IV	2	0	21	9
MAS	1114	Masonry Estimating II	1	0	3	2
			6	0	24	14

TOTAL CREDIT HOURS FOR DIPLOMA 60

Students enrolled in this curriculum may select additional elective credits from approved courses and make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

For information pertaining to cooperative education credits, see page 55.

SURGICAL TECHNOLOGY

The twelve-month Surgical Technology curriculum offers students opportunities to acquire knowledge in areas of anatomy, physiology, microbiology, principles of asepsis, and preparation of the operating room for surgery. The primary objectives of the program are to prepare the graduate to assist in the care of surgical patients in the operating room and function on the surgical team by arranging supplies and instruments, maintaining aseptic conditions, preparing patients for surgery, and assisting the surgeon during operations in the use of materials and equipment. Graduates of the program are eligible to write the certifying examination given by the Association of Surgical Technologists. Passing the certifying examination entitles the graduate to use the title "Certified Surgical Technologist."

The surgical technologist works under the direct supervision of a registered professional nurse and/or licensed physician. They may practice in the hospital's operating, emergency, labor and delivery rooms, central sterile processing department, ambulatory surgical services, and physicians' offices.

This curriculum is inactive.

SURGICAL TECHNOLOGY CURRICULUM BY QUARTERS

			C	L	CL	CH
FIRST QUARTER		**COURSE TITLE**				
BIO	107	Anatomy and Physiology I	4	2	0	5
BIO	1104	Introduction to Microbiology	2	2	0	3
SUR	1102	Orientation to Surgical Technology	4	0	0	4
SUR	1103	Medical Surgical Terminology	3	0	0	3
SUR	1114	Principles and Practices of Operating Room Techniques	4	6	0	7
			17	10	0	22
SECOND QUARTER						
BIO	108	Anatomy and Physiology II	4	2	0	5
SUR	1115	Pharmacology for Operating Room	2	0	0	2
SUR	1116	Surgical Procedures and Clinical Practice I	8	0	15	13
			14	2	15	20
THIRD QUARTER						
ENG	101	Grammar	3	0	0	3
SUR	1127	Surgical Procedures and Clinical Practice II	8	0	18	14
			11	0	18	17

FOURTH QUARTER		COURSE TITLE	C	L	SH	CH
PSY	102H	General Psychology for Allied Health	3	0	0	3
SUR	1128	Surgical Specialties and Clinical Practice III	4	0	21	11
			7	0	21	14

TOTAL CREDIT HOURS FOR DIPLOMA 73

Students enrolled in this curriculum may select additional elective credits from approved courses and make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

Cooperative Education not allowed

TEACHER ASSISTANT

The Teacher Assistant curriculum is designed to prepare the student for work in assisting the professional teacher, freeing the latter for teaching duties. Students will receive extensive training for duties normally assigned to assistants, including operating audiovisual equipment and making audiovisual teaching/learning materials, typing, and assisting in reading instruction.

The graduate will be prepared to use a variety of audiovisual materials, to make transparencies and stencils, to assist with physical education programs, to construct bulletin boards, and, in general, to help teachers in the performance of classroom duties.

TEACHER ASSISTANT
CURRICULUM BY QUARTERS

			C	L	CL	CH
FIRST QUARTER		**COURSE TITLE**				
EDU	102	Child Health and Safety	3	0	0	3
EDU	103	Preschool Orientation	1	0	6	3
*MAT	100R	Computational Skills	5	0	0	5
PSY	115	Child Growth and Development: Prenatal-Early Childhood	3	0	0	3
SPH	150	Voice and Diction	3	0	0	3
			15	0	6	17
SECOND QUARTER						
BUS	102	Beginning Typewritting	2	3	0	3
EDU	104	Preschool Observation	1	0	6	3
EDU	231	Creative Activities	5	0	0	5
*ENG	101	Grammar	3	0	0	3
PSY	116	Child Growth and Development: Middle Childhood-Adolescence	3	0	0	3
PSY	102	General Psychology	3	0	0	3
			17	3	6	20
THIRD QUARTER						
EDU	106	Practicum in Elementary School	1	0	15	6
EDU	111	Language Arts Techniques I	5	0	0	5
EDU	115	Audiovisual and Media Instruction	3	0	0	3
ENG	102	Composition	3	0	0	3
SOC	101	Introduction to Sociology	5	0	0	5
			17	0	15	22

FOURTH QUARTER		COURSE TITLE	C	L	SH	CH
ENG	103	Report Writing	3	0	0	3
EDU	203	Exceptional Child	5	0	0	5
EDU	107	Practicum in Preschool Experience	1	0	15	6
			9	0	15	14

TOTAL CREDIT HOURS FOR DIPLOMA 73

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 094, 100G, 100A, 101-A, 102-A; MAT 099.

Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

BUS 110, 112, 134; CAT 110; COE 100; ECO 150; EDU 240, 241A, 241B; ENG 105, 106; PHY 120; POL 102; PSY 206; SOC 103; SSC 101

For information pertaining to cooperative education credits, see page 55.

WELDING

The Welding curriculum is designed to provide students with opportunities to acquire an understanding of the principles, methods, techniques, and skills essential for successful employment in the welding field and metals industry. The program prepares students for employment in practically any industry: shipbuilding, automotive, aircraft, guided missiles, railroads, construction, pipe fitting, production shop, job shop, and many others.

Welders join metals by applying intense heat and sometimes pressure to melt the edges to form a permanent bond. Of the more than 35 different ways of welding metals, arc, gas, and resistance welding are the three most widely used and are emphasized in this program. Closely related to welding is "oxygen cutting."

The principal duty of the welder using manual techniques is to control the melting by directing the heat from either an electric arc or gas welding torch and to add filler metal where necessary to complete the joint. Welders must possess high-level manipulative skill and knowledge of jigs, welding symbols, mathematics, basic metallurgy, and blueprint reading.

WELDING
CURRICULUM BY QUARTERS

			C	L	SH	CH
FIRST QUARTER		**COURSE TITLE**				
DFT	1104	Blueprint Reading: Mechanical	3	0	0	3
*ENG	1101	Reading Improvement	2	0	0	2
*MAT	1101	Fundamentals of Mathematics	5	0	0	5
WLD	1141	Beginning Welding	5	0	15	10
			15	0	15	20
SECOND QUARTER						
DFT	1117	Blueprint Reading: Welding	3	0	0	3
ENG	1102	Communication Skills	3	0	0	3
MAT	1103	Basic Geometry and Trigonometry	5	0	0	5
WLD	1142	Intermediate Welding	5	0	15	10
			16	0	15	21
THIRD QUARTER						
DFT	1118	Pattern Development and Sketching	3	0	0	3
PSY	1101	Human Relations	3	0	0	3
WLD	1112	Mechanical Testing and Inspection	1	0	3	2
WLD	1123	Inert Gas Welding	1	0	3	2
WLD	1124	Pipe Welding	3	0	12	7
			11	0	18	17

FOURTH QUARTER		COURSE TITLE	C	L	SH	CH
BUS	1105	Industrial Organizations	3	0	0	3
MEC	1112	Machine Shop Processes	1	0	3	2
WLD	1122	Commercial and Industrial Practices	3	0	9	6
WLD	1125	Certification Practices	3	0	6	5
			10	0	18	16

TOTAL CREDIT HOURS FOR DIPLOMA 74

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 1000; MAT 0099, 1000.

Students enrolled in this curriculum may select additional elective credits from approved courses and make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

For information pertaining to cooperative education credits, see page 55.

HOSPITAL WARD SECRETARY

The hospital ward secretary performs a variety of clerical duties on the patient care units of a hospital. Responsibilities include maintenance of patient charts and requesting equipment, supplies, and services for the patient and for the nursing unit. Skillful communication in person and on the telephone with health care professionals, patients, and visitors is an essential component of the job description. This one quarter program includes both classroom and clinical experiences.

FIRST QUARTER		COURSE TITLE	C	L	CL	CH
MED	1100	Hospital Ward Secretary: Theory and Practice	12	0	12	16
ENG	1102	Communication Skills	3	0	0	3
PSY	104	Human Relations	3	0	0	3
			18	0	12	22

TOTAL CREDIT HOURS FOR CERTIFICATE 22

Cooperative Education not allowed.

NURSING ASSISTANT

The nursing assistant is an integral part of the health care team. The nursing assistant's duties consist primarily of assisting patients with activities of daily living and performing selected simple nursing tasks. The nursing assistant functions only under the supervision of a registered nurse or other licensed health care professional. This one quarter program includes both classroom and clinical experiences.

FIRST QUARTER		COURSE TITLE	C	L	CL	CH
NUR	1100	Nursing Assistant Theory and Clinical Practice	9	0	21	16

TOTAL CREDIT HOURS FOR CERTIFICATE 16

Cooperative Education not allowed.

SURVEYING
(TECHNICAL SPECIALTY)

The Surveying curriculum is designed for persons interested in learning to assist surveyors or engineers in land, forest, highway, marine, and other types of surveying. The emphasis of the program may be adapted by choice of electives. A certificate is awarded to students completing the program.

The graduates of this program will be prepared to determine exact location and measurements of points, elevations, lines, areas, and contours of the surface of the earth for construction, map making, land valuation, mining, or other purposes. They may calculate information needed to conduct surveys from notes, maps, deeds, or other records. They will use surveying instruments and perform calculations to verify the accuracy of survey data.

SURVEYING
(TECHNICAL SPECIALTY)
CURRICULUM

BASIC COURSES		COURSE TITLE	C	L	SH	CH
CIV	101	Surveying	2	0	6	4
CIV	102	Surveying	2	0	6	4
CIV	103	Surveying	2	0	6	4
CIV	204	Surveying	2	0	6	4
DFT	101	Technical Drafting	0	6	0	2
MAT	101	Algebra I	5	0	0	5
MAT	102	Trigonometry	5	0	0	5
TOTAL CREDIT HOURS FOR CERTIFICATE						28

Students who wish to acquire additional surveying skills may take any of the following courses:

ELECTIVE COURSES						
CIV	110	Surveyor Practices	1	0	0	1
CIV	223	Codes, Contracts, and Specifications	2	0	0	3
FOR	208	Forest Surveying	2	0	3	3
MAT	103	Algebra II	5	0	0	5

For information pertaining to cooperative education credits, see page 55.

COURSE PREFIX IDENTIFICATION

COURSE DESCRIPTIONS

			Class	Lab	Clinical/Shop	Credit Hours
ACCOUNTING						
ACT	**150**	**Principles of Accounting**	**3**	**2**	**0**	**4**

Prerequisite: MAT 110 or permission of instructor
Basic accounting concepts as applied to a single proprietorship. Practical problems requiring the use of journals and general ledgers, preparation and analysis of work sheets, the balance sheet, and income statements. Introduction to basic concepts of internal control included.

ACT	**151**	**Principles of Accounting**	**3**	**2**	**0**	**4**

Prerequisite: ACT 150
An expanded study of the accounting cycle with emphasis on the recording, summarizing, and interpreting of data for management control. Includes a study of payrolls, federal and state taxes, and basic applications for computerized accounting.

ACT	**152**	**Principles of Accounting**	**3**	**2**	**0**	**4**

Prerequisite: ACT 151
Partnership and corporation accounting, including a study of financial statement analysis and use of financial ratios.

AGRICULTURE

AGR	**103**	**Feeding and Management**	**3**	**0**	**0**	**3**

Study of applied principles and concepts of animal nutrition. Problems associated with feeding livestock, nutritional diseases, balancing rations, feed additives, feedstuffs, and anatomy and physiology of the digestive systems of farm animals. Includes management and economic problems associated with the feeding and marketing of livestock.

AGR	**105**	**Pastures and Forage Crops**	**3**	**0**	**0**	**3**

Study of the major grasses and legumes of economic importance in North Carolina. Attention given to management, soil types, fertilization, harvesting, and nutrient value.

AGR	**107**	**Farm Enterprise Management**	**3**	**0**	**0**	**3**

Introduces accounting methods related to farm enterprises and acquaints students with the terminology and basic principles and techniques used in recording transactions. Practical application of the principles learned by working with actual farm situations. Includes economic principles as applied to the decision making process in the analysis of farm records.

AGR	**112**	**Small Engine Repair**	**2**	**2**	**0**	**3**

Study of two- and four-cycle, one-cylinder gasoline engines and their power trains. Students taught preventive maintenance, troubleshooting, and repair of the typical auxiliary engine on the farm.

AGR	**116**	**Farm Welding**	**2**	**2**	**0**	**3**

Introduces welding safety and principles of oxyacetylene and electrical welding, cutting, and brazing. Procedures and experience in using arc and oxyacetylene welding equipment. Brief study of metals, rods, gases, and special welding machinery.

			Class	Lab	Clinical/Shop	Credit Hours
AGR	**119**	**Techniques of Welding**	**2**	**3**	**0**	**3**

Study of principles of oxyacetylene and electrical welding, cutting, and brazing; principles, procedures, safety precautions, and experience in using oxyacetylene and arc welding equipment; and projects to develop skill in the use of equipment. Also includes a study of metals, rods, gases, and special electrical welding machinery.

AGR	**121**	**Crop Production**	**3**	**0**	**0**	**3**

Study of the characteristics of field crops relative to varieties, environmental factors, rotations, fertilization, control of pests, and cultural practices pertinent to crop production.

AGR	**125**	**Animal Science**	**5**	**2**	**0**	**6**

Introductory animal science course covering the financial principles of livestock production. Study of the animal body and the basic principles of reproduction, genetics, growth, fattening, and digestion; and of the selection, feeding, improvement, processing, and marketing of livestock.

AGR	**127**	**Animal Nutrition**	**3**	**0**	**0**	**3**

Deals with the principles of nutrition and their application to feeding practices in cattle, horses, sheep, and swine production in North Carolina.

AGR	**128**	**Farm and Home Construction**	**2**	**2**	**0**	**3**

Deals with the fundamentals of farm carpentry, fences, concrete, and masonry. Part of the course gives students an opportunity to learn and practice home construction projects such as farm utility buildings. Also includes a study of farm water needs and waste disposal. Attention is given to planning farm water and plumbing systems and their proper care and maintenance.

AGR	**135**	**Agricultural Law**	**3**	**0**	**0**	**3**

Designed to acquaint the agricultural student with certain fundamentals and principles of law, including contracts, agency, and negotiable instruments. Includes the general study of law pertaining to partnership, corporation, sales, suretyship, bailments, and real property.

AGR	**136**	**Agricultural Mathematics**	**3**	**0**	**0**	**3**

Stresses the fundamental mathematics operations and their application to business problems. Topics covered include payrolls, price marking, interest and discount, commission, taxes, and pertinent use of mathematics in the field of business.

AGR	**149**	**Introduction to Plant Science and Horticulture**	**3**	**0**	**0**	**3**

Introduction to botany as applied to higher plants. The fundamental principles of plant processing, reproduction (sexual and asexual), growth, and development. Application of plant processes to certain commercially grown field and horticultural crops.

AGR	**150**	**General Horticulture**	**3**	**0**	**0**	**3**

Deals with horticultural principles and the application of plant science fundamentals to horticultural practices.

			Class	Lab	Clinical/Shop	Credit Hours
AGR	**154**	**Swine Production**	**3**	**0**	**0**	**3**

Study of the scientific methods of selecting, breeding, feeding, and managing swine. Special attention is given to housing and marketing.

AGR	**170**	**Plant Science**	**5**	**2**	**0**	**6**

Introductory general botany and crop science course covering the fundamental principles of the reproduction, growth, functions, and development of seedbearing plants with application to certain commercially important plants in North Carolina.

AGR	**185**	**Soil Science and Fertilizers**	**5**	**2**	**0**	**6**

Deals with the basic principles of efficient classification, evaluation, and management of soils; care, cultivation, and fertilization of the soil; and conservation of soil fertility.

AGR	**187**	**Fertilizers and Lime**	**3**	**0**	**0**	**3**

Review of the source, function, and use of the major and minor plant food elements; commercial fertilizer ingredients; soil acidity and liming materials; and the application of fertilizer and liming materials.

AGR	**190**	**Soils and Soil Fertility**	**2**	**2**	**0**	**3**

Deals primarily with physical and chemical properties of soils in coastal and piedmont North Carolina. Includes the function and use of major and minor plant food elements and liming materials.

AGR	**195**	**Cultural and Irrigation Practices**	**3**	**0**	**0**	**3**

Deals with various tillage and cultural practices such as conventional, "no-till," and minimum tillage; the economical aspects of labor and fuel efficiency; and drainage and timely application of supplemental water to obtain maximum output.

AGR	**198**	**Practical Application of Agricultural Chemicals**	**2**	**2**	**0**	**3**

Study of farm chemicals and fertilizers—their importance, ingredients, and formulation and the equipment involved in application. Special emphasis on practical farm application.

AGR	**201**	**Agricultural Chemicals (Pesticides)**	**3**	**0**	**0**	**3**

Study of agricultural chemicals and their importance; the ingredients, formulation, and application of farm chemicals; and the effective and safe utilization of chemicals in agricultural pest control. Major emphasis is placed on insecticides, fungicides, nematocides, herbicides, and other commonly used pesticides.

AGR	**203**	**Pesticide and Fertilizer Application**	**3**	**2**	**0**	**4**

Study of and practical exercise in the correct application of pesticides and fertilizers. Economics of custom application and equipment, precautions, and legal aspects of application are presented.

AGR	**204**	**Agricultural Economics and Farm Records**	**3**	**2**	**0**	**4**

Introduction to economics, the functions of the economic system, and agriculture's role in the economy. Economic principles as applied to the decision-making process in the analysis of farm records are also included.

			Class	Lab	Clinical/Shop	Credit Hours
AGR	**205**	**Agricultural Marketing**	**3**	**2**	**0**	**4**

Analysis of the functions of marketing in the economy; a survey of the problems marketing faces; and a review of the market structure and the relationship of local, terminal, wholesale, retail, and foreign markets. Problems in the operations of marketing firms, including buying and selling, processing, standardization and grading, risk-taking and storage, financing, efficiency, and cooperation; and discussions of procedures for marketing commodities such as grain, cotton, livestock, and tobacco are included.

AGR	**206**	**Marketing Farm Products**	**3**	**0**	**0**	**3**

Looks at the market structure including local, terminal, wholesale, and retail markets. Emphasis on the marketing of grain, tobacco, soybeans, swine, beef, and poultry. Includes study of hedging and futures markets as a management tool.

AGR	**207**	**Poultry Enterprises**	**3**	**0**	**0**	**3**

Review of the growth of the various poultry enterprises including market eggs, hatching eggs, and broiler production; marketing procedures; determining and controlling costs of production; choosing breeds and determining flock size, feeding systems, conversion ratios, labor efficiency, and other management factors.

AGR	**215**	**Farm Machinery Repair and Maintenance**	**2**	**2**	**0**	**3**

Selection, care, and repair of large units of farm equipment and operating principles of self-propelled and tractor-drawn equipment studied in the classroom and in the field. Equipment such as balers, combines, corn pickers, and peanut harvesters included in the study.

AGR	**218**	**Agricultural Mechanization**	**3**	**0**	**0**	**3**

Study of farm machinery management, laborsaving devices, and the economics of selection and operation of farm machinery. Includes study and evaluation of feed grinders and mixers, storage facilities, materials handling systems, and other laborsaving devices.

AGR	**222**	**Farm Electrification**	**2**	**2**	**0**	**3**

Study of the basic principles and systems of farm electrification and their application to agricultural production, with emphasis on equipment for controlling the utilization of electricity.

AGR	**223**	**Livestock Production**	**3**	**0**	**0**	**3**

Study of the basic principles of livestock production, including the breeding, feeding, care, and management of farm animals.

AGR	**224**	**Agricultural Pollution Prevention and Management**	**2**	**2**	**0**	**3**

Topics include soils, control of animal wastes, pesticides, fertilizer runoff, stream sedimentation, and the use of land for disposal of municipal wastewater. Emphasis on livestock waste management. Presents state and federal regulations governing agricultural pollution.

			Class	Lab	Clinical/Shop	Credit Hours
AGR	**225**	**Agricultural Pollution Control**	**3**	**2**	**0**	**4**

Study of the relationship between agriculture and environmental pollution. Topics covered include soils, control of animal wastes and feedlot management, pesticide use and misuse, biological control of agricultural pests, fertilizer runoff and control, stream sedimentation, the use of land for disposal of municipal wastewater, and state and federal regulations related to agricultural pollution.

AGR	**227**	**Beef Production**	**3**	**0**	**0**	**3**

Study of beef production including the selection, breeding, feeding, care, and management of a beef herd. The economical aspects of various systems of beef production.

AGR	**230**	**Plant Diseases**	**3**	**0**	**0**	**3**

Study of the germ theory of disease as it applies to plants and crop production. Includes common plant diseases and symptoms and methods of prevention and control.

AGR	**235**	**Animal Diseases**	**3**	**0**	**0**	**3**

Study of the common livestock and poultry diseases and symptoms. Presents the latest advances in disease control methods with emphasis on preventive measures, including antibiotics and feed supplements.

AGR	**240**	**Insects of Agronomic Crops**	**2**	**2**	**0**	**3**

Study of common local crop insects—their economic importance, identification, life cycles, and hosts. Field trips used to determine the levels of economic damage and identify the causative insects.

AGR	**245**	**Crop Insects**	**3**	**2**	**0**	**4**

Study of common crop insects, their economic importance, identification, life cycles, and hosts. Field trips to study insect damage to crops in the area.

AGR	**247**	**Pesticides and Their Use in Home and Community**	**3**	**2**	**0**	**4**

Study of the use of pesticides including their function, ingredients, beneficial aspects, and environmental hazards, with major emphasis on safe application and handling. Biological and other alternative methods of pest control are studied.

AGR	**254**	**Plant Propagation**	**3**	**0**	**0**	**3**

Study of basic concepts and principles of sexual and asexual propagation. Techniques are learned through practical exercises conducted in laboratory sessions. Emphasis is given to those propagation methods widely utilized in the industry.

AGR	**255**	**Landscaping Principles and Practices**	**3**	**2**	**0**	**4**

A study of the basic principles of landscape design. Includes selection and placement of plants and structures, preliminary sketches, planting, fertilization, and pruning. Emphasis placed on site plans for residences.

AGR	**260**	**Residential Landscaping**	**2**	**2**	**0**	**3**

Introduces basic landscape concepts and focuses on designing landscapes as extensions of indoor activities. Special emphasis on residential site planning and design. Requires students to complete a simple landscape design on paper.

			Class	Lab	Clinical/Shop	Credit Hours
AGR	**272**	**Tobacco Production**	**3**	**0**	**0**	**3**

Review of the economic importance of tobacco in North Carolina, detailed study of certain aspects of the production and marketing of tobacco, and brief look at the processing and manufacturing phases.

AGR	**273**	**Corn, Peanut, and Soybean Production**	**3**	**0**	**0**	**3**

Production, marketing, and improvement of corn, peanuts, and soybeans are covered in this course. The latest research information on seed varieties, fertilization, disease, weed control, cultural practices, equipment, harvesting, and marketing are stressed.

AGR	**275**	**Introduction to Weed Identification and Control**	**2**	**2**	**0**	**3**

Study of the identification and control of common weeds in locally grown crops. Emphasis on weed control in corn, soybeans, and tobacco.

AGR	**278**	**Weed Identification and Control**	**3**	**2**	**0**	**4**

Study of the identification and control of annual and perennial weeds of economic inportance in North Carolina.

AGR	**279**	**Farm Forestry**	**3**	**2**	**0**	**4**

Deals with the fundamentals of forestry and farm forestry problems, including planting, thinning, protecting, harvesting, and marketing.

AGR	**280**	**Farm Forestry Management**	**2**	**2**	**0**	**3**

Study of maintaining, harvesting, and planting local forest trees with an emphasis on tree farms and the economics of tree farming.

AGR	**285**	**Introduction to Soil and Water Conservation**	**3**	**0**	**0**	**3**

Study of the physical properties of soils and the processes of erosion. Includes methods of preventing and controlling soil erosion and an understanding of the principles involved in controlling excess water.

AGR	**290**	**Soil and Water Conservation**	**3**	**2**	**0**	**4**

Introduction to soil, water, and plant conservation; the available resources to carry out soil and water conservation measures; and the relationship of specialized knowledge in agronomy, economics, engineering, soils, forestry, and recreation.

AGR	**296**	**Agricultural Programs and Agencies**	**3**	**0**	**0**	**3**

Preview of public agricultural programs and agencies that provide services for agricultural producers, including their objectives, organization, functions, and services.

AGR	**297**	**Agricultural Policy and Programs**	**3**	**0**	**0**	**3**

Concerned with the processes of agricultural policy formation in a democratic society and the role of individual and group actions in the development of public programs. Policies and programs are analyzed, including the relationship to demand, supply, income, population, the nature of agricultural production, and social welfare.

AIR CONDITIONING, HEATING, AND REFRIGERATION

			Class	Lab	Clinical/Shop	Credit Hours
AHR	**101**	**Air Conditioning and Refrigeration**	**3**	**3**	**0**	**4**

Introduction to the air conditioning and refrigeration field and to terminology relating to heating and cooling systems. Topics included are the basic laws of refrigeration, heat and heat transfer methods, servicing tools and equipment, and tubing and fittings. Shop practice will be given in operations such as tube bending, flaring, swaging, and soldering.

AHR	**106**	**Architectural Mechanical Equipment**	**3**	**3**	**0**	**4**

General study of heating, air conditioning, plumbing, and electrical equipment, materials, and symbols, and building code requirements pertaining to residential and commercial structures. Reading and interpretation of working drawings prepared by mechanical engineers and coordination of mechanical and electrical features with structural and architectural designs are included.

AHR	**201**	**Principles of Heating**	**3**	**3**	**0**	**4**

Warm air systems, heat emitter, electric heating, forced hot water and steam heating systems, including selection and sizing of equipment such as registers, grills, furnaces, boilers, radiators, baseboards, piping, and ducts. Heating layout and specifications for an existing structure or one on blueprint stage will be prepared.

AHR	**1101**	**Automotive Air Conditioning**	**3**	**0**	**6**	**5**

General introduction to the principles of refrigeration. Includes a study of the assembly of the components and connections necessary in the mechanisms, methods of operation and control, proper handling of refrigerants in charging the system, use of testing equipment in diagnosing trouble, and efficiency tests and general maintenance work.

AHR	**1102**	**Introduction to Cooling and Heating Systems**	**3**	**0**	**9**	**6**

Covers the basic principles of cooling and heating related to industrial systems. Air conditioning, refrigeration, and heating systems are studied as well as fluid flow, air distribution, and control systems. Special industrial cooling and heating systems are included.

AHR	**1107**	**Gas Laws Refrigeration**	**2**	**0**	**3**	**3**

Terminology, laws of refrigeration, absolute pressure and absolute temperature, energy conversion units; specific heat; latent heat, and sensible heat; measurement of heat in quantity and intensity; tone of refrigeration, pressure temperature relationship; transfer of heat by conduction, convection, and radiation.

AHR	**1115**	**Fundamentals of Heating**	**2**	**0**	**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, heat loss and gain, equipment selection and maintenance, solar heating, and heat distribution systems.

			Class	Lab	Clinical/Shop	Credit Hours
AHR	**1121**	**Principles of Refrigeration**	**3**	**0**	**12**	**7**

An introduction to the principles of refrigeration. Terminology, the use and care of tools and equipment, and the identification and the function of the component parts of refrigeration systems are covered. Practical work with hand tools, materials, piping, and ductwork is given to develop basic skills in the installation of refrigeration systems. Standards procedures and safety measures are stressed.

AHR	**1122**	**Domestic and Commercial Refrigeration**	**3**	**0**	**6**	**5**

Domestic refrigeration servicing of conventional, and hermetic systems. Cabinet care, controls, and systems maintenance in window air conditioning units and domestic refrigerators and freezers are stressed. Commercial refrigeration servicing of display cabinets, walk-in cooler and freezer units, and mobile refrigeration systems are studied. Manufacturer's catalogs are used in sizing and matching system components and a study of controls, refrigerants, heat reclamation maintenance, and servicing methods is made. The American Standard Safety Code for Refrigeration is studied and its principles practiced.

AHR	**1123**	**Principles of Air Conditioning**	**3**	**0**	**12**	**7**

Prerequisite: AHR 1122
Includes a study of the selection of various heating, cooling, and ventilation systems and the investigation and control of factors affecting air cleaning in air movement, temperature, and humidity. Psychometric charts are used in determining optimim temperature and humidity control. Commercial air conditioning equipment is assembled and tested. Practical sizing and balancing of duct work is performed as needed.

AHR	**1124**	**Air Conditioning, Heating and Refrigeration Servicing**	**3**	**0**	**6**	**5**

Prerequisite: AHR 1123
Emphasis is placed on the maintenance and servicing of equipment used in the cleaning, changing, humidification and temperature control of air in an air conditioned space. Shop work involves locating and correcting equipment failures and controlling, testing, and adjusting heating and cooling equipment to maximize energy conservation.

AHR	**1126**	**All Year Comfort Systems**	**3**	**0**	**6**	**5**

Prerequisites: AHR 1123, AHR 1128
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 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**	**3**	**0**	**6**	**5**

Prerequisite: ELC 1102, AHR 1122
Types of automatic controls and their function in heating and cooling systems. Included in the course will be electric, electronic, mechanical, and pneumatic controls for domestic and commercial heating and cooling along with zone controls, unit heater and ventilator controls, commercial fan system controls, commercial refrigeration controls, and radiant panel controls.

BANKING AND FINANCE

			Class	Lab	Clinical/Shop	Credit Hours
AIB	**111**	**Business Administration**	**4**	**0**	**0**	**4**

Emphasis placed on the managerial responsibility of coordinating carefully the many facets of a business enterprise. Also stresses the background of administration, financial management, production, labor-management relations, marketing, coordination and control, and public relations problems.

AIB	**120**	**Accounting I**	**4**	**0**	**0**	**4**

Comprehensive treatment of all up-to-date principles giving the student ample opportunity through examples, illustrations, and correlated activities to learn how the principles are applied. End-of-unit summaries have special sections for both principles and managerial implications.

AIB	**121**	**Accounting II**	**4**	**0**	**0**	**4**

Prerequisite: AIB 120
Content of this course selected with two major objectives in mind: immediate on-the-job usefulness and contribution to the student's future growth in the banking field. Consists of a detailed study of balance sheet items, covers manufacturing accounting and production costing, and includes an appropriate study of cost analysis for managerial decisions.

AIB	**122**	**Fundamentals of Bank Data Processing**	**4**	**0**	**0**	**4**

This course is designed for non-data processing personnel at any level who would like a general understanding of data processing principles and their banking applications. The course presents the concepts of data processing and the basic functions of computers using analogies and illustrations from the banking industry. It discusses present and future bank applications of data processing, including MICR and EFTS.

AIB	**123**	**Financing Business Enterprise**	**4**	**0**	**0**	**4**

Stress is placed on the difference between lending and investing, and on the fact that investing in a corporation and financing a corporation are different aspects of the same subject. Material is presented from the viewpoint of the corporate treasurer who must safeguard the financial future of the corporation.

AIB	**202**	**Principles of Bank Operation**	**4**	**0**	**0**	**4**

Fundamentals of bank functions in a descriptive fashion so that the beginning banker may view the profession in a broad (and operational) perspective. The descriptive orientation is intentional. Banking is increasingly dependent upon personnel who have the broad perspective so necessary for career advancement.

AIB	**203**	**Bank Investments**	**4**	**0**	**0**	**4**

Because the bank's needs for primary reserves and loanable funds limit the funds available for investment, this course describes the nature of such funds and how their uses are determined. It also analyzes the primary and secondary reserve needs of commercial banks, the sources of reserves, and their random and cyclical fluctuations, showing the influence of these factors on investment policy. This analysis is followed by a study of yield changes as they affect a bank's long-term holdings.

			Class	Lab	Clinical/Shop	Credit Hours
AIB	**204**	**Bank Management by Objectives**	**0**	**2**	**0**	**1**

Middle management seminar designed to assist bank officers in learning how to translate bank problems into realistic goals for the individual and the bank, through the management-by-objectives system. Cases and outside readings are used in this seminar. It can be presented as a brief, intense workshop or an eight-session seminar.

AIB	**205**	**Bank Management**	**4**	**0**	**0**	**4**

Philosophy and practice of management. The study and application of the principles outlined provide new and experienced bankers with a working knowledge of bank management.

AIB	**206**	**Bank Letters and Reports**	**4**	**0**	**0**	**4**

Designed for those bank officers, supervisors, and employees who dictate or review correspondence. Since bank letters are actually public relations documents, all persons should be familiar not only with the mechanical forms of bank letters, but also with the psychological principles that help the letter writer achieve best results. Reviews letter forms, emphasizes fundamental principles underlying modern correspondence, and examines different kinds of bank letters.

AIB	**207**	**International Banking**	**4**	**0**	**0**	**4**

Introduction to a vast field for those working in international departments, as well as for those involved in the domestic activities of their banks. Presents the basic framework and fundamentals of international banking; how money is transferred from one country to another, how trade is financed, what the international agencies are, and how they supplement the work of commercial banks, and how money is changed from one currency to another.

AIB	**208**	**Conference Planning and Leadership**	**0**	**2**	**0**	**1**

Centered on a specific phase of the problem of human understanding. The course is concerned with an important responsibility of management: to communicate and to coordinate ideas in the most effective way possible. Consideration is given to the dynamics of human interaction in groups convened to solve problems and make decisions. The essentials of parliamentary procedure are also stressed, thus presenting an effective technique for achieving consensus and formalizing and recording the decision-making process.

AIB	**209**	**Installment Credit**	**4**	**0**	**0**	**4**

Techniques of installment lending presented concisely. Emphasis is placed on establishing the credit, obtaining and checking information, servicing the loan, and collecting the amounts due. Each phase of a bank's installment credit operation should be carefully scrutinized to be certain that the most efficient methods are employed, for only through an efficient operation can a bank maximize its profits on this particular kind of credit. Other topics discussed are inventory financing, special loan programs, business development and advertising, and the public relations aspect of installment lending.

AIB	**210**	**Money and Banking**	**4**	**0**	**0**	**4**

Stresses the practical aspects of money and banking and emphasizes the basic monetary theory needed by the banking student to apply his knowledge to his particular job. Historical treatment kept to a minimum. Emphasis is also placed on such problems as economic stabilization, types of spending, the role of gold, limitations of central bank

			Class	Lab	Clinical/Shop	Credit Hours

control, government fiscal policy, balance of payments, and foreign exchange, showing their repercussions on the banking industry in affecting yield curves and structuring of portfolios.

AIB 212 Planning Management Development 0 2 0 1

Middle management seminar designed to assist bank officers who are responsible for the planning, recruiting, and development of bank management personnel. Cases and outside readings are used. It can be presented as a brief, intense workshop or as a twelve-session seminar.

AIB 213 Trust Functions 4 0 0 4

Presents a complete picture of the services rendered by institutions engaged in trust business. Providing an introduction to the services and duties involved in trust operations, the course is intended for all bankers, not just those who are engaged in trust business. It endeavors to keep clear the distinction between business and legal aspects of trust functions.

AIB 214 Effective Speaking 4 0 0 4

Students given an opportunity to study all phases of speech situations. Directed primarily to the student seeking to give an account on the public platform. Other speech situations are not neglected. Having studied the basic principles involved in organizing and presenting a speech, students are given suggestions to aid in developing speaking ability in situations such as conferences, panel discussions, radio, and television.

AIB 219 Credit Administration 4 0 0 4

Directed toward the executive level, concerned partly with a statement and a discussion of factors influencing and determining loan policy. Methods of credit investigation and analysis, credit techniques, specific credit problems, and regular as well as unusual types of loans are discussed.

AIB 230 Introduction to Commercial Lending 4 0 0 4

Explores various aspects of a bank's commercial loan department including cost analysis, regulatory and legal environment, and business development.

AIB 231 Savings and Time Deposit Banking 4 0 0 4

Reflects recognition of the fact that a knowledge of the historical development of savings institutions and an awareness of the basic economic function of the savings process are necessary to an understanding of the current operations and policies of these institutions. Begins with a review of the economics of the savings process in order to clarify important differences between financial savings by individuals or organizations and real savings that appear as capital formation. Different types of financial savings are reviewed in order to describe the system of financial flows of income to capital investment.

AIB 232 Agricultural Finance 4 0 0 4

Reflecting the rapid growth of the off-farm agribusiness sectors (the suppliers of farm inputs), this course emphasizes general principles associated with the evaluation of management and the use of capital rather than the examination of land and labor resources which are more closely aligned with agricultural production. An understanding of agricultural finance should help the banker in satisfying the credit needs of modern agriculture.

			Class	Lab	Clinical/Shop	Credit Hours
AIB	**233**	**Analyzing Financial Statements**	**4**	**0**	**0**	**4**

Characteristics of financial statements and financial statements analysis. The first section serves as a useful review of basic accounting principles for those students who have studied accounting. For those who have not, this section provides the minimum accounting background necessary for profitable study of financial statement analysis.

AIB	**234**	**Loss Prevention**	**0**	**2**	**0**	**1**

This seminar focuses on check cashing, check swindles, bank holdups, and security procedures.

AIB	**235**	**Loan and Discount**	**3**	**0**	**0**	**3**

This seminar teaches bank employees the essential facts about promissory notes, including calculating interest and discounting commercial paper; guarantees; general collateral agreements; examining and processing documents accompanying notes secured by stocks, bonds, and savings account passbooks; and the concepts of attachment, perfection, priority, default, and foreclosure.

AIB	**236**	**Home Mortgage Lending**	**4**	**0**	**0**	**4**

Approaches the subject from the viewpoint of the mortgage loan officer who seeks to develop a sound mortgage portfolio. A picture of the mortgage market is presented first; then the acquisition of a mortgage portfolio, mortgage plans and procedures, mortgage loan processing and servicing; and finally the obligations of the mortgage loan officer in overall portfolio management.

AIB	**237**	**Selling Bank Services**	**0**	**2**	**0**	**1**

Teaches tellers and new-accounts personnel how to recognize and meet bank customer needs; checking accounts, savings services, loans to individuals, safe deposit boxes, travelers' checks, and cross selling.

AIB	**239**	**Bank Public Relations and Marketing**	**4**	**0**	**0**	**4**

Discusses the basis of public relations, both internal and external, and seeks to explain the why, the what, and some of the how of public relations and marketing. Intended as an overview for all bankers in terms of what everyone in banking should know about the essentials of bank public relations and marketing.

AIB	**259**	**Law and Banking**	**4**	**0**	**0**	**4**

Introduction to basic U.S. law, presenting the rules of law which underlie banking. Topics include jurisprudence, the court system and civil procedure, contracts, quasi-contracts, property, torts and crimes, agencies, partnerships, corporations, sales of personal property, commercial paper, bank deposits and collection, documents of titles, and secured transactions. Emphasis is on the Uniform Commercial Code.

AIB	**272**	**Supervision and Personnel Administration**	**4**	**0**	**0**	**4**

Designed to aid first-line supervisors in making a smooth transition from expert in a particular task to the role of a supervisor who must produce results through the efforts of other people. In this role, the first-line supervisor must reflect management attitudes and carry out management policies while at the same time inspiring his group to achieve friendly cooperative and maximum production.

			Class	Lab	Clinical/Shop	Credit Hours
AIB	**299**	**Supervisory Training**	**4**	**0**	**0**	**4**

Explores role of supervisor with emphasis on management and leadership skills pertinent in bank operation.

ANTHROPOLOGY

ANT	**150**	**Introduction to Anthropology**	**5**	**0**	**0**	**5**

Prerequisite: Specified score on reading placement test or ENG 094
General introduction to anthropology, the science of man as the culture-bearing animal. Topics considered: physical evolution of mankind and biological variations within and between modern human populations, prehistoric and historic developments of culture, cultural dynamics viewed analytically and comparatively.

ANT	**160**	**Societies Around the World**	**5**	**0**	**0**	**5**

Prerequisite: Specified score on reading placement test or ENG 094
Ethnographic survey of world culture areas showing similarities and variations in cultural patterns.

ARCHITECTURE

ARC	**106**	**Architectural Drafting**	**2**	**6**	**0**	**4**

Designed to provide fundamental knowledge of the principles of drafting. Basic skills and techniques of drafting included are the use of drafting equipment, lettering, pictorial sketching, geometric construction, and orthographic instrument drawing of principal views. Projection problems dealing with principles of isometric, oblique, and perspective drawings are included. Applications of descriptive geometry are used in visualization and analytical solutions of the drafting problems involving auxiliary views, intersections, and developments.

ARC	**107**	**Architectural Drafting**	**2**	**6**	**0**	**4**

Prerequisite: ARC 106
Includes the development of techniques in architectural lettering, symbols, dimensioning, freehand and instrument drafting, and the development of a complete set of working drawings for a residence, with construction details and the use of appropriate material symbols and connections. Sections, scale details, and full-size details will be prepared from preliminary sketches.

ARC	**108**	**Architectural Drafting**	**0**	**9**	**0**	**3**

Prerequisites: ARC 107, AHR 106, CIV 105
An indepth approach to the study of architectural drafting. Development of techniques in architectural lettering, dimensioning, freehand sketching and instrument drawing, and drawings of construction details, using appropriate material symbols will be included. A continuation of ARC 107, this course includes an introduction to commercial working drawings. Working drawings, including plans, elevations, sketches, scale details, and wall section details are prepared from preliminary sketches. Introduces computer drafting.

			Class	Lab	Clinical/ Shop	Credit Hours
ARC	**201**	**Architectural Design I**	**3**	**9**	**0**	**6**

Prerequisite: ARC 107
Basic design principles; development of design as it relates to the details, structure, and aesthetic functions of buildings; design presentations and architectural models; and group and individual problems in design. Develops computer drafting in three dimensions.

ARC	**202**	**Environmental Design**	**2**	**3**	**0**	**3**

Prerequisite: ARC 107
Design principles of regional and city planning, research reports, maps, and problems in environmental design. Problem solving using computer data.

ARC	**220**	**Architectural Drafting**	**2**	**9**	**0**	**5**

Prerequisite: ARC 108
Includes commercial working drawings; materials used in commercial buildings; systems of construction; and drawing of structural plans and details as prepared for building construction, including steel, concrete, and timber structural components. Appropriate details and drawings necessary for construction are studied. Reference materials are used to provide the draftsman with skills and knowledge in locating data and in using handbooks.

ARC	**221**	**Architectural Drafting**	**2**	**9**	**0**	**5**

Prerequisite: ARC 220
Individual or group projects which involve the coordination of working drawings for commercial work. Consideration is given to coordination of mechanical and electrical features with structural and architectural components. A two-week problem in model building or architectural presentation work is included.

ARC	**222**	**Architectural Drafting**	**2**	**9**	**0**	**5**

Prerequisites: ARC 221, CIV 101, DFT 235
Preparation of a complete set of working drawings for the architectural structure, coordinating floor plans, elevations, wall sections, and details. Site and landscaping plans are studied and drawn. Final assembly of the complete document for construction purposes made. Plans include environmental and energy considerations.

ARC	**233**	**Office Practice Seminar**	**2**	**0**	**0**	**2**

Study of the professional relationship of the architectural firm to clients, contractors, suppliers, consultants, and other architects. Ethics of the profession as applied to the draftsman's role in the architectural firm are emphasized as well as the legal aspects of architectural practice.

ART

ART	**160**	**Art Appreciation**	**3**	**0**	**0**	**3**

Exploratory study of the visual experience; intended to enhance the student's understanding and enjoyment of art.

ART	**170**	**Color and Design**	**5**	**0**	**0**	**5**

Study of principles common to all visual work emphasizing color, line, shape, space, volume and texture and their psychological and physical effects on the viewer.

BIOLOGY

			Class	Lab	Clinical/Shop	Credit Hours
BIO	**100**	**Introduction to Human Biology**	**4**	**2**	**0**	**5**

Introduces the normal structure and function of the human body. Presents the cell as the basic building block of the human organism and introduces some basic concepts in chemistry to provide a basis for understanding the body functions. Includes medical terminology appropriate to each body system used in describing various body parts, medical procedures, and disease states. Ways of detecting disease states are considered. The laboratory augments the study of the various body systems and teaches procedures for assessing vital signs and responding to emergency situations. Designed for students in the medical secretary curriculum.

BIO	**101**	**Basic Life Sciences**	**5**	**0**	**0**	**5**

Foundation of facts and principles in the normal structure and related functioning of the following body systems: skeletal, muscular, digestive, circulatory, respiratory, urinary, reproductive, endocrine, integumentary, nervous, and special sense organs. Presents principles and concepts of physiology and immunology. Presentation of the normal body as a basis for understanding variations from the normal.

BIO	**107**	**Anatomy and Physiology I**	**4**	**2**	**0**	**5**

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 anatomical and physiological aspects of the integumentary, skeletal, muscular, respiratory, cardiovascular, and lymphatic systems. The laboratory portion includes relevant experiments to augment the student's learning of body structure and functions.

BIO	**108**	**Anatomy and Physiology II**	**4**	**2**	**0**	**5**

Prerequisite: BIO 107
A continuation of the study of the structure and normal function of man as a living organism. Included are the basic anatomical and physiological aspects of the nervous, endocrine, urinary, digestive, and reproductive systems, the special senses, and fluid and electrolyte balance. The laboratory portion includes relevant experiments to augment the student's learning of body structure and function.

BIO	**150**	**Human Anatomy and Physiology I**	**3**	**2**	**0**	**4**

Prerequisite: A minimum score of 75 on the science placement exam or BIO 101 (Minimum grade of "C")
A study of the microscopic and macroscopic structure of the human body. Includes a study of normal physiology as a basis for understanding pathophysiological states. Covers cells, tissues, body organization, and integumentary, cardiovascular, respiratory, and digestive systems.

BIO	**151**	**Human Anatomy and Physiology II**	**3**	**2**	**0**	**4**

Prerequisite: BIO 150 (minimum grade of "C")
Continues the study of the structure and function of the human body including a comprehensive study of normal human nutrition. Covers the nervous system, endocrine system, and special senses.

			Class	Lab	Clinical/Shop	Credit Hours
BIO	**152**	**Human Anatomy and Physiology III**	**3**	**2**	**0**	**4**

Prerequisite: BIO 151 (minimum grade of "C")
Continues the study of the structure and function of the human body. Covers the muscular, skeletal, reproductive, and urinary systems along with fluid and electrolyte balance.

BIO	**206**	**Microbiology**	**3**	**2**	**0**	**4**

Prerequisite: BIO 108 or BIO 150 (minimum grade of "C")
A study of basic microbiology and its relationship to health and disease. Includes basic laboratory practice; microbial physiology; environmental, medical, and applied microbiology.

BIO	**207**	**Advanced Microbiology**	**2**	**2**	**0**	**3**

Prerequisite: BIO 206
Indepth study of human pathogens and their relationship to the disease process including immunological and epidemiological considerations.

BIO	**210**	**Radiation Biology**	**4**	**0**	**0**	**4**

Prerequisite: RDT 205
Study of radiobiology with emphasis on the effects of ionizing radiation in the human body. The use of radiation and radioactive materials in nuclear medicine and radiation therapy considered along with protective measures.

BIO	**250**	**General Biology I**	**3**	**2**	**0**	**4**

Prerequisite: Specified score on reading placement test
Introduction to basic biological concepts and principles; a study of the chemical and physical properties of the living cell; cell structure-function relationship; and cell reproduction and genetics.

BIO	**251**	**General Biology II**	**3**	**2**	**0**	**4**

Prerequisite: Specified score on reading placement test
A survey of the five kingdoms with emphasis on structure-function relationships and on phylogenetic complexity. In addition, vertebrate nutrition and digestion, gas exchange, blood and transport systems, and animal excretion will be studied.

BIO	**252**	**General Biology III**	**3**	**2**	**0**	**4**

Prerequisite: BIO 251
A continuation of the study of vertebrate systems including skeletal, muscular, reproductive, endocrine, and temperature regulating systems. The structure, growth, transport system, and reproductive sytem of vascular plants will be studied. Ecosystems, ecology, and evolution are also considered.

BIO	**1104**	**Introduction to Microbiology**	**2**	**2**	**0**	**3**

Presentation of the basic principles of microbiology to aid students in understanding the relationship of microorganisms with the maintenance of health and the cause, control, and prevention of disease.

BUSINESS

			Class	Lab	Clinical/Shop	Credit Hours
BUS	**100**	**Business Education Orientation**	**1**	**0**	**0**	**1**

Orientation to the business community; emphasis on employment opportunities in the secretarial and clerical fields, entry level job requirements, services of local employment agencies and personnel departments, and procedures to follow in obtaining employment. Activities will include guest speakers from the business community and the business education department.

BUS	**102**	**Beginning Typewriting**	**2**	**3**	**0**	**3**

Emphasis on study of the keyboard, mechanics of the typewriter necessary for the acquisition of elementary typewriting skills, and development of speed and accuracy.

BUS	**103**	**Intermediate Typewriting**	**2**	**3**	**0**	**3**

Prerequisite: BUS 102 or equivalent
Development of speed and accuracy with further mastery of correct typewriting techniques as applied to tabulation, manuscript, correspondence, and business forms.

BUS	**104**	**Advanced Typewriting**	**2**	**3**	**0**	**3**

Prerequisite: BUS 103
Emphasis on production typing problems and speed building. Attention to the development of the student's ability to function as a typist, producing mailable copy.

BUS	**105A**	**Introduction to Shorthand**	**2**	**3**	**0**	**3**

Beginning course in theory and practice of reading and writing Gregg shorthand.

BUS	**105B**	**Introduction to Shorthand**	**2**	**3**	**0**	**3**

Prerequisite: BUS 105A or equivalent
Sequel to BUS 105A; emphasis on phonetics, penmanship, word families, brief forms, and phrases.

BUS	**106**	**Beginning Shorthand**	**5**	**0**	**0**	**5**

Prerequisite: ENG 101S (minimum grade of "B")
Corequisites: BUS 106L, 113
Beginning course in theory and practice of reading and writing Gregg shorthand. Emphasis on phonetics, penmanship, word families, brief forms, and phrases.

BUS	**106L**	**Beginning Shorthand Lab**	**0**	**5**	**0**	**0**

Corequisite: BUS 106
Dictation practice in shorthand lab to accompany shorthand class.

BUS	**107**	**Intermediate Shorthand**	**5**	**0**	**0**	**5**

Prerequisite: BUS 106
Corequisites: BUS 107L, 114
Continued study of theory with greater emphasis on dictation and elementary transcription.

BUS	**107L**	**Intermediate Shorthand Lab**	**0**	**5**	**0**	**0**

Corequisite: BUS 107
Dictation practice in shorthand lab to accompany shorthand class.

			Class	Lab	Clinical/Shop	Credit Hours
BUS	**108**	**Advanced Shorthand**	**5**	**0**	**0**	**5**

Prerequisite: BUS 107
Corequisite: BUS 108L
Review of shorthand principles, daily speed practice, and development of greater dictation and transcription speed.

BUS	**108L**	**Advanced Shorthand Lab**	**0**	**5**	**0**	**0**

Corequisite: BUS 108
Dictation practice in shorthand lab to accompany shorthand class.

BUS	**110**	**Electronic Calculator**	**2**	**2**	**0**	**3**

Prerequisite: MAT 110 or MAT 100
Training in techniques, processes, operations, and applications of electronic calculator.

BUS	**112**	**Filing**	**3**	**0**	**0**	**3**

Fundamentals of indexing and filing, combining theory and practice by the use of miniature letters, filing boxes, and guides. Students will also become familiar with modern filing equipment.

BUS	**113**	**Machine Transcription I**	**5**	**0**	**0**	**5**

Prerequisites: BUS 103; ENG 101S (minimum grade of "B")
Introductory course in the correct techniques of operating the dictating and transcribing units, plus fundamentals of transcription such as spelling, punctuation, grammar, letter placement, and the use of reference materials.

BUS	**114**	**Machine Transcription II**	**5**	**0**	**0**	**5**

Prerequisite: BUS 113 (minimum grade of "C")
Continuation of BUS 113 with additional emphasis on producing mailable business correspondence.

BUS	**115M**	**Medical Ethics and Law**	**3**	**0**	**0**	**3**

Study of the principles of office conduct, ethical responsibility of the office staff with regard to information acquired, and obligations and responsibilities of the medical office worker or transcriber. Laws governing medical practice are also included.

BUS	**117**	**Electronic Calculator: Secretary**	**3**	**2**	**0**	**4**

Prerequisite: MAT 110
Problem solving activities for efficient machine operation, verifying techniques, machine programming, and concepts of business mathematics widely used in both business and personal situations.

BUS	**123**	**Business Finance**	**3**	**0**	**0**	**3**

Prerequisite: ACT 152
Financing of business units, as individuals, partnerships, corporations, and trusts. A detailed study of short-term, long-term, and consumer financing is included.

BUS	**134**	**Personal Grooming**	**3**	**0**	**0**	**3**

Designed to help students recognize the importance of physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on poise, grooming, and methods of personal improvement.

			Class	Lab	Clinical/Shop	Credit Hours
BUS	**152**	**Electronic Printing Calculator**	**0**	**2**	**0**	**1**

Training in the techniques, processes, operations, and applications of the electronic printing calculator. Offered only for students not taking BUS 110 or BUS 117 for graduation or elective.

BUS	**155**	**Cash Register: Electronic**	**0**	**2**	**0**	**1**

Designed to acquaint students with the fundamentals of operating the SWEDA 2650 Electronic Cash Register. Offered only for students not taking BUS 231 for graduation or elective.

BUS	**165**	**Introduction to Business**	**5**	**0**	**0**	**5**

Survey of the business world with particular attention to the structure of various types of business organizations, methods of financing, internal organization, management, functions of business and relationships in society, and current problems.

BUS	**166**	**Business Law I**	**3**	**0**	**0**	**3**

Study of the law as it applies to ordinary business transactions, including the law of contracts, agency and employment, and commercial paper. Exposure to legal problems frequently arising in business and social life.

BUS	**167**	**Business Law II**	**3**	**0**	**0**	**3**

Continuation of BUS 166. Includes the law of personal property and bailments, sales, insurance, and torts.

BUS	**181M**	**Administrative Medical Office Assistant Procedures**	**3**	**0**	**0**	**3**

Provides adequate training for the assistant to be efficient in the medical office. Emphasis is placed on medical ethics and law; receptionist's duties; telephone techniques; mail processing procedures; records management billing, collecting, and banking procedures; and accident insurance.

BUS	**182M**	**Clinical Assistant Procedures**	**3**	**0**	**0**	**3**

Continuation of medical office training covering a vast area of clinical techniques, such as microbiology, pharmacology, diagnostic laboratory procedures, first aid and medical emergencies, and administration of medications. Further study in assisting with physical therapy, minor surgery, etc.

BUS	**183L**	**Legal Typing Practice**	**3**	**0**	**0**	**3**

Prerequisite: BUS 103
Training in the functions, operations, and duties performed in a legal office. The course includes typing legal documents, reviewing general information about tasks assigned, following established procedures, performing general office routine, and learning the responsibilities of a legal secretary.

BUS	**183M**	**Medical Typing Practice**	**3**	**0**	**0**	**3**

Prerequisite: BUS 103
Training in the functions, operations, and duties performed in a medical office. Technical material acquaints the prospective medical assistant with commonly used medical vocabulary and procedures.

			Class	Lab	Clinical/Shop	Credit Hours
BUS	**184M**	**Terminology and Vocabulary: Medical I**	**3**	**0**	**0**	**3**

Prerequisite: BIO 100
Introduction to the study of the structure of medical words and terms. Emphasis is placed on spelling and defining commonly-used prefixes, suffixes, root words, and their combining forms.

BUS	**185M**	**Terminology and Vocabulary: Medical II**	**3**	**0**	**0**	**3**

Prerequisite: BUS 184M
Continuation of the study of medical words and terms with emphasis on words as they pertain to anatomy, physiology, diseases, operations, tumors, drugs, and related descriptive terms.

BUS	**186M**	**Terminology and Vocabulary: Medical III**	**3**	**0**	**0**	**3**

Prerequisite: BUS 185M
Continuation of BUS 185M with additional study emphasizing the various systems of the body.

BUS	**188**	**Medical Transcription I**	**4**	**2**	**0**	**5**

Prerequisites: BUS 104, 113, 186M
Machine transcription from cassette recordings produced by the American Medical Record Association of materials routinely transcribed in a medical office. Units include history, physical, radiology, operation, pathology, and autopsy reports and discharge summaries.

BUS	**189**	**Medical Transcription II**	**4**	**2**	**0**	**5**

Prerequisite: BUS 188
Continuation of BUS 188 with units containing work in the following areas: psychiatry, pediatrics, obstetrics and gynecology, corrective surgery, and the endocrine, respiratory, genitourinary, gastrointestinal, cardiovascular, and neurological systems.

BUS	**191**	**Electronic Keyboarding**	**2**	**3**	**0**	**3**

Prerequisite: ENG 101S (minimum grade of "B") or permission of instructor
Corequisite: BUS 104
Designed to give the student intensive training on the IBM Electronic 75/85 Typewriters through programmed instruction.

BUS	**192**	**Word Processing Applications I**	**2**	**3**	**0**	**3**

Prerequisite: BUS 104 and permission from instructor
Designed to give the student a basic understanding of the operation and application of the IBM Displaywriter System through programmed instruction and diskettes.

BUS	**193**	**Word Processing Applications II**	**2**	**3**	**0**	**3**

Prerequisite: BUS 192 and permission from instructor
Designed to explore advanced applications using the IBM Displaywriter System including advanced tables, math features, simple and advanced text tables, and advanced procedures for organizing one's work station.

			Class	Lab	Clinical/Shop	Credit Hours
BUS	**194**	**Word Processing: Reportpack**	**2**	**3**	**0**	**3**

Prerequisite: BUS 193 and permission from instructor
Covers electronic filing on the IBM Displaywriter System including storing text and data on diskettes in an organized fashion, retrieving text and data from a file, creating repetitive letters using the merge feature, creating mailing lists from data stored in the file, and creating various reports from stored data.

BUS	**205**	**Production Typewriting**	**2**	**3**	**0**	**3**

Prerequisite: BUS 104
Development of individual production rates. Techniques needed in planning and in typing projects that closely approximate the work appropriate to the field of study.

BUS	**213**	**Machine Transcription III**	**5**	**0**	**0**	**5**

Prerequisites: BUS 114 (minimum grade of "C")
Emphasis on refinement of machine transcription skills and developing proficiency in producing mailable copy.

BUS	**214A**	**Clinical Experience**	**0**	**18**	**0**	**6**

Prerequisites: BUS 189, 216
Corequisite: BUS 214B
Introduction through on-the-job experience to practice of medical transcription, using tapes of actual medical records in a physician's office, clinic, or hospital record room.

BUS	**214B**	**Medical Transcriber Seminar**	**2**	**0**	**0**	**2**

Corequisite: BUS 214A
Study of personal responsibilities as a medical transcriber, including employee-employer relations and evaluation of clinical experience. Medical transcription experienced by the members of the class in the various medical specialties will also be reviewed.

BUS	**215**	**Office Application**	**0**	**10**	**0**	**1**

Prerequisites: BUS 104, 117
Emphasis on work experience and an opportunity for the practical application of the skills and knowledge previously learned. Student assigned to a commercial firm for general office work as required by the cooperating firm.

BUS	**216**	**Office Procedures**	**5**	**0**	**0**	**5**

Prerequisites: BUS 113 (minimum grade of "C"), ENG 206
Designed to acquaint students with the responsibilities encountered by a general office worker during the work day, including receptionist duties, handling the mail, telephone techniques, handling the multi-office switchboard, travel information, telegrams, office records, purchasing supplies, office organization, and scheduling appointments.

BUS	**219**	**Credit Procedures and Problems**	**3**	**0**	**0**	**3**

Prerequisite: ACT 150
Principles and practices in the extension of credit and the collection of accounts. Federal and state law pertaining to credit extension and to collection are included.

			Class	Lab	Clinical/Shop	Credit Hours
BUS	**222**	**Intermediate Accounting**	**5**	**0**	**0**	**5**

Prerequisite: ACT 152
Intensive review of the accounting cycle, including study of financial statements and closing procedures. Includes a more detailed study of current assets including cash, temporary investments, receivables, and inventories.

BUS	**223**	**Intermediate Accounting**	**5**	**0**	**0**	**5**

Prerequisite: BUS 222
Advanced study of inventories, investments, and plant and intangible assets. Both current and long-term liabilities re-examined. Procedural as well as theoretical studies are made.

BUS	**224**	**Intermediate Accounting**	**5**	**0**	**0**	**5**

Prerequisite: BUS 223
Study of stockholder's equity accounts. Managerial information provided by earnings and equity per share, statement of changes in financial position, and financial statement analysis.

BUS	**225**	**Cost Accounting**	**3**	**2**	**0**	**4**

Prerequisite: ACT 152
Nature and purposes of cost accounting. Includes accounting for direct labor, materials, and factory overhead; job cost and standard cost principles and procedures; selling and distribution costs; budgets; and executive use of cost figures.

BUS	**226**	**Payroll Accounting**	**3**	**2**	**0**	**4**

Prerequisite: ACT 151
An intensive study of federal and state income tax requirements. Preparation of forms for social security and income withholding payments and unemployment taxes. Comprehensive payroll problem includes accounting for payroll and preparation of tax forms.

BUS	**227**	**Advanced Accounting**	**5**	**0**	**0**	**5**

Prerequisite: BUS 224
Study of Professional Code of Ethics and APB Opinions. Application of accounting theory and principle through case studies.

BUS	**229**	**Taxes**	**3**	**2**	**0**	**4**

Prerequisite: ACT 152
Federal and state income tax preparation. Includes preparation of income tax forms for sole proprietorship, recording partnership income on the individual return, calculation of capital gains, accounting for rental property, and calculation of self-employment taxes.

BUS	**231**	**Sales and Inventory Procedures**	**3**	**0**	**0**	**3**

Emphasis on selling procedures, customer relations, marketing and displaying merchandise, use of the cash register, credit card sales, and inventory record-keeping as required for a general sales clerk.

BUS	**232**	**Sales Development**	**3**	**0**	**0**	**3**

Study of the fundamentals of retail, wholesale, and specialty selling as applied to the sales demonstration.

			Class	Lab	Clinical/Shop	Credit Hours
BUS	**233**	**Personnel Management**	**3**	**0**	**0**	**3**

Study of the personnel department; policies of recruitment, selection, placement, training, and promotion; and employee health and safety.

BUS	**235**	**Business Management**	**3**	**0**	**0**	**3**

Study of the application of planning, staffing, controlling, directing, and financing to decision making.

BUS	**239**	**Marketing**	**5**	**0**	**0**	**5**

Survey of the marketing process with a detailed study of functions, policies, and institutions.

BUS	**243**	**Advertising**	**3**	**2**	**0**	**4**

Study of advertising appeals, product and market research, media selection, and testing the effectiveness of mass communications.

BUS	**247**	**Business Insurance**	**3**	**0**	**0**	**3**

Presentation of the basic principles of various types of insurance.

BUS	**248**	**Medical Insurance**	**3**	**0**	**0**	**3**

Practical approach to smooth operation and efficiency in the handling of insurance claims in the medical office. Offers the opportunity to work with the major insurances including BC-BS, Medicare, CHAMPUS, workers' compensation, and others.

BUS	**259**	**Office Simulation**	**2**	**3**	**0**	**3**

Prerequisite: BUS 216

Culmination of typing skills development involving general clerical duties such as typing invoices, insurance forms, statements of account, form letters, reports, payrolls, purchase orders, and monthly reports. A simulation is used that gives realistic patterns of interaction with coworkers to enable students to learn firsthand the personal traits and human relations skills needed for successful employment.

BUS	**268**	**Auditing Theory**	**3**	**0**	**0**	**3**

Prerequisite: ACT 152

Study of the audit profession. Stresses professional responsibilities and ethics. An introduction to the audit process, including an overview, methods of obtaining audit evidence, and audit program planning.

BUS	**269**	**Auditing**	**3**	**0**	**0**	**3**

Prerequisite: BUS 268

More advanced study of auditing techniques, including statistical sampling, tests of transactions and balances, and evaluation of internal control. The reporting function of auditing is closely examined.

BUS	**271**	**Office Management**	**3**	**0**	**0**	**3**

Study of basic management principles as applied to the office as a business service center.

BUS	**272**	**Principles of Supervision**	**3**	**0**	**0**	**3**

Study of the responsibilities and duties of a supervisor as related to his supervisors, subordinates, and associates.

			Class	Lab	Clinical/Shop	Credit Hours
BUS	**290A**	**Special Problems in Business**	**1**	**0**	**0**	**1**
BUS	**290B**	**Special Problems in Business**	**1**	**0**	**0**	**1**
BUS	**290C**	**Special Problems in Business**	**1**	**0**	**0**	**1**

Designed for students who want to expand their knowledge and ability in certain areas of business management, accounting, or secretarial skills. The course is structured to meet the specific objectives of each student and is supervised by an appointed member of the business education faculty.

BUS 1103 Small Business Operations 3 0 0 3

Introduction to the business world; includes problems of small business operations, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations.

BUS 1105 Industrial Organizations 3 0 0 3

Methods, techniques, and practices of modern management in planning, organizing and controlling operations of a manufacturing concern. Introduction to the competitive system and the factors constituting product costs.

CARPENTRY

CAR 1101 Carpentry 3 0 15 8

Brief history of carpentry and present trends of the construction industry. Involves operation, care, and safe use of carpenters' handtools and power tools in cutting, shaping, and joining construction materials used by the carpenter. Major topics of study include theoretical and practical applications involving materials and methods of construction, building layout, preparation of site, footings and foundation wall construction, and form construction and erection.

CAR 1102 Carpentry: Millwork and Cabinetmaking 3 0 15 8

Prerequisites: CAR 1101, DFT 1110
Cabinetmaking and millwork as performed by the general carpenter for building construction. Use of shop tools and equipment emphasized in learning methods of construction of millwork and cabinetry. Practical applications include measuring, layout, and construction of base and wall cabinets, built-in desks, door and window frames, stairs, and interior and exterior cornices and trim. Materials and finishes are also studied.

CAR 1103 Carpentry: Framing 3 0 15 8

Prerequisites: CAR 1101, DFT 1111
Principles and practices of frame construction beginning with the foundation sills and including floor joists, subfloors, wall studs, ceiling joists, rafters, bridging, bracing, sheathing, and interior wall partitions. Roof construction includes the layout and construction methods of common types of roof, using standard after construction, truss construction, and post and beam construction. Application and selection of sheathing and roofing is included. Consideration is given to coordination of carpentry work with installation of electrical, air conditioning, heating, plumbing, and mechanical equipment.

			Class	Lab	Clinical/Shop	Credit Hours
CAR	**1104**	**Carpentry: Finishing I**	**3**	**0**	**18**	**9**

Prerequisites: CAR 1103, DFT 1111
Emphasis on exterior and interior trims and finishes. Included are materials and methods used in finishing carpentry such as exterior cornices, door and window trims, interior flooring, door and window facings, moldings, and cornice construction; installation of hardware; and installation of built-in equipment and cabinets.

CAR	**1109**	**Carpentry: Millwork and Cabinetmaking I**	**0**	**0**	**6**	**2**

Cabinetmaking and millwork as performed by the general carpenter for building construction. Safe use of shop tools and equipment emphasized in learning methods of construction of millwork and cabinetry. Practical applications include measuring, layout, construction of base and wall cabinets, and built-in desks; materials and finishes are also studied. CAR 1109, 1110, and 1111 series is equivalent to and will substitute for CAR 1101.

CAR	**1110**	**Carpentry: Millwork and Cabinetmaking II**	**0**	**0**	**6**	**2**

Continues the topics introduced in CAR 1109. Interior cornices and trim are introduced. Materials and finishes are also studied. CAR 1109, 1110, 1111 series is equivalent to and will substitute for CAR 1101.

CAR	**1111**	**Carpentry: Millwork and Cabinetmaking III**	**3**	**0**	**3**	**4**

Continues CAR 1109 and CAR 1110. Materials and finishes selection are further studied. CAR 1109, 1110, and 1111 series is equivalent to and will substitute for CAR 1101.

CAR	**1113**	**Carpentry: Estimating**	**3**	**0**	**3**	**4**

Prerequisites: DFT 1111, MAT 1112
Practical course in quantity "take off" from prints of jobs performed by the carpenter; figuring the quantities of materials needed and costs of building various components and structures.

CAR	**1114**	**Building Codes**	**3**	**0**	**0**	**3**

Prerequisite: CAR 1103
Corequisite: CAR 1104
Study of building codes and the minimum requirements for local, county, and state construction regulations. Attention is given to safety, sanitation, mechanical equipment, and materials, and to a review of the minimum property requirements of the Federal Housing Administration and the North Carolina State Code.

COMMERCIAL ART

CAT	**102**	**Drawing I**	**1**	**4**	**0**	**3**

Emphasis on basic principles and fundamentals of drawing. Includes application of these basic techniques in problems in perspective drawing and drawing from nature.

			Class	Lab	Clinical/Shop	Credit Hours
CAT	**103**	**Drawing II**	**1**	**4**	**0**	**3**

Prerequisite: CAT 102
Course consisting of a series of problems in which students explore color and advanced wet and dry media.

CAT	**104**	**Drawing III**	**1**	**4**	**0**	**3**

Prerequisite: CAT 103
Course consisting of a series of problems concentrating on graphic interpretation of still-life, landscape, and figure.

CAT	**107**	**Drafting for Art**	**1**	**3**	**0**	**2**

Introduction to the field of drafting. Includes a study of drawing principles and practices for print reading and describing objects in the graphic language. Basic skills and techniques of drafting included are the use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric instruction, orthographic instruction, drawing of principal views, and standards and practices of dimensioning. The principles of isometric, oblique, and perspective drawing are introduced.

CAT	**108**	**Drafting for Art**	**1**	**3**	**0**	**2**

Prerequisite: CAT 107
Application of orthographic projection principles to the more complex drafting problems; primary and secondary auxiliary views, simple and successive revolutions, and sections and conventions will be studied. Introduction of the graphical analysis of space problems. Problems of practical design elements involving points, lines, planes, and a combination of these elements shall be studied. Dimensioning practices approved by the American Standards Association will also be included. Introduction is given to the intersections and developments of various types of geometrical objects.

CAT	**109**	**Drawing IV**	**1**	**4**	**0**	**3**

Prerequisite: CAT 104
Course consisting of a series of problems involving expression interpretation of graphic form; and stressing sophistication of concept and execution.

CAT	**110**	**Art History to 1300**	**3**	**0**	**0**	**3**

Brief survey of art and its development in western civilization with emphasis on the development of art forms of expression to thirteen-hundred.

CAT	**111**	**Art History Since 1300**	**3**	**0**	**0**	**3**

A brief survey of art and its development in western civilization with emphasis on the development of art forms in expression from thirteen-hundred to the modern era.

CAT	**120**	**Illustration Techniques**	**1**	**4**	**0**	**3**

Prerequisite: CAT 109
Course introducing various media used in creating dynamic visual presentations, the object of which is to stimulate the student's awareness of alternative means of expression.

CAT	**121**	**Design I**	**3**	**6**	**0**	**6**

Introduction to basic design and its elements and concepts. Deals with problems in balance, value, line, texture, and shape. Work with basic tools and materials to explore some of the design possibilities of the two-dimensional format included.

			Class	Lab	Clinical/Shop	Credit Hours
CAT	**122**	**Design II**	**3**	**6**	**0**	**6**

Prerequisite: CAT 121 or portfolio
Continuation of Design I with emphasis on the fundamentals and theories of color and its application and design potential.

CAT	**123**	**Layout and Design I**	**2**	**6**	**0**	**5**

Prerequisites: CAT 107, 108, 121, 122
Introduction to the basic techniques of layout and graphic design including paste-up, mechanicals, typography, and production.

CAT	**210**	**Production Techniques**	**1**	**4**	**0**	**3**

Prerequisites: All 100 level drawing or design courses
Introduction to production techniques. Includes the exploration of mechanical type and its formation and uses. Airbrush techniques and the commercial uses of silkscreen printing are also included. Each student should acquire a working knowledge of each medium through laboratory exercises provided.

CAT	**212**	**Advertising Illustration**	**1**	**4**	**0**	**3**

Introduction to the use of the illustration in advertising. Students will explore the uses of media and illustration styles.

CAT	**213**	**Advertising Illustration**	**1**	**4**	**0**	**3**

Prerequisites: CAT 212, all 100 level drawing or design courses
Advanced problems in advertising illustration with emphasis on originality and the readiness of each student to explore assigned tasks and problems.

CAT	**214**	**Type and Letter Form Design**	**1**	**4**	**0**	**3**

Prerequisites: All 100 level drawing or design courses
Includes hand exercises with the pencil, pen point, and lettering brush as well as mechanical procedures and laboratory exercises to acquire knowledge of availability of type and its usage.

CAT	**218**	**Photomechanical Techniques**	**2**	**6**	**0**	**5**

Prerequisites: PHO 116, 217, all 100 level drawing or design courses
Advanced darkroom techniques concerning both tonal and graphic arts photography. Students explore means of producing finished photo art work for client presentation.

CAT	**224**	**Layout and Design II**	**3**	**6**	**0**	**6**

Prerequisites: CAT 123, all 100 level drawing or design courses
Introduction to intermediate layout and design techniques for offset printing, including the preparation of camera-ready art work. Laboratory problems include an introduction to the graphic art darkroom procedures necessary for offset printing and an introduction of the offset press operation.

CAT	**225**	**Graphic Design I**	**3**	**6**	**0**	**6**

Prerequisites: CAT 224, all 100 level drawing or design courses
Study of advanced problems in layout and design techniques and advanced darkroom procedures necessary for offset production. Laboratory exercises include multicolor offset production problems.

			Class	Lab	Clinical/Shop	Credit Hours
CAT	**226**	**Graphic Design II**	**3**	**6**	**0**	**6**

Prerequisites: CAT 225, all 100 level drawing or design courses
Includes use of simulated professional working conditions in utilizing advanced layout and design techniques for printing. Students will explore a variety of problems and present solutions for general class critique and discussion.

CAT	**235**	**Portfolio Development**	**1**	**4**	**0**	**3**

Students become familiar with specific areas of interest and prepare personal portfolios for presentation to prospective employers.

CAT	**241**	**Painting: Water Color**	**0**	**6**	**0**	**3**

Introduction to the methods of water-color painting. The fluidity of the medium, dry brush effects, and the use of tools and instruments of painting are included. Emphasis will be placed on the integrity of the medium.

CAT	**242**	**Drawing: Pastels**	**1**	**4**	**0**	**3**

Introduction to techniques of pastels, including experimenting with application of chalk to various papers. The use of tools of the craft, methods of applying chalk to the paper surface, and utilizing the paper itself as a moving force in the medium are also included.

CAT	**244**	**Fashion Illustration**	**1**	**4**	**0**	**3**

Study of the clothed figure, with attention to the functional relationship of fashion design to the human form and to the study of draped fabric. Graphic interpretations of a live model in gesture and rendering fabric effects is emphasized.

CAT	**245**	**Painting: Water Color II**	**0**	**6**	**0**	**3**

The field of illustration will be explored using water color as a medium. Special attention will be given to the organization of forms, the many aspects of color, the application of paint as texture and light, and the special effects of various instruments. Work will be done from magazine cutout collages and from actual on-location field trips.

CAT	**250**	**Special Problems in Commercial and Graphic Design**	**1**	**4**	**0**	**3**

Designed for students who wish to expand their knowledge and ability in particular areas of interest. Permission to enroll must be obtained from department chairman.

CAT	**251**	**Special Problems in Commercial and Graphic Design**	**3**	**6**	**0**	**6**

Course designed for the exceptional student who wishes to develop a particular project in a specific area of interest. Permission to enroll must be obtained from department chairman.

CHEMISTRY

CHM	**099**	**Chemical Principles**	**3**	**2**	**0**	**4**

Introduces basic chemical principles including atomic and molecular structure, chemical nomenclature, formulas, equations, and chemical reactions. Designed for the student with no chemistry background.

		Class	Lab	Clinical/Shop	Credit Hours
CHM 101	**Chemistry**	**4**	**2**	**0**	**5**

Review of the physical and chemical properties of substances; chemical changes; elements, compounds, and gases; chemical combinations; weights and measurements; theory of metals; acids, bases, salts, solvents, solutions, and emulsions; electrochemistry, electrolytes, and electrolysis; and application of chemistry to industry.

CHM 102	**Introduction to General Chemistry**	**4**	**2**	**0**	**5**

An introduction to environmental chemistry. The course will cover the relationship of chemistry to man and his environment. Topics studied include environmental measurements, atomic theory, the nature of chemical bonds, the structure of matter, molecular motion, and chemical reactions. Practical applications will be emphasized using class demonstrations and labs.

CHM 103	**General Chemistry II**	**4**	**2**	**0**	**5**

Prerequisite: CHM 102
A continuation of CHM 102 including practical applications to environmental problems. Topics covered include inorganic nomenclature, gas laws and properties, the liquid state, solutions and concentration, chemical equilibrium, acids, bases, and heavy metals. Demonstrations and labs will be utilized.

CHM 104	**General Chemistry III**	**4**	**2**	**0**	**5**

Prerequisites: CHM 102, 103
Continuation of CHM 103 beginning with an introduction to organic and biochemistry. This will be followed by advanced topics in applied chemistry including: water and wastewater chemistry, chemical analysis of air and water samples, instrumental methods of air and water analysis.

CHM 106	**Organic Chemistry**	**4**	**2**	**0**	**5**

Study of the general principles and theories of organic chemistry and the preparation, formulas, and properties of the most important organic compounds, with a brief description of synthetic compounds of commercial value; vitamins, antibiotics, hormones, and pesticides are included.

CHM 110	**Chemistry for Allied Health**	**3**	**2**	**0**	**4**

Prerequisite: MAT 100
A survey of general, organic, and biological chemistry with emphasis placed on the aspects of chemistry that apply to physiological and biochemical processes.

CHM 250	**Inorganic Chemistry**	**3**	**2**	**0**	**4**

Prerequisite: MAT 101
Study of inorganic chemistry including matter and energy, atoms, chemical bonds, chemical reactions and equations, gases, solutions, acids, bases, salts, ionization, and radiation.

CHM 251	**Organic Chemistry**	**3**	**2**	**0**	**4**

Prerequisite: CHM 250
Study of organic compounds including nomenclature, properties, and reactions of hydrocarbons and derived compounds including alcohols, ethers, carbonyl compounds, amines, and amides.

			Class	Lab	Clinical/Shop	Credit Hours
CHM	**252**	**Biochemistry**	**3**	**2**	**0**	**4**

Prerequisite: CHM 251
Study of the structure and intermediary metabolism of carbohydrates, lipids, proteins, nucleic acids, hormones, vitamins, and enzymes.

CIVIL ENGINEERING

CIV	**101**	**Surveying**	**2**	**0**	**6**	**4**

Prerequisites: MAT 102, ARC 107
Study of the theory and practice of plane surveying, including taping, differential and profile leveling, cross sections, earthwork computations, transit stadia, and transit tape surveys. Layout of footings, floor levels, site work, and mapping included. Problem solving using computer data.

CIV	**102**	**Surveying**	**2**	**6**	**0**	**4**

Triangulation of ordinary precision, use of plane tablet, calculation of areas of land, land surveying, topographic surveys, and mapping are included in this course.

CIV	**103**	**Surveying**	**2**	**6**	**0**	**4**

Includes a study of route surveys by ground and aerial methods; simple, compound, reverse, parabolic, and spiral curves; geometric design of highways; and highway surveys and plans, including mass diagrams.

CIV	**105**	**Architectural Materials and Methods I**	**3**	**3**	**0**	**4**

Materials used in the construction of architectural structures are studied. Field trips to construction sites and a study of manufacturers; specifications for materials and of properties and standard sizes of structural materials and construction techniques are included.

CIV	**106**	**Architectural Materials and Methods II**	**3**	**3**	**0**	**4**

Prerequisite: CIV 105
Study of building materials and construction methods for commercial buildings.

CIV	**110**	**Surveyor Practices**	**1**	**0**	**0**	**1**

Study of the legal principles of surveys and resurveys, including boundary control and interpretation of deed descriptions. Legal, judicial, and historical aspects of land surveying also studied.

CIV	**114**	**Statics**	**5**	**0**	**0**	**5**

Prerequisite: MAT 102
Study of forces, resultants, and types of force systems; moments; equilibrium of coplanar forces for analytical and graphic methods; stresses and reactions in simple structures; equilibrium of forces in space; and center of gravity, centroids, moment of inertia, and hydrostatic load analysis. Problem solving using computer data.

CIV	**204**	**Surveying**	**2**	**0**	**6**	**4**

Study of aerial photogrammetry, applications of aerial surveys, building and road construction surveying, lines and grades for foundation layout, building construction, bridge layout, and sewer and pipe line surveys.

			Class	Lab	Clinical/ Shop	Credit Hours
CIV	**216**	**Strength of Materials**	**3**	**2**	**0**	**4**

Prerequisites: CIV 114, MAT 103
Study of fundamental stress and strain relationship; shear and bending moments; stresses and deflections in beams and columns. Design of members also included. Problem solving using computer data.

CIV	**221**	**Reinforced Concrete Construction**	**3**	**2**	**0**	**4**

Prerequisite: CIV 216
Analysis and design of reinforced concrete beams, floor systems, columns, use of CRSI Design Handbook, introduction to ultimate strength design, and principles of prestressed and precast concrete are studied. Field inspection trips are included.

CIV	**223**	**Codes, Contracts, and Specifications**	**2**	**0**	**0**	**2**

Study of the basic principles and methods significant in contract relationships, legal considerations in construction work, and the National Building Code and local building codes. Interpreting and outlining specifications also included.

CRIMINAL JUSTICE

CJC	**101**	**Introduction to Criminal Justice**	**5**	**0**	**0**	**5**

Designed to provide an overview of the criminal justice system including its philosophy, objectives, and legal limitations in a democratic society.

CJC	**102**	**Legal Research I**	**3**	**0**	**0**	**3**

Methods of legal research; proper citation of authority; acquaintance with legal treaties, texts, reports; and the use of Shepard's Citations.

CJC	**109**	**Interviewing**	**3**	**0**	**0**	**3**

Prerequisite: Permission of instructor or coordinator
Designed to provide a knowledge of the fundamental techniques employed in interviewing; introduction to interrogation and overview of sources of information available to investigators.

CJC	**112**	**Motor Vehicle Laws**	**3**	**0**	**0**	**3**

Study of the traffic enforcement codes with primary emphasis on North Carolina law.

CJC	**113**	**Corrections Law**	**3**	**0**	**0**	**3**

Study of the laws which deal with the rights, custody, and control of individuals under the supervision of the judicial system.

CJC	**115**	**Criminal Law I**	**3**	**0**	**0**	**3**

Study of criminal laws dealing with offenses against the person. Emphasis is placed on North Carolina law.

CJC	**116**	**Criminal Law II**	**3**	**0**	**0**	**3**

Prerequisite: CJC 115 or permission of instructor or coordinator
Study of criminal laws dealing with offenses against property. Emphasis placed on North Carolina law.

			Class	Lab	Clinical/Shop	Credit Hours
CJC	**120**	**Principles of Organization**	**3**	**0**	**0**	**3**

Introduction to the principles of organization and administration with emphasis upon theories and techniques utilized in public agencies.

CJC	**121**	**Personnel Supervision**	**3**	**0**	**0**	**3**

Prerequisite: CJC 120 or permission of instructor or coordinator
Study of the principles and theories employed in modern personnel supervision.

CJC	**125**	**Criminal Procedure**	**2**	**0**	**0**	**2**

Designed to provide the student with a knowledge of legal aspects of criminal procedures from the initial investigation through the final appeal.

CJC	**151, 152, 153, 154, 155, 156**					
		Readings in Criminal Justice	**1**	**0**	**0**	**1**

Designed for students who wish to specialize or expand their knowledge in certain areas of criminal justice. Under the supervision of police science faculty members, the student studies materials relative to concepts in criminal justice and writes critical analyses. Times for students' independent study and individual conferences are allotted with the supervising instructor.

CJC	**204**	**Evidence Photography**	**3**	**3**	**0**	**4**

Study of photographic principles and their application to evidence photography. Students develop skills in photographic techniques and the use of various types of equipment through lab practice.

CJC	**205**	**Evidence**	**3**	**0**	**0**	**3**

Instruction covers the legal aspects of the various kinds and degrees of evidence and the rules governing the admissibility of evidence in court.

CJC	**210**	**Criminal Investigation**	**4**	**2**	**0**	**5**

Prerequisites: CJC 204, 211
Course designed to instruct the student in the fundamental concepts of investigation.

CJC	**211**	**Criminalistics**	**4**	**2**	**0**	**5**

Prerequisite: CHM 101
General survey of the methods and techniques employed in modern scientific investigations with emphasis on evidence which is compared by physical means.

CJC	**235**	**Forensic Science**	**3**	**2**	**0**	**4**

Prerequisite: CHM 101
Survey of the physical sciences and their application to the field of investigation with emphasis on evidence which is compared chemically.

COOPERATIVE EDUCATION

		Class	Lab	Clinical/Shop	Credit Hours
COE 100	**Job Search and Career Planning**	**3**	**0**	**0**	**3**

Explores career areas indicating required academic preparation and related job information. Includes interpretation and analysis of self-assessment, values clarification, skills identification and transferability, principles of decision-making and application. Research career fields requiring use of career information center and interviews with persons in career fields which interest the student.

COE 101 A, B, C, D*	**Cooperative Education Field Experience**	**0**	**10-40**	**0**	**1-4**
COE 102 A, B, C, D					
COE 103 A, B, C, D					
COE 104 A, B, C, D					
COE 105 A, B, C, D					
COE 106 A, B, C, D					
COE 107 A, B, C, D					

Through Cooperative Education, students work in part-time or full-time positions related to their programs of study or career interests and for employers selected and/or approved by the institution. Students are supervised by a faculty member or cooperative education supervisor from the institution. Normal credit hours for the field work of a cooperative program are determined by dividing the average number of hours worked per week by ten and rounding to the nearest whole number. Generally, a student may receive a maximum of four credit hours during any one quarter, but may not receive more than the number allowable toward graduation in the chosen degree or diploma program.

*A (1) , B (2), C (3), D (4) indicates credit hours possible.

Cooperative Education is a part of the instruction in approved programs for the number of credit hours provided by Curriculum Standards of the Department of Community Colleges. Co-op may substitute for an elective or major course on a credit for credit basis. (Curricula in which Cooperative Education is not allowed are indicated.)

Cooperative education courses do not qualify for veterans' benefits.

COSMETOLOGY

		Class	Lab	Clinical/Shop	Credit Hours
COS 1101	**Cosmetology I**	**0**	**0**	**40**	**12**

Includes a study of professional ethics, grooming, and personality development; and sterilization, sanitation, first aid, and bacteriology. The practical work is devoted to fingerwaving, pin curling, roller curling, manicuring, marcelling, hair cutting, and hair relaxing.

COS 1102	**Cosmetology II**	**0**	**0**	**40**	**12**

Study of the theory and practical application of permanent waving (cold and heat wave), tinting and bleaching, anatomy, facials, and scalp treatments.

			Class	Lab	Clinical/Shop	Credit Hours
COS	**1103**	**Cosmetology III**	**0**	**0**	**40**	**12**

Study of the theory and practical application of hair styling and wig care; disorders of skin, nails, and hair; electricity; chemistry; and operational management.

COS	**1104**	**Cosmetology IV**	**0**	**0**	**40**	**12**

Study of the theory and practical application of advanced hair styling, operational management, and salesmanship.

CORRECTIONAL SCIENCE

CSC	**201**	**Marriage and the Family**	**3**	**0**	**0**	**3**

Study of courtship, engagement, marriage, parenthood, and family living in contemporary American society. Emphasis is placed on social, economic, sexual, and legal aspects of family living and the adjustment of individuals to their respective roles in the family.

CSC	**203**	**Survey of Corrections**	**3**	**0**	**0**	**3**

Introduction and overview of fundamental processes, trends, and practices of juvenile and adult probation, institutional treatment, parole, and contemporary community-based correctional programs, both public and private. Review of the history and philosophy of corrections, with emphasis on the constitutional rights of offenders included.

CSC	**207**	**Confinement Facilities Administration**	**3**	**0**	**0**	**3**

Supervision and administration of confinement facilities, involving techniques of inmate supervision, security, medical care of prisoners, food preparation, sanitation, and various legal aspects controlling detention facilities, correctional institutions, and jails.

CSC	**213**	**Dynamics of Substance Abuse**	**3**	**0**	**0**	**3**

Introduction to the problem of substance abuse (alcohol, drugs, narcotics) in society. Designed to equip criminal justice, social service, and other human service workers with increased knowledge concerning history and classification of drugs of abuse; social impact and physical and psychological results of their abuse; and the various facilities and treatment modalities being used.

CSC	**224**	**Rehabilitation Techniques**	**3**	**0**	**0**	**3**

Explores the different avenues of rehabilitation; new and innovative techniques of rehabilitation emphasized as they relate to successful methods.

CSC	**226**	**Administration and Interpretation of Tests**	**3**	**0**	**0**	**3**

Study of the rationale for group and individual testing. Includes the administration as well as the uses of tests of intelligence, interest, and achievement in educational and career planning. Practicum experience closely correlated with classroom activities so that students may apply knowledge and skills to actual on-the-job learning situations.

			Class	Lab	Clinical/Shop	Credit Hours
CSC	**229**	**Career Information**	**3**	**2**	**0**	**4**

Study of the career and educational information available to aid students in career decision-making. Includes a study of the world of work; sources of occupational information; and sociological and psychological factors which influence career planning. Practicum experience correlated with classroom activities so that students apply knowledge and skills to actual on-the-job learning situations.

CSC	**234**	**Community-Based Corrections**	**3**	**0**	**0**	**3**

Exploration of philosophy and programs of juvenile and adult probation supervision, aftercare parole, halfway homes, work and educational release-furlough, as well as executive clemency and interstate compact practices. Dilemma of surveillance-custody/control factors vs. supervision-treatment examined. Introduction to classification of offenders, followed by analysis of possible treatments. Citizen-agency relationships investigated, along with potentials of utilizing citizen volunteer programs.

DRAFTING

DFT	**101**	**Technical Drafting**	**1**	**3**	**0**	**2**

Introduction to the field of drafting. Includes a study of drawing principles and practices for print reading and describing objects in the graphic language. Basic skills and techniques of drafting included are the use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric instruction, orthographic instruction, drawing of principal views, and standards and practices of dimensioning. The principles of isometric, oblique, and perspective drawing are introduced.

DFT	**102**	**Technical Drafting**	**1**	**3**	**0**	**2**

Prerequisite: DFT 101

Application of orthographic projection principles to the more complex drafting problems, primary and secondary auxiliary views, simple and successive revolutions, and sections and conventions. Introduction of the graphical analysis of space problems stressed. Problems of practical design elements involving points, lines, planes, and a combination of these elements are studied. Dimensioning practices approved by the American Standards Association are included. Introduction to intersections and developments of various types of geometrical objects.

DFT	**104**	**Blueprint Reading: Mechanical**	**3**	**0**	**0**	**3**

Interpretation and reading of blueprints. Information on the basic principles of the blueprint, including lines, dimensioning procedures, and notes.

DFT	**105**	**Blueprint Reading and Sketching**	**3**	**0**	**0**	**3**

Prerequisite: DFT 104

Further practice in interpretation of blueprints as they are used in industry: study of prints supplied by industry, making plans of operation, introduction to drafting room procedures, and sketching as a means of passing on ideas.

DFT	**106**	**Blueprint Reading and Technical Sketching**	**2**	**0**	**0**	**2**

General course in interpreting and reading blueprints. Information includes the basic principles of the blueprint, lines, views, dimensioning procedures, and notes. Emphasis placed on reading of blueprints common to the building systems. Sketching as a means of passing on ideas and information introduced.

			Class	Lab	Clinical/Shop	Credit Hours
DFT	**230**	**Structural Drafting**	**2**	**6**	**0**	**4**

Prerequisites: ARC 220, CIV 105
Concentrated study and drawing of structural plans with emphasis on details and shop drawings of the structural components of buildings including steel, reinforced concrete, and timber structures. Appropriate symbols, conventions, dimensioning practices, and notes used by the draftsman included. Emphasis also on drafting appropriate drawings for fabrication and erection of the structural components.

DFT	**235**	**Codes, Specifications, and Contract Documents**	**3**	**3**	**0**	**4**

Prerequisite: ARC 220
Study of building codes and their effect on specifications and drawings. Purpose and writing of specifications and their legal and practical application to working drawings are studied. Contract documents analyzed and studied to determine client-architect-contractor responsibilities, duties, and mutual protection.

DFT	**236**	**Construction Estimating and Field Inspecting**	**3**	**3**	**0**	**4**

Prerequisite: DFT 235
Includes interpretation of working drawings for a project; preparation of material and labor quantity surveys from plans and specifications; and approximate and detailed estimates of costs. Students study material take off, labor take off, subcontractors' estimates, overhead costs, and bid and contract procedures. Detailed inspection of the construction by comparing the finished work to the specifications is also included.

DFT	**1104**	**Blueprint Reading: Mechanical**	**3**	**0**	**0**	**3**

Interpretation and reading of blueprints. Information on the basic principles of the blueprint, lines, views, dimensioning procedures, and notes.

DFT	**1105**	**Blueprint Reading: Mechanical**	**3**	**0**	**0**	**3**

Prerequisite: DFT 1104
Further practice on interpretation of blueprints as they are used in industry; study of prints supplied by industry, making plans of operations; introduction to drafting room procedures, and sketching as a means of passing on ideas.

DFT	**1106**	**Blueprint Reading: Mechanical**	**3**	**0**	**0**	**3**

Prerequisite: DFT 1105
Advanced blueprint reading and sketching as related to detail and assembly drawings used in machine shops. Interpretation of drawings of complex parts and mechanisms for features of fabrication, construction, and assembly.

DFT	**1110**	**Blueprint Reading: Building Trades**	**3**	**0**	**0**	**3**

Principles of interpreting blueprints and specifications common to the building trades. Development of proficiency in making three-dimensional views and pictorial sketches.

DFT	**1111**	**Blueprint Reading and Sketching I**	**3**	**0**	**0**	**3**

Prerequisite: DFT 1110
Principles of interpreting blueprints and specifications common to the building trades. Practice in reading details for grades, foundations, walls, elevations, chimneys, fireplaces, arches, and cavity wall construction. Development of proficiency in making three-dimensional views and pictorial sketches.

			Class	Lab	Clinical/ Shop	Credit Hours
DFT	**1112**	**Blueprint Reading and Sketching II**	**3**	**0**	**0**	**3**

Prerequisite: DFT 1111
Designed to develop abilities in reading complex drawings in the masonry field. Blueprints of residential and commercial buildings studied with emphasis on the plot plan, floor plan, basement and/or foundation plan, walls, and various detailed drawings of masonry work.

DFT	**1113**	**Blueprint Reading and Sketching III**	**3**	**0**	**0**	**3**

Prerequisite: DFT 1110
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 installations using appropriate symbols and notes according to the applicable codes included.

DFT	**1114**	**Blueprint Reading and Sketching: Masonry**	**3**	**0**	**0**	**3**

Prerequisite: DFT 1112
A study of different types of structural designs and details for commercial construction. A study of different construction trades and how each trade relates to the masonry trade.

DFT	**1116**	**Blueprint Reading: Air Conditioning**	**1**	**3**	**0**	**2**

Prerequisite: DFT 1104
A specialized course in drafting for the air conditioning, heating, 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, and shop sketches. The student will make tracings of floor plans and layout air conditioning systems.

DFT	**1117**	**Blueprint Reading: Welding**	**3**	**0**	**0**	**3**

Prerequisite: DFT 1104
Study of trade drawings in which welding procedures are indicated. Interpretation, use, and application of welding symbols, abbreviations, and specifications.

DFT	**1118**	**Pattern Development and Sketching**	**3**	**0**	**0**	**3**

Continued study of welding symbols; methods used in layout of sheet steel; sketching of projects; and jigs and hold devices involved in welding. Special emphasis placed on developing pipe and angle layouts by the use of patterns and templates.

DFT	**1201**	**Drafting: Mechanical I**	**1**	**3**	**0**	**2**

Introduction to drafting room procedures; sketching as a means of passing on ideas, information, and processes; and the use of drafting instruments in the practice of lettering, dimensioning, orthographic projections, and working drawings.

DFT	**1202**	**Drafting: Mechanical II**	**1**	**3**	**0**	**2**

Prerequisite: DFT 1201
Additional instruction and practice in orthographic projections, working drawings, lettering, and dimensioning. Also included is an introduction to sectioning, pictorial drawings, and the use of drawing instruments for the graphical solution of geometrical problems. Emphasis placed on interpretation of shop blueprints to better prepare students for DFT 1105

ECONOMICS

			Class	Lab	Clinical/Shop	Credit Hours
ECO	**108**	**Consumer Economics**	**3**	**0**	**0**	**3**

Designed to help students use their resources of time, energy, and money. Students given opportunities to build useful skills in buying, managing finances, increasing resources, and understanding the economy.

ECO	**150**	**Economics I**	**3**	**0**	**0**	**3**

Fundamental principles of microeconomics including the institutions and practices by which people gain a livelihood. Emphasis placed on basic conditions for the market system and how the market process functions in the real world. Supply and demand, price and cost, and current economic problems stressed.

ECO	**151**	**Economics II**	**3**	**0**	**0**	**3**

Continuation of a study of the principles of economics, with emphasis on macro-issues such as national output and income, international trade and finance, and current economic problems.

ECO	**152**	**Economics III**	**3**	**0**	**0**	**3**

Prerequisite: ECO 151
Continuation of the study of basic economic principles. Emphasis placed on current macro- and microeconomics problems and application of economic principles to short-range forecasting.

ECO	**201**	**Cost-Benefit Analysis**	**3**	**0**	**0**	**3**

Study of methods for project evaluation, including decision criteria, identifying and quantifying cost and benefits, and procedures for performing a cost benefit analysis.

ELECTRONIC DATA PROCESSING

***EDP**	**112**	**Introduction to Microcomputers and Programming**	**2**	**2**	**0**	**3**

A general introduction to microcomputers, their capabilities, available software, and the BASIC programming language. Intended for novices only.

***EDP**	**113**	**Intermediate Programming for Microcomputers**	**2**	**2**	**0**	**3**

Prerequisite: EDP 112 or any programming language
Reviews the BASIC language conventions and introduces file processing for business and personal use.

EDP	**114**	**Introduction to Computer Concepts**	**3**	**0**	**0**	**3**

Introductory course in computers for students pursuing degree in data processing or desiring a general non-technical knowledge of terminology and concepts. No previous knowledge or experience in data processing required.

*Fee of $2.50 per lab hour

			Class	Lab	Clinical/Shop	Credit Hours
***EDP**	**115**	**FORTRAN**	**2**	**4**	**0**	**4**

Fundamental course in FORTRAN programming. The FORTRAN language structure, statements, and programming methods and techniques are studied. Students develop program logic and write FORTRAN programs for solving sample problems.

***EDP**	**116**	**Assembly Language I**	**2**	**4**	**0**	**4**

Study of symbolic computer languages with emphasis on a particular example of such a language. Students develop program logic and write programs using Assembly Language to solve appropriate assigned problems.

***EDP**	**117**	**Assembly Language II**	**2**	**4**	**0**	**4**

Continuation of Assembly Language to provide students more depth and experience using a symbolic programming language.

***EDP**	**118**	**COBOL I**	**2**	**4**	**0**	**4**

Designed to provide basic training in structured COBOL programming. The COBOL language programming methods and techniques are studied. Students develop program logic and write structured COBOL programs for solving sample problems.

***EDP**	**119**	**COBOL II**	**2**	**4**	**0**	**4**

Continuation of training in COBOL programming techniques and methods. Designed to provide students with the opportunity to apply skills learned in COBOL I to typical business applications with emphasis on arrays, tables, and control breaks, and disc file organization.

***EDP**	**130**	**Beginning Graphics for Microcomputers**	**2**	**2**	**0**	**3**

Prerequisite: EDP 112 or familiarity with BASIC and microcomputers
Introduces monochromatic and color X, Y axes plotted graphics, shape tables, forms design, business graphics such as bar charts, and icon and mouse-generated graphics using a package.

EDP	**150**	**Introduction to Computers**	**5**	**0**	**0**	**5**

Presents the basic concepts of data processing fundamentals, including programming business economics problems for a computer.

***EDP**	**211**	**Applications I**	**2**	**4**	**0**	**4**

Designed to provide students with sufficient knowledge in computer methodology to permit the use of computers in business. Emphasis centers on the development of a typical business computer, including complete documentation, using a team programming approach.

***EDP**	**212**	**Applications II**	**2**	**4**	**0**	**4**

Emphasizes the preparation and utilization of operations data used in a typical business, case problems involving systems established for collecting the data, and generating information for organizational units. Audit trails enabling the tracing of transactions back to the original source or forward to the first report analyzed. Simulated data used to demonstrate programming techniques required in processing management information. Structure of data files receives major emphasis. Students design, program, and test an entire business application with minimum assistance.

*Fee of $2.50 per lab hour

			Class	Lab	Clinical/Shop	Credit Hours
***EDP**	**214**	**Computer Systems I**	**2**	**2**	**0**	**3**

Study of computer systems involving concepts of architecture and programming such as channels, interrupts, multiprogramming, job scheduling, file devices, and file organization.

***EDP**	**223**	**Introduction to RPG II**	**2**	**4**	**0**	**4**

Study of a report generator language appropriate for use with a small computing system. Students develop program logic and write programs to solve appropriately related sample business problems.

***EDP**	**224**	**RPG II**	**2**	**4**	**0**	**4**

Prerequisite: EDP 223
Continuation of EDP 223 with special emphasis on applications and programming procedures of the smaller business.

EDP	**230**	**Internship I**	**0**	**10**	**0**	**5**

Cooperative endeavor between Pitt Community College and industry to give students on-the-job training experience. Students work in computer operations for a given company, on location, for a minimum of 10 hours per week.

EDP	**231**	**Internship II**	**0**	**10**	**0**	**5**

Continuation of the on-the-job training begun in EDP 230.

***EDP**	**233**	**Customer Information Computer System**	**2**	**4**	**0**	**4**

Provides instruction in writing telecommunications application programs to run under control of the Customer Information Computer System (CICS). Also, students learn the concepts and operation of the information display system to fully utilize the display format facility of the CICS.

EDUCATION

EDU	**102**	**Child Health and Safety**	**3**	**0**	**0**	**3**

Study of environmental influences on the physical and mental health of young children. Emphasis on first aid practices and available community services for children.

EDU	**103**	**Preschool Orientation**	**1**	**0**	**6**	**3**

Supervised learning activities related to policies and procedures used in operating a child development center.

EDU	**104**	**Preschool Observation**	**1**	**0**	**6**	**3**

Prerequisite: EDU 103
Supervised learning activities related to observing children individually and in group activities.

*Fee of $2.50 per lab hour

			Class	Lab	Clinical/Shop	Credit Hours
EDU	**106**	**Practicum in Elementary School**	**1**	**0**	**15**	**6**

Program of supervised practices as an assistant in the education of children ages five to eight.

EDU	**107**	**Practicum in Preschool Experiences**	**1**	**0**	**15**	**6**

Program of supervised practice in the care and education of preschool children.

EDU	**111**	**Language Arts Techniques I**	**5**	**0**	**0**	**5**

Study of language acquisition of young children and its relationship to developing reading skills. Attention given to the various approaches to teaching reading with particular emphasis on the phonic method.

EDU	**115**	**Audiovisual and Media Production**	**3**	**0**	**0**	**3**

Introduction to the multi-media approach to teaching young children. Students have the opportunity to explore all phases of the library, including cataloging, reference materials, and periodicals. Experiences provided in the use of audiovisual equipment and duplicating machines. Experience with a laminating process, making transparencies, placing orders for films, and other visual aids provided while developing science and social studies units of work.

EDU	**202**	**Discipline Strategies in the Classroom**	**3**	**0**	**0**	**3**

Survey of various approaches to discipline. Attention given to the more popular models with practical guides for selecting a positive and personal approach.

EDU	**203**	**Exceptional Child**	**5**	**0**	**0**	**5**

Introductory course for those who may work with exceptional children. Examination of the characteristics and problems relating to educating typical children.

EDU	**204**	**Parent Education**	**3**	**0**	**0**	**3**

Study of ways parents can be involved in child development, of the purposes of values of home visitation, and of the techniques for reporting child's progress to parents. The role of the educational associate in aiding parents in the guidance of the child's development is emphasized.

EDU	**224 A, B, C,**	**Seminar-Practicum: Elementary School**	**1**	**0**	**15**	**6**

Prerequisite: Student must have completed at least five quarters of twelve credit hours each at Pitt Community College and maintained a cumulative grade point average of 2.0 or better.

The seminar-practicum experience involves students with the learning processes in an elementary school. These experiences enable the students to gain exposure in many facets in education as well as to do specialized study in given areas. Through "learning by doing," the student may correlate his knowledge and skills to an actual teaching situation.

EDU	**225 A, B, C**	**Seminar-Practicum: Preschool**	**1**	**0**	**15**	**6**

The practicum and seminar experience involves students with the learning process in a variety of educational settings. These experiences enable the students to gain exposure to many facets of education as well as to do specialized study in given areas. Through "learning by doing," students correlate knowledge and skills to actual teaching situations.

			Class	Lab	Clinical/Shop	Credit Hours
EDU	**229**	**Infant Care**	**3**	**0**	**0**	**3**

A study of infants, their behavior and development, and the importance of adequate and appropriate care of the newborn and infant.

EDU	**230**	**Preschool Education**	**5**	**0**	**0**	**5**

Study of principles and practices of early childhood education including the types of experiences and facilities which promote optimal development of each child. Guidelines for identifying, planning, organizing, and implementing appropriate programs and facilities are derived through group discussion and individual projects. Field experience provides opportunities to observe children and programs in different preschool facilities.

EDU	**231**	**Creative Activities**	**5**	**0**	**0**	**5**

Individual and group exploration of activities and materials for promoting optimal development of children. Designed to develop an appreciation of the need for play and the activities appropriate at various stages of development.

EDU	**232**	**Preschool Administration and Supervision**	**3**	**0**	**0**	**3**

Designed to assist students in establishing policies and procedures for the operation of a center for the daily group care of young children.

EDU	**240**	**Organizing the CDA Portfolio**	**3**	**0**	**0**	**3**

Prerequisites: EDU 104, 225A, 225B
Develops a system whereby the CDA candidate/intern documents evidence of demonstrated competence in thirteen functional areas of child care giving.

EDU	**241A**	**Introduction to the CDA Process**	**2**	**0**	**40**	**6**

Evaluates employed child care workers to determine whether they possess the basic competencies needed to assume primary responsibility for the daily activities of young children in group care.

EDU	**241B**	**Developing the CDA Portfolio**	**3**	**0**	**0**	**3**

Prerequisite: EDU 241A
Develops a system whereby the CDA candidate/intern documents evidence of demonstrated competence in thirteen functional areas of child care giving.

EDU	**250**	**Introduction to Education**	**4**	**2**	**0**	**5**

Study of education as an institution in society. Emphasis is on the educational system in the U.S. including historical, philosophical, sociological, and psychological foundations of American education. Additional topics included are local, state, and federal organization of education; current issues and innovations in the schools; and teaching as a profession. During scheduled laboratory hours, students complete a minimum 16 hours as participants in public school classrooms. Not a practice teaching course.

ENERGY

EGY	**101**	**Energy Technology**	**2**	**2**	**0**	**3**

Provides an introduction to energy technology with emphasis on the energy crisis, the nature of energy, energy use patterns and forecasts, sources of energy, and the need for energy conservation as one rational approach to the energy crisis.

			Class	Lab	Clinical/Shop	Credit Hours
EGY	**109**	**Mechanical Devices and Building Systems**	**2**	**2**	**0**	**3**

A general study of environmental systems and building mechanical systems and structures with emphasis on energy consumption and loss. Heat loss and heat gain calculations will be covered as well as applicable codes and regulations.

EGY	**110**	**Energy Audits and Procedures**	**2**	**2**	**0**	**3**

Introductory course in the basics of energy audits and procedures. Emphasis on the practical application of the concepts, the collection of data, and meaningful reporting of the information.

EGY	**111**	**Energy Conservation Techniques**	**2**	**2**	**0**	**3**

Continuation of EGY 110 with emphasis on the techniques for correcting those energy loss areas found during the audit. Weatherization procedures and application of appropriate materials covered.

EGY	**112**	**Special Projects: Energy**	**1**	**6**	**0**	**3**

Special projects assigned to provide students with practical experience in the areas covered by EGY 110 and EGY 111.

EGY	**201**	**Fundamentals of Solar Energy**	**2**	**2**	**0**	**3**

Fundamentals of solar radiation, transmission, and absorption. Flat plate and focusing collectors, thermal storage, and utilization of solar energy for heating and cooling covered.

EGY	**202**	**Solar Energy Application**	**2**	**3**	**0**	**3**

Continuation of EGY 201 with emphasis on the application of the fundamentals to working solar systems. Information essential for sizing, installing, and servicing solar devices covered.

EGY	**203**	**Energy Management and Planning**	**3**	**0**	**0**	**3**

Basic concepts of an energy management and conservation program. Emphasis on the component parts of the system with specific end-use restrictions and "quick-fix" measures as means of conserving energy.

EGY	**205**	**Alternate Energy Sources**	**2**	**2**	**0**	**3**

A study of the advantages, disadvantages, and applications of various alternate energy sources including alcohol, wind, hydrogen, methane, and small scale hydroelectric systems. Emphasis will be on the possible utilization of these alternate sources as replacements for conventional fuels.

ELECTRICITY

ELC	**101**	**Fundamentals of Electricity I**	**4**	**4**	**0**	**6**

Corequisite: MAT 101

Study of the elementary principles of electricity, including basic electric units, Ohm's Law, Kirchoff's Law, network theorems, magnetics, basic electrical measuring instruments, inductance, capacitance, sine wave analysis, and non-resonant resistive, inductive, and capacitive networks.

			Class	Lab	Clinical/Shop	Credit Hours
ELC	**102**	**Fundamentals of Electricity II**	**5**	**4**	**0**	**7**

Prerequisite: ELC 101
Study of series and parallel resonant-circuit analysis, resonant and non-resonant transformer analysis, basic diode power analysis, and an introduction to electro-mechanical devices.

ELC	**112**	**Alternating and Direct Current**	**2**	**6**	**0**	**4**

Study of the electrical structure of matter; the electron theory; and the relationship between voltage, current, and resistance in series, parallel, and series-parallel circuits. Ohm's Law and Kirchoff's Law and the relationships and applications of electricity to modern industrial machinery are included.

ELC	**113**	**Alternating Current and Direct Current Machines and Controls**	**2**	**6**	**0**	**4**

Prerequisite: ELC 112
Study of the fundamental concepts in single and polyphase alternating current circuits, voltages, current, power measurements, transformers, and motors. Instruction given in the use of electrical test instruments in circuit analysis. Includes a study of the basic concepts of AC and DC machines; simple system controls; and an introduction to the types of controls used in small appliances, including thermostats and timers or sequencing switches.

ELC	**119**	**Industrial Electrical Controls and Systems**	**2**	**6**	**0**	**4**

Prerequisite: ELC 113
Fundamental concepts and applications of electrical, pneumatic, and hydraulic control systems. Controls, protecting devices, and industrial applications emphasized.

ELC	**121**	**Electrical Troubleshooting**	**2**	**3**	**0**	**3**

Prerequisites: ELC 112, 113
Utilization of all service tools, instruments, and equipment necessary to analyze all aspects of service and repair, using the procedures employed in service and repair in industry. Students expected to demonstrate ability and initiative in the troubleshooting problems presented.

ELC	**210**	**Rotating Devices**	**2**	**2**	**0**	**3**

Prerequisites: ELC 102, PHY 102
Introduction to electrical machinery. Includes an analysis of AC and DC motor and generator principles, synchros and servomechanisms, and alternators and dynamotors. Basic theory, operation, and maintenance of these devices and systems emphasized.

ELC	**1102**	**Applied Electricity**	**3**	**3**	**0**	**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 troubleshooting 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	**1110**	**Direct Current Theory and Practice**	**5**	**0**	**12**	**9**

Study of the structure of matter and the electron theory; the relationship between voltage, current, and resistance in series, parallel, and series-parallel circuits. Includes

			Class	Lab	Clinical/Shop	Credit Hours

an analysis of direct current circuits by Ohm's Law and sources of direct current potentials.

ELC	**1111**	**Alternating Current Theory and Practice**	**5**	**0**	**12**	**9**

Study of the fundamental concepts of alternating current, including the generation of sine waves and other non-sinusoidal waveforms, reactance, impedance, power, resonance, and alternating current circuit analysis.

ELC	**1112**	**Direct and Alternating Current**	**5**	**0**	**12**	**9**

Study of the electrical structure of matter and electron theory, and the relationship between voltage, current, and resistance in series, parallel, and series-parallel circuits. Includes an analysis of direct current circuits by Ohm's Law and Kirchoff's Law and a study of the sources of direct current voltage potentials; fundamental concepts of alternating current flow, reactance, impedence, phase angle, power, and resonance; and an analysis of alternating current circuits.

ELC	**1113**	**Alternating Current and Direct Current Machines and Controls**	**5**	**0**	**12**	**9**

Prerequisite: ELC 1112
Study of the fundamental concepts in single and polyphase alternating current circuits, voltages, current, power measurements, transformers, and motors. Instruction is given to the use of electrical test instruments in circuit analysis. Includes a study of the basic concepts of AC and DC machines and simple system controls and an introduction to the types of controls used in small appliances, including thermostats and timers or sequencing switches.

ELC	**1114**	**Electrical Safety**	**3**	**0**	**0**	**3**

Emphasis on the use of electrical test equipment to insure job safety and to prevent shock. Appropriate first-aid techniques for treating shock victims also included.

ELC	**1124**	**Residential Wiring**	**5**	**0**	**9**	**8**

Prerequisite: DFT 1113
Study of the fundamentals of residential wiring, including blueprint reading, planning, layout, and installation of wiring in residential applications such as services, switchboard, lighting, fusing, wire sizes, branch circuits, and conduits. Also includes application of National Electric Code Regulations in actual building mockups.

ELC	**1125**	**Commercial and Industrial Wiring**	**5**	**0**	**12**	**9**

Prerequisite: ELN 1118
Layout, planning and installation of wiring systems in commercial and industrial complexes, with emphasis on blueprint reading and symbols, the related National Electrical Codes, and the application of the fundamentals of commercial and industrial wiring through practical experience in wiring, conduit preparation, and installation of simple systems.

ELECTRONICS

			Class	Lab	Clinical/Shop	Credit Hours
ELN	**100**	**Introduction to Electronics**	**3**	**2**	**0**	**4**

Introduction to electronics principles and laboratory techniques. The care and proper use of laboratory equipment is emphasized. Techniques of recording and use of laboratory data are taught.

ELN	**101**	**Electronic Instruments and Measurements**	**1**	**4**	**0**	**3**

Prerequisite: ELC 102
Study of basic electronic instruments and theories of operation, functions, tolerances, and calibration of both service and laboratory instruments. Laboratory experiences provide opportunities for application of each instrument studied.

ELN	**105**	**Control Devices**	**4**	**4**	**0**	**6**

Prerequisite: ELC 102
Study of the electrical characteristics of vacuum tubes and transistors with basic parameters and applications of each type of device to the three-terminal, two-port system emphasized.

ELN	**110**	**Fundamentals of Electricity and Electronics**	**2**	**4**	**0**	**4**

Basics of AC and DC circuits, including circuit analysis and the use of electrical components and measuring devices. Introduction of electronic devices also included.

ELN	**111**	**Electronic Components and Systems**	**2**	**2**	**0**	**3**

Introduces the basics of various electromechanical equipment and electronic devices and systems. Provides a working knowledge of selected electromechanical devices, various electronic components, circuits, and control devices.

ELN	**201**	**Microcomputer Concepts**	**2**	**2**	**0**	**3**

Introduction to the programming and operation of microcomputers. Topics include computer concepts, applications and use, operations, software, and the elements of basic programming. Emphasis on microcomputer applications for energy conservation.

ELN	**202**	**Microcomputer Hardware**	**2**	**2**	**0**	**3**

Designed to develop a basic understanding of the microcomputer components and control systems. Emphasis on the use and service of the microcomputer and its applications to energy utilization and conservation.

ELN	**205**	**Application of Vacuum Tubes and Transistors**	**5**	**6**	**0**	**8**

Prerequisite: ELN 105
Study of the practical applications of vacuum tubes and transistors to basic audio amplifiers, radio frequency amplifiers, detectors, power supplies, and oscillators.

ELN	**210**	**Semiconductor Circuit Analysis**	**5**	**4**	**0**	**7**

Prerequisite: ELN 205
Study of the analysis and design of transistor circuits. Network theorems and equivalent circuits are used extensively in evaluating total circuit performance. Device peculiari-

			Class	Lab	Clinical/Shop	Credit Hours

ties and limitations pertinent to reliable operations are considered. H. Y. Z. and T. parameters and signal flow graphs are employed.

ELN 211P Communication Circuits 4 4 0 6

Prerequisite: ELN 205
Emphasizes the principles involved in the use of components and devices studied and provides for practice in testing the components and using them in simple relationships in circuits with other units.

ELN 214 Fundamentals of Digital Electronics I 3 3 0 4

Prerequisites: ELN 105, MAT 103
Study of broadbank amplifiers, magnetic amplifiers, multivibrators, wave shaping techniques, chopper amplifiers, and clipper and clamper circuits.

ELN 215 Fundamentals of Digital Electronics II 3 3 0 4

Prerequisite: ELN 214
Study of the basic principles of pulse circuitry and nonsinusoidal generators and the application of these principles in the field of electronics. Also includes an introduction to basic logic circuitry as applied in digital computers.

ELN 220 Electronic Systems 5 4 0 7

Corequisite: ELN 215
Block diagram course: includes investigations of numerous electronic systems, using modules or blocks of curcuits already studied which have been arranged to produce complex electronic systems. The systems are explained and reduced to functions and then to block diagrams. AM, FM, and Single Sideband transmitters and receivers; multiplexing; TV transmitters and receivers; pulse modulated systems; computers; telemetry; navigational systems; and sonor and radar considered.

ELN 230 Medical Electronics 3 3 0 4

Study of transductors and electronic circuits used in biomedical systems such as electrocardiographs, heart-rate monitors, blood pressure monitors, and other medical equipment.

ELN 231 Introduction to Microcomputers 3 3 0 4

Corequisite: ELN 215 or equivalent preparation in digital electronics
Introduces the student to the fundamentals and to the hardware and software of microprocessors and microcomputers as they are used to synthesize digital circuits for instrumentation and control.

ELN 235 Industrial Instrumentation 3 3 0 4

Prerequisites: ELN 205, PHY 104
Introduction to the use of industrial electromechanical and electronic circuits and equipment. Includes methods, techniques, and skills required for installation, service, and operations of industrial control systems. An analysis of sensing devices for detecting changes in pressure, temperature, humidity, sound, light, and electricity; associated circuitry and indicating and recording devices are included.

ELN 236 Instrumentation and Controls 2 2 0 3

Study of the concepts and applications of various devices to control and monitor energy conversion systems. Special emphasis on applications for energy conservation.

			Class	Lab	Clinical/Shop	Credit Hours
ELN	**245**	**Electronic Design Project**	**0**	**4**	**0**	**2**

Prerequisite: ELN 205
Students are required to design and construct projects approved by the instructor. Includes selection of project and design, construction, and testing of the completed project. Projects may include AM and FM transmitters or receivers, amplifiers, test equipment, control devices, simple counters, lasers, or masers.

ELN	**1103**	**Introduction to Control Devices**	**5**	**0**	**12**	**9**

Introduction to vacuum tubes and semiconductors used to control direct and alternating current. Characteristics of diodes, triodes, tetrodes, pentodes, and transistors in power suppliers, voltage amplifiers, power amplifiers, and oscillators, and the advantages, disadvantages, and uses of each.

ELN	**1104**	**Application of Control Devices**	**5**	**0**	**12**	**9**

Study of vacuum tubes and semiconductor devices with characteristic curves and manufacturers' data used to determine how and why a circuit configuration behaves in a predetermined manner. The applications and uses of the different configurations and simple design characteristics of each are included.

ELN	**1105**	**Industrial Electronics and Instrumentation**	**5**	**0**	**12**	**9**

Study of electronic components and circuits used in industrial applications. Included is a study of sensory devices and detectors, the associated circuitry and indicating devices, relays, switching and monitoring circuits, and other devices applicable to the field of industrial electronics.

ELN	**1106**	**Maintenance and Analysis of Electronic Systems**	**5**	**0**	**12**	**9**

Study in the analysis and maintenance of electronic systems. Included are component troubles and their effects on circuit behavior as related to electronic systems used in private entertainment and to equipment used in business and industrial applications.

ELN	**1107**	**Communications**	**3**	**0**	**0**	**3**

Study of the history, operating principles, and methods of communication. Telephones, radio, television, telemetry, and other types of communications used in private and industrial applications are included.

ELN	**1108**	**Digital Concepts I**	**3**	**0**	**3**	**4**

Introduces study of digital computer fundamentals including binary numbers, logic circuits, arithmetic circuits, bistable circuits, registers, and memories.

ELN	**1110**	**Digital Concepts II**	**3**	**0**	**3**	**4**

Continues study of digital computer fundamentals including circuits, operations, microprocessing, and programming.

ELN	**1111**	**Electronic Trouble-shooting**	**3**	**0**	**0**	**3**

Study of electronic troubleshooting methods and procedures for radio, high fidelity stereo, tape recorders, television, cameras and video tape recorders, CB and mobile radio, electronic organs, and digital circuits. Included is the use of electronic instruments, test equipment, tools, and auxiliary items.

			Class	Lab	Clinical/Shop	Credit Hours
ELN	**1118**	**Industrial Electronics**	**3**	**0**	**6**	**5**

Prerequisite: ELC 1113
Study of basic theory, operating characteristics, and application of vacuum tubes such as diodes, triodes, pentodes and gaseous control tubes. Includes an introduction to amplifiers using triodes, power supplies using diodes, and other basic applications.

ELN	**1119**	**Industrial Electronics**	**3**	**0**	**6**	**3**

Prerequisite: ELN 1118
Study of basic industrial electronic systems such as motor controls, alarm systems, heating systems and controls, magnetic amplifier controls, welding control systems using thyratron tubes, and other basic types of systems commonly found in most industries.

ELN	**1125**	**Radio Receiver Servicing**	**5**	**0**	**0**	**5**

Study of the principles of radio reception and practices of servicing. Included are block diagram and schematics of radio receivers, servicing techniques of AM and FM receivers by resistive measurements, signal injection and signal tracing, voltage analysis, and methods of locating faulty stages and components.

ELN	**1127**	**Television Receiver Circuits and Servicing**	**10**	**0**	**15**	**15**

Study of the principles of television reception and practices of servicing. Included are block diagrams and schematics of monochrome and color television receivers, servicing techniques by resistive measurements, voltage and image analysis, and methods of locating and repairing defective components.

ENGLISH

ENG	**010**	**Reading**	**0**	**5**	**0**	**1**

Students work on reading skills according to their needs.

ENG	**011**	**Speech Communication**	**0**	**5**	**0**	**1**

Students work on oral English with emphasis on conversation, discussion, telephone use, and interviewing.

ENG	**012**	**Written Communication**	**0**	**5**	**0**	**1**

Students improve their written English through keeping a journal, writing letters, paragraphs, and essays.

ENG	**013**	**Media Evaluation**	**0**	**5**	**0**	**1**

Students study a variety of media including books, periodicals, radio, television, and film, and evaluate them in terms of their values and the intended message.

ENG	**014**	**Directed Individual Reading**	**0**	**5**	**0**	**1**

Students apply their reading skills by reading and reporting informally.

			Class	Lab	Clinical/Shop	Credit Hours
ENG	**015**	**Fundamentals of English Usage**	**0**	**5**	**0**	**1**

Designed to improve students' written English usage. Focuses on common problems in writing edited American English.

ENG	**091**	**Reading Development**	**10**	**0**	**0**	**10**

Individualized course designed to review the reading fundamentals as needed by the student.

ENG	**092**	**Reading Development**	**3**	**0**	**0**	**3**

Prerequisite: ENG 091 or equivalent
Individualized course designed to improve the student's reading achievement through a variety of materials.

ENG	**093**	**Reading Development**	**3**	**0**	**0**	**3**

Prerequisite: ENG 092 or equivalent
Individualized course designed to increase reading efficiency, with emphasis on the reading necessary in the individual's curriculum.

ENG	**094**	**Reading Development**	**3**	**0**	**0**	**3**

Prerequisite: ENG 093 or equivalent
Individualized course designed to promote the student's reading vocabulary and comprehension.

ENG	**100G**	**Basic Grammar**	**3**	**0**	**0**	**3**

Prerequisite: ENG 091 or equivalent
Designed to offer basic instruction in grammar. Subject is approached in a practical manner to lay a foundation for improvement in writing skills.

ENG	**100A**	**Basic Grammar Lab**	**0**	**2**	**0**	**1**

Designed to improve the student's skills in specifically defined areas of basic grammar. For students who score below a specified score on English Placement Test, make "I" or "F" in Basic Grammar previous quarter, or upon request.

ENG	**101**	**Grammar**	**3**	**0**	**0**	**3**

Prerequisite: ENG 091 or equivalent
Designed to aid the student in clarity of expression. Functional approach with emphasis on grammar, diction, sentence structure, and punctuation. Intended to stimulate students to apply the basic principles of English grammar in daily situations.

ENG	**101A**	**Grammar Lab**	**0**	**2**	**0**	**1**

Prerequisite: "C" or lower on ENG 100G or upon student request
Individualized course designed to improve the student's skills in specific areas of grammar.

ENG	**101S**	**Secretarial Grammar**	**5**	**0**	**0**	**5**

Prerequisite: Satisfactory placement test score or ENG 094 and/or ENG 101
Required of all beginning secretarial, medical secretarial, and general office technology students. Emphasis placed on grammar, punctuation, and spelling. Students should earn a minimum grade of 85 on this course before entering the shorthand or machine transcription classes.

			Class	Lab	Clinical/Shop	Credit Hours
ENG	**102**	**Composition**	**3**	**0**	**0**	**3**

Prerequisite: ENG 101
Corequisite: ENG 093 or equivalent
Designed to aid the student in the improvement of self expression in business and technical composition. Emphasis is on the sentence, paragraph, and whole composition.

ENG	**102A**	**Composition Lab**	**0**	**2**	**0**	**1**

Prerequisite: C or lower on ENG 101 or by student request
Individualized course designed to improve the student's writing skills.

ENG	**103**	**Report Writing**	**3**	**0**	**0**	**3**

Prerequisites: ENG 102 and at least two quarters of curriculum work
Designed to instruct students in writing for business and industry and tailored to individual curriculums wherever possible. Emphasis is on memos, various types of short reports, graphic communications, proofreading and editing, and the formal report.

ENG	**105**	**Effective Reading**	**3**	**0**	**0**	**3**

Prerequisite: Permission of instructor or completion of curriculum reading requirements.
Individualized course for students wishing to improve their reading efficiency. Areas of concentration will be selected, based on each student's needs, from rate, vocabulary, comprehension, and reading-study skills in specific subject areas.

ENG	**106**	**Spelling Techniques**	**3**	**0**	**0**	**3**

Designed to improve spelling ability. Participants study the relationship of spoken English to spelling, spelling patterns, and commonly misspelled words. They also study vocabulary in their areas of concentration such as medicine, law, or architecture.

ENG	**150**	**Composition I**	**3**	**0**	**0**	**3**

Prerequisites: Specified scores on English and reading placement tests or ENG 101 and ENG 094
Essential skills of standard written English and the application of those skills in expository and analytical writing. Essays of varying length on subjects drawn from readings in essays and short fiction.

ENG	**151**	**Composition II**	**3**	**0**	**0**	**3**

Prerequisite: ENG 150
Corequisite: LIB 150
Techniques of library reserch and the writing of research papers. Subjects for writing assignments are drawn from readings in short fiction and novels.

ENG	**152**	**Composition III**	**3**	**0**	**0**	**3**

Prerequisite: ENG 150
Readings in poetry and drama. Papers are written on subjects drawn from readings.

ENG	**204**	**Oral Communications**	**3**	**0**	**0**	**3**

Introduction to interpersonal communication to enable the student to communicate with others effectively. Focuses on the nature of the communication process, including self-perception, group interaction, and language as a symbolic process. Students make several speeches near the end of the course.

			Class	Lab	Clinical/Shop	Credit Hours
ENG	**206**	**Business Communications**	**3**	**0**	**0**	**3**

Prerequisites: BUS 102, ENG 102
Designed to develop skills in writing business communications: letters, memoranda, employment resumes, and applications.

ENG	**217**	**Children's Literature**	**3**	**0**	**0**	**3**

Designed to familiarize students with the well-known authors and illustrators of children's literature and to introduce them to the best quality books for young people. Emphasis is on the use of these materials with the children in order to obtain maximum pleasure and learning.

ENG	**250**	**British Literature I**	**3**	**0**	**0**	**3**

Prerequisites: ENG 151, 152
Study of British literature from Beowulf to the Romantic Period.

ENG	**251**	**British Literature II**	**3**	**0**	**0**	**3**

Prerequisites: ENG 151, 152
Continuation of ENG 250; study of British literature from the Romantic Period to the present.

ENG	**260**	**American Literature I**	**3**	**0**	**0**	**3**

Prerequisites: ENG 151, 152
Major works of American literature from the colonial period through World War I.

ENG	**261**	**American Literature II**	**3**	**0**	**0**	**3**

Prerequisites: ENG 151, 152
Continuation of ENG 260; major works of American literature from World War I to the present.

ENG	**270**	**Introduction to Theatre**	**3**	**2**	**0**	**4**

Introduction to theatre, including techniques of production. Stage scenery, design, set construction, stage techniques, makeup, lighting, costuming, prop construction, and theatre jargon are included.

ENG	**270L**	**Introduction to Theatre Lab**	**0**	**5**	**0**	**0**

Practical stage craft and scenery design through application of techniques learned in ENG 270.

ENG	**271**	**Basic Acting Techniques**	**3**	**2**	**0**	**4**

Prerequisite: ENG 270
Basic course in acting techniques as applied to technical theatre and stage craft production. The beginning student learns stage terminology and receives training in techniques, processes, operation, and application of play production.

ENG	**271L**	**Basic Acting Techniques Lab**	**0**	**5**	**0**	**0**

Corequisite: ENG 271
Basic acting techniques through practical application.

			Class	Lab	Clinical/Shop	Credit Hours
ENG	**272**	**Problems in Production**	**3**	**2**	**0**	**4**

Prerequisite: ENG 270
Advanced course of study in stage scenery and design with the major emphasis on special and advanced technical theatrical problems of production. Special effects, advanced lighting techniques, set construction difficulties, sound effects, and theatrical management are emphasized. Publicity and public relations are also included.

ENG	**272L**	**Problems in Production Lab**	**0**	**5**	**0**	**0**

Corequisite: ENG 272
Advanced stage design through practical application.

ENG	**273**	**Acting and Directing Techniques**	**3**	**2**	**0**	**4**

Prerequisite: ENG 271
Advanced course in acting and directing techniques. Major emphasis on play selection, community involvement, publicity, other communicative media (television, radio, motion picture). In addition, students become fully acquainted with all aspects of the financial management of the theatre.

ENG	**273L**	**Acting and Directing Techniques Lab**	**0**	**5**	**0**	**0**

Corequisite: ENG 273
Advanced acting and directing techniques through practical application.

ENG	**274**	**Advanced Directing Techniques**	**3**	**2**	**0**	**4**

Prerequisite: ENG 273
Study of drama from the director's point of view. Students assist in directing scenes and acts of short plays and in scene synopsis.

ENG	**274L**	**Advanced Directing Techniques Lab**	**0**	**5**	**0**	**0**

Corequisite: ENG 274
Advanced directing techniques through practical application.

ENG	**275**	**Playwriting Techniques**	**3**	**2**	**0**	**4**

Prerequisite: ENG 274
Study of the play as a form of creative expression; includes analysis of the play for plot, action, and character development. Each student writes and directs a one-act play.

ENG	**275L**	**Playwriting Techniques Lab**	**0**	**5**	**0**	**0**

Corequisite: ENG 275
Advanced playwriting techniques through practical application.

ENG	**1000**	**Reading Improvement**	**10**	**0**	**0**	**10**

Individualized course designed to review the reading fundamentals as needed by the student.

ENG	**1101**	**Reading Improvement**	**2**	**0**	**0**	**2**

Prerequisite: ENG 1000 or equivalent
Individualized course designed to improve students' reading skills through use of various materials.

			Class	Lab	Clinical/Shop	Credit Hours
ENG	**1102**	**Communication Skills**	**3**	**0**	**0**	**3**

Prerequisite: ENG 1101 or equivalent
Designed to improve students' communication skills in specific work situations. Learning experiences include completing job applications, job interviews, letter writing, telephone communications, technical vocabulary, and customer communications.

ENG	**1108**	**Efficient Reading**	**2**	**0**	**0**	**2**

Prerequisite: Permission of instructor or completion of curriculum reading requirements
Individualized course for students wishing to improve their reading efficiency. Areas of concentration will be selected, based on each student's needs, from rate, vocabulary, comprehension, and reading-study skills in specific areas.

ENVIRONMENT

ENV	**101**	**Environmental Orientation**	**4**	**2**	**0**	**5**

An introduction to environmental education, fields of employment and duties performed. Lectures and field trips designed to introduce the student to methods of disease transmission, municipal and industrial disposal of solid and liquid wastes, protection and treatment of water, industrial hygiene, air and noise pollution, swimming pool sanitation, and insect and rodent control.

ENV	**103**	**General Biology**	**3**	**2**	**0**	**4**

Designed to acquaint students with basic topics of modern biological study. Subjects will include: cell structure and function, tissues, organs and organ systems, energy and living organisms, digestion patterns, transport of materials in living organisms, gas exchange, origin and reproduction of life, theory of evolution, taxonomy, ecology, effects of pollution on living organisms.

ENV	**104**	**Environmental Biology**	**4**	**2**	**0**	**5**

Prerequisites: ENV 103, CHM 102
Study of living conditions in typical ambient, land-based, and aquatic environments as they relate to the pollution problem. Introduction to physical, chemical, biological, and microbiological techniques of environmental monitoring.

ENV	**105**	**Environmental Microbiology**	**2**	**4**	**0**	**4**

Prerequisites: ENV 101, 103
Isolation, identification, and classification of microorganisms (bacteria, fungi, algae, protozoa, viruses) and a study of their relationship to food production and preservation and to air, water, and food borne disease. Collection techniques and laboratory procedures for microbiological analysis of air, water, food, and soil samples.

ENV	**107**	**Water Resources Management**	**4**	**2**	**0**	**5**

Prerequisites: ENV 104, CHM 103
Presents topics concerning drinking water production, including water supply; water needs; present and future protection of surface and ground water supplies; collection, treatment, storage and distribution of water for public use; and introduction to laboratory analysis of raw and treated waters.

			Class	Lab	Clinical/ Shop	Credit Hours
ENV	**112**	**Air Resources Management**	**3**	**2**	**0**	**4**

Prerequisite: ENV 101
An introductory course to the field of air pollution technology. Air resources management is the effort to abate existing pollution and to prevent future pollution. Such a program must define the problem and determine the quality of air that is most desirable. Types of air contaminants, their source of emission, and their ill effects are identified. Source emission inventories, sampling and analysis, control techniques, meterological effects, and facets of an air pollution program are introduced.

ENV	**115**	**Environmental Physics I**	**3**	**2**	**0**	**4**

Prerequisite: MAT 101
Incorporates several topics relating to the study of physical phenomena. Special topics include: Greek alphabet, metric system, plane and solid geometry, conversion between various units, graphical portrayal and interpretation of data, and the use of calculator and algebraic techniques. Physical concepts studied are work, energy, power, behavior of gases, and basic thermodynamics, as they relate to environmental conditions and principles of conservation.

ENV	**116**	**Environmental Physics II**	**3**	**2**	**0**	**4**

Prerequisite: ENV 115
Continuation of ENV 115. Emphasis on fluid mechanics, electricity, and electronics. Fluid mechanics discussed in detail as related to environmental problems. Includes general electrical principles and various applications of electrical and electronic devices.

ENV	**118**	**Hazardous Waste Management**	**2**	**2**	**0**	**3**

Prerequisites: CHM 103, ENV 101
Discusses procedures used in the analysis, handling, storage, and treatment of solid, liquid, and gaseous hazardous wastes. Includes safety procedures, sampling and analysis, and final disposition of ignitable, corrosive, reactive, or toxic waste materials.

ENV	**195**	**Environmental Practicum**	**0**	**40**	**0**	**13**

Cooperative program supported by local industries and city, county, state, and federal agencies engaged in environmental fields to provide summer practical experience in a related area.

ENV	**200A**	**Environmental Projects**	**0**	**3**	**0**	**1**
ENV	**200B**	**Environmental Projects**	**0**	**6**	**0**	**2**
ENV	**200C**	**Environmental Projects**	**0**	**9**	**0**	**3**

Designed for students who wish to specialize or expand their knowledge in certain areas of environmental studies. Hours and course requirements to be arranged with Air and Water Technology department faculty.

ENV	**201**	**Environmental Laboratory I**	**3**	**4**	**0**	**5**

Prerequisites: ENV 107, CHM 104
Discussion and performance of several physical, chemical, biological, microbiological, and instrumentative tests performed on "clean" and "polluted" surface and ground waters. Tests performed will include: turbidity, pH, color solids, dissolved oxygen, chlorides, fluorides, hardness, heavy metals, coliform bacteria, bioassay, pesticides, detergents.

			Class	Lab	Clinical/Shop	Credit Hours
ENV	**205**	**Environmental Laboratory II**	**2**	**4**	**0**	**4**

Prerequisites: ENV 201, CHM 104
Theory and laboratory techniques pertaining to waste water treatment to include sampling and analysis: DO, BOD, COD, phosphate, solids, nitrogen compound sulfate, chloride, fluoride, volatile acids, chlorine residual, and chlorine requirements.

ENV	**212**	**Air Pollution Sources and Control**	**3**	**0**	**0**	**3**

Prerequisites: ENV 101, 112
An introduction to the major industrial processes and energy producing reactions which are potential sources of air pollution, including chemical processing, petroleum and metals production, pulp and paper, foods and feeds, and automobiles. Various types of control equipment are studied. Allows students to achieve an understanding of specific problems relating to the control of air pollution within each industry.

ENV	**217**	**Waste Water Treatment**	**3**	**2**	**0**	**4**

Prerequisites: ENV 107, CHM 103
A course presenting the liquid waste problem and methods of treatment of liquid waste: sewage composition, sewage types, decomposition, dilution, land disposal, pretreatment, flow measurements, primary treatment, aeration, biological purification, digestion, filtrations, disinfection, agricultural and industrial waste management, plant records, and laws and regulations.

ENV	**218**	**Environmental Instrumentation I**	**2**	**4**	**0**	**4**

Prerequisites: ENV 205, CHM 104
A course covering the theory and practical application of the use of an atomic absorption spectrophotometer and the specific ion analyzer in detection and analysis of water and air pollutants.

ENV	**219**	**Environmental Instrumentation II**	**2**	**4**	**0**	**4**

Prerequisites: ENV 218, CHM 104
A course in the practical application of the use of a gas chromatograph in detection and analysis of hydrocarbons in air pollution and pesticides in water pollution. Theory and familiarization with continuous monitoring equipment for capture and analysis of air pollutants will be covered. Use of this equipment will be taught when equipment becomes available.

ENV	**220A**	**Environmental Projects**	**0**	**3**	**0**	**1**
ENV	**220B**	**Environmental Projects**	**0**	**6**	**0**	**3**
ENV	**220C**	**Environmental Projects**	**0**	**9**	**0**	**3**

Designed for students who wish to specialize or expand their knowledge in certain areas of environmental studies. Hours and course requirements to be arranged with Air and Water Technology department faculty.

ENV	**226**	**Atmospheric Air Sampling and Analysis**	**2**	**6**	**0**	**5**

Prerequisites: ENV 201, CHM 104
Principles and methodology of atmospheric air sampling and analysis; practical application of gas laws to air movers and air measuring instruments; selection of sampling sites; calibration, operation and maintenance of air sampling equipment; and laboratory analysis of major air pollutants such as SO_2, NO_2, O_3, aldehydes, and acrolein. Familiarization with continuous monitoring equipment.

			Class	Lab	Clinical/ Shop	Credit Hours
ENV	**230A**	**Environmental Projects**	**0**	**3**	**0**	**1**
ENV	**230B**	**Environmental Projects**	**0**	**6**	**0**	**2**
ENV	**230C**	**Environmental Projects**	**0**	**9**	**0**	**3**

Designed for students who wish to specialize or expand their knowledge in certain areas of environmental studies. Hours and course requirements to be arranged with Air and Water Technology department faculty.

ENV	**236**	**Air Pollution Source Sampling and Analysis**	**2**	**6**	**0**	**5**

Prerequisite: ENV 212
Source sampling principles and methodology; gas laws and their practical application to measurement of gas velocities and flow rates; site selection and preparation, calibration, maintenance and operation of stack sampling equipment and mobile source sampling equipment; also, collection, measurement, and analysis of most common air pollutants such as ammonia, NOx, SOx, HC, Co, fluorides, and chlorine.

ENV	**240A**	**Environmental Projects**	**0**	**3**	**0**	**1**
ENV	**240B**	**Environmental Projects**	**0**	**6**	**0**	**2**
ENV	**240C**	**Environmental Projects**	**0**	**9**	**0**	**3**

Designed for students who wish to specialize or expand their knowledge in certain areas of environmental studies. Hours and course requirements to be arranged with Air and Water Technology department faculty.

FORESTRY

FOR	**208**	**Forest Surveying**	**2**	**0**	**3**	**3**

Relocation of old corners and lines and the legal aspects of land surveys. Forest road layout.

GEOGRAPHY

GEO	**150**	**Introduction to Geography**	**5**	**0**	**0**	**5**

Prerequisite: Specified score on reading placement test or ENG 094
Major physical and cultural elements of the environment and their influence on human activity.

HEALTH

HEA	**110**	**First Aid and Medical Terminology**	**2**	**2**	**0**	**3**

Provides students with the basic skills necessary to provide first aid in common emergencies. Instruction also includes an introduction to anatomy and basic medical terminology used in legal matters.

			Class	Lab	Clinical/Shop	Credit Hours
HEA	**150**	**Personal and Community Health**	**3**	**0**	**0**	**3**

Investigation of mental, social, and physical health problems related to man's internal and external environment in technological and leisure oriented societies. The objective is efficient and effective performance in daily living through maintenance of optimal personal and community health.

HISTORY

HIS	**096**	**Geography and Economics**	**0**	**5**	**0**	**1**

The areas of geography and economics have played key roles in the evolution of our country's history. The geography and its impact along with the economic circumstances and the interplay between the two will be discussed.

HIS	**097**	**Current Affairs**	**0**	**5**	**0**	**1**

The importance of current events in the progression of history will be discussed along with the reasons for and/or the history of major events.

HIS	**098**	**American Biography**	**0**	**5**	**0**	**1**

A study of major figures in American history and the parts they have played in the formation of our American society.

HIS	**099**	**American History**	**0**	**15**	**0**	**3**

A study of the history of the United States from the colonial period to the present.

HIS	**150**	**American History I**	**5**	**0**	**0**	**5**

Prerequisite: Specified score on reading placement test or ENG 094
History of the United States from its beginning to the end of Reconstruction.

HIS	**151**	**American History II**	**5**	**0**	**0**	**5**

Prerequisite: Specified score on reading placement test or ENG 094
History of the United States from Reconstruction to the present.

HIS	**160**	**World History to 1500**	**5**	**0**	**0**	**5**

Prerequisite: Specified score on reading placement test or ENG 094
Development of civilization from prehistory to the Reformation.

HIS	**161**	**History of Europe Since 1500**	**5**	**0**	**0**	**5**

Prerequisite: Specified score on reading placement test or ENG 094
History of the United States from its beginning to the end of Reconstruction.

HUMAN SERVICES

HSA	**100**	**Basic Health Science**	**3**	**0**	**0**	**3**

Introduction to the normal structure and functioning of the human body, briefly covering all systems. The normal body is studied as the basis for understanding variations from normal and the need to maintain homeostasis. Included within each system is pertinent information concerning hygiene, nutritional requirements, basic first aid, and medical terminology.

			Class	Lab	Clinical/Shop	Credit Hours
HSA	**102**	**Orientation Lab I**	**0**	**2**	**0**	**1**

Designed to promote professional, program, and personal identification and development. Emphasizing verbal and nonverbal interaction in interpersonal communication. Strongly recommended for all first-year Human Services Technology students.

HSA	**111**	**Introduction to Human Services**	**3**	**3**	**0**	**4**

Introduction to the history of human services and related theories and systems. Agencies, institutions, and programs which help meet human services needs are studied in broad context of social and political systems. Guest lecturers, representative of human services occupations, and field trips to agencies and institutions delivering human services offer a familiarization with the components of the delivery system.

HSA	**112**	**Group Processes I**	**1**	**3**	**0**	**2**

Introduction to interpersonal concepts and problems of communication in interpersonal transactions. Designed to allow students to become more aware of themselves and their feelings about themselves and other people with whom they come in contact. To facilitate this self-awareness and personal growth, students work in small groups, learning through analyses of their own experiences including feelings, reactions, perceptions and behavior.

HSA	**112P**	**Practicum I**	**1**	**6**	**0**	**3**

Prerequisite: Permission of instructor
Students spend six hours per week in clinical laboratory experiences under the supervision of a qualified instructor. Emphasis on the application of concepts and principles from related course content.

HSA	**113**	**Group Processes II**	**1**	**3**	**0**	**2**

Prerequisite: HSA 112 or permission of instructor
Continued study of interpersonal relationships in small group interactions. Students work in small groups during the quarter, learning through analyses of their own experiences, including feelings, reactions, perceptions, and behavior, using the framework of transactional analysis.

HSA	**113P**	**Practicum II**	**1**	**6**	**0**	**3**

Prerequisite: Permission of instructor.
Continuation of Practicum I.

HSA	**114**	**Interviewing and Counseling**	**3**	**2**	**0**	**4**

Study of purpose, structure, focus, and techniques employed in effective interviewing. Laboratory experiences providing opportunities for observation, practice, recording, and summarizing personal histories under faculty supervision. Importance of interview as client's initial encounter with system is stressed; interviewing to meet need of client rather than of system.

HSA	**115**	**Field Internship**	**1**	**39**	**0**	**14**

Work in a human services agency, institution, or program under the supervision of agency staff and college personnel. Students have an opportunity to apply and practice what has been learned in the program while learning from the professionals in the field.

			Class	Lab	Clinical/Shop	Credit Hours
HSA	**202**	**Orientation Lab II**	**0**	**2**	**0**	**1**

Continuation lab of HSA 102 for Human Services Technology students to enhance professional and personal development. Emphasis placed on verbal and nonverbal techniques to facilitate interpersonal communication. Strongly recommended for second-year Human Services Technology students.

HSA	**220**	**Activities in Human Services**	**2**	**2**	**0**	**3**

Overview of the types of activities (occupational, recreational, play, music, drama, nonverbal) utilized as therapeutic techniques with particular emphasis on the purpose of each: ways of creating and holding interest in the activity; and the role of the Human Services Associate in assisting patients to participate.

INSURANCE

INS	**214**	**General Insurance, Part I: Introduction**	**2**	**0**	**0**	**2**

Study of types of risk management concepts; examination of various types of insurance and functions of insurance companies; interpretation of laws and regulations affecting the insurance industry.

INS	**215**	**General Insurance, Part II: Life, Accident and Health Insurance**	**2**	**0**	**0**	**2**

Prerequisite: INS 214
Study of exposures, types, policy provisions and practices of life, accident, and health insurance; interpretation of regulations and laws relating to life, accident, and health agents; examination of various social insurance plans.

INS	**216**	**General Insurance, Part III: Fire, Property, and Casualty Insurance**	**2**	**0**	**0**	**2**

Prerequisite: INS 214
Study of automobile insurance, general liability exposures, and insurance for worker's compensation, commercial fire, home owner's, crime, government, fire and casualty insurance.

INDUSTRIAL SCIENCE

ISC	**102**	**Industrial Safety**	**3**	**0**	**0**	**3**

Deals with the many elements of an industry-wide safety program. Provides an in-depth treatment of job safety analysis, plant inspection, plant arrangement, housekeeping, and the maintenance and handling of materials. Special emphasis given to compliance with the new Occupational Safety and Health Act, and the paperwork procedures and processes.

ISC	**110, 120, 130**	**Readings in Industrial Management**	**1**	**0**	**0**	**1**

Designed for students who wish to specialize or expand their knowledge in industrial management under the supervision of the Industrial Management faculty. Structured to enable study of materials related to concepts in industrial management.

			Class	Lab	Clinical/Shop	Credit Hours
ISC	**201**	**Industrial Organization and Management**	**3**	**0**	**0**	**3**

Organizational structure for industrial management including operational and financial activities. Accounting, budgeting, credit and industrial risks, forecasting and markets, selection and layout of physical facilities, selection, training, and supervision of personnel as found in typical industrial organizations.

ISC	**202**	**Quality Control**	**3**	**0**	**0**	**3**

Prerequisite: MAT 101
Provides an overview of quality control activity and its scope throughout the entire business system of a company. Among the topics discussed are the elements of quality control work, the organization required to get the work accomplished, methods of measuring the effectiveness of the function, and the integration of the various quality-related activities of the organization into a quality system.

ISC	**203**	**Motion Economy**	**3**	**0**	**0**	**3**

Provides a systematic, practical, and logical treatment of motion and time study as utilized in today's business and industrial enterprise. Covers direct and indirect work and office activities and looks at the broad range of work measurement techniques. Recently developed concepts and techniques evaluated.

ISC	**204**	**Value Analysis**	**3**	**0**	**0**	**3**

Common sense approach to cost reduction. Provides students with an opportunity to review in depth the concept and techniques of value analysis and engineering. Emphasis is placed upon identifying and removing unnecessary production costs.

ISC	**205**	**Maintenance Management**	**3**	**0**	**0**	**3**

Administration, decision making, setup, and inspection of various programs such as preventive maintenance, repair parts, inventory control, and organization and functions of maintenance. Various aspects of management, engineering, resources analysis, and maintenance facilities covered.

ISC	**209**	**Plant Layout**	**4**	**0**	**0**	**4**

Provides a practical study of factory planning with emphasis on the most efficient arrangement of work areas to achieve lower manufacturing costs. Sample layouts for small and medium sized industries covered. Also, the effective use of personnel, money, machinery, and materials.

ISC	**213**	**Production Planning**	**4**	**0**	**0**	**4**

Introduces the production function of the business or industry in its daily manufacturing process. Functions reviewed are forecasting, product planning and control, scheduling, dispatching, and routing. Case histories are discussed in the classroom and courses of corrective action are developed. Actual layouts are utilized for planning and control.

ISC	**231**	**Manufacturing Processes**	**5**	**0**	**0**	**5**

Provides a basic understanding of industrial materials, machines, and processes utilized in today's manufacturing and assembling plants. Reviews the rapid development of new materials, mechanization and automation, and the complex process of manufacturing.

			Class	Lab	Clinical/ Shop	Credit Hours
ISC	**232**	**Labor Relations**	**4**	**0**	**0**	**4**

Covers the history of the labor movement in the United States with its structural and legal framework; examines the negotiation, administration, and major contents of the labor contract itself. Special studies of arbitration cases which illustrate the theories in realistic terms provided.

ISC	**1101**	**Industrial Safety**	**3**	**0**	**0**	**3**

A study of the development of industrial safety: accident occurrence and prevention; analysis of accident causes and costs; basic factors of accident control; safety education and training; accident reporting and records; employer and employee responsibility; safety organizations; first aid; mechanical safeguards; personal protective equipment use; materials handling; fire prevention and fire protection; safety codes; and accident statistics.

JOURNALISM

JOU	**150**	**Introduction to Journalism**	**3**	**0**	**0**	**3**

Basic familiarization with principles of the newspaper in categories such as basic newswriting, principles of production, layout and design, staff organization, sports writing, feature writing, editorial writing, and the purposes and functions of a newspaper.

JOU	**150L**	**Introduction to Journalism Lab**	**0**	**2**	**0**	**0**

Application of skills acquired in Introduction to Journalism.

JOU	**151**	**Essentials of Newswriting**	**3**	**0**	**0**	**3**

Analysis of the newswriting procedure, including fact gathering, style, purpose, principles, editing, and maintenance of objectivity.

JOU	**151L**	**Essentials of Newswriting Lab**	**0**	**2**	**0**	**0**

Application of skills and knowledge pertaining to newswriting.

JOU	**152**	**Newspaper Layout and Production**	**3**	**0**	**0**	**3**

Analysis of the basic principles of layout and design. Students attain a functional knowledge of the process involved in offset and letterpress lithography.

JOU	**152L**	**Newspaper Layout and Production Lab**	**0**	**2**	**0**	**0**

Application of skills and knowledge pertaining to newspaper layout and production.

JOU	**250**	**Feature Writing**	**3**	**0**	**0**	**3**

Analysis of feature writing with concentration on columns, human interest features, news features and creative journalism.

JOU	**250L**	**Feature Writing Lab**	**0**	**2**	**0**	**0**

Application of skills and knowledge pertaining to feature writing.

JOU	**251**	**Editorial Writing and Policy**	**3**	**0**	**0**	**3**

Analysis of editorial style and content with concentration on structure. Point of view, policies, and editorial liability.

			Class	Lab	Clinical/ Shop	Credit Hours
JOU	**251L**	**Editorial Writing and Policy Lab**	**0**	**2**	**0**	**0**

Application of skills and knowledge pertaining to editorial writing and policy.

JOU	**252**	**Special Topics Seminar**	**3**	**0**	**0**	**3**

Analysis of special areas of journalism including opportunities in journalism, photography, journalistic art, advertising, creative journalism, and non-newspaper journalistic media.

JOU	**252L**	**Special Topics Lab**	**0**	**2**	**0**	**0**

Application of skills and knowledge pertaining to special topics.

LEGAL EDUCATION

LEC	**203**	**Legal Research II**	**3**	**0**	**0**	**3**

Continuation of CJC 102 Legal Research I.

LEC	**204**	**Advanced Business Law**	**3**	**0**	**0**	**3**

Prerequisite: BUS 167
Analysis of basic concepts of business corporations, partnerships and joint ventures, and sole proprietorships with emphasis on drafting articles of incorporation, by-laws, minutes, resolutions, stock certificates, and partnership and joint venture agreements. Also deals with problems in business finance and acquisitions and in related areas of commercial law, stock transfer and purchase agreements, and employment contracts. Consideration of general tax and the role of the lawyer and paralegal.

LEC	**207**	**Law Office Management**	**3**	**0**	**0**	**3**

Includes the study of the organization of a law office; office forms and legal forms, filing equipment and systems; accounting systems for a lawyer's time, fees, and billing; client relations, and office procedure. Also familiarizes students with the operation of office machines and equipment.

LEC	**210**	**Real Property and Title Abstracting I**	**2**	**2**	**0**	**3**

Examination of the applicable statutory and common law principles including the form and adequate execution of documents; the functions of judgments and estates in the determination of whether a title to real estate is marketable; the study and function of various documents, indices and files on public records in various county offices. Forms of abstracting title information from public records and summaries thereof included. Various typical problems and errors which may render a title unmarketable included.

LEC	**211**	**Real Property and Title Abstracting II**	**2**	**2**	**0**	**3**

Continuation of LEC 210.

LEC	**212**	**Real Estate Transactions**	**2**	**2**	**0**	**3**

Includes the study of the preparation of simple contracts for sale of real estate, ordering title search, examining title searches and preparing simple titles, ordering title insurance, preparation of settlement sheet and holding closing, informing purchasers of

			Class	Lab	Clinical/Shop	Credit Hours

needed documents and funds, disbursement of fund and recording documents, and preparation of certificate of title for lawyer's signature. Also covers the draftings of mortgages and deeds of trust, the closing procedures of these land financing transactions, and foreclosure upon default.

LEC 218 Collection and Bankruptcy Procedure 3 0 0 3

Study covers both voluntary and involuntary bankruptcy including the wage earner plan. Collection procedures including drafting collection letters, drafting and filing complaints, default judgments, executions, supplemental proceedings, liens and judicial sales, and receiverships.

LEC 220 Family Law 3 0 0 3

Study of the rights and obligations of the marriage contract; divorce; annulment; separation by court order and by consent; defenses to divorce; child custody; adoption, name change, and bastardy proceedings; alimony, child support, Aid to Dependent Children, and welfare; North Carolina juvenile law.

LEC 224 Torts 3 0 0 3

Study of the principles behind personal injury settlements and litigation with an emphasis on North Carolina law.

LEC 229 Taxes 3 0 0 3

Application of federal and state taxes to various businesses and business conditions. Study of the following taxes: income, payroll, intangible, capital gains, sales and use, excise, and inheritance.

LEC 232 Estate Administration 3 0 0 3

Students instructed in the drawing of a will, making arrangements with the probate office for probate of will or issuance of letter of administration, preparing simple transfer of inheritance tax forms, marshaling of assets, payment of debts of estate, preparation of interim and final accounting, and preparation of refunding bonds and releases.

LEC 240 Litigation Preparation 3 0 0 3

Teaches the paralegal how a lawyer prepares briefs prior to entering court proceedings. Students taught how to review a file; prepare subpoenas ready for the lawyer's signature; prepare exhibits for court; file pleadings; and index interrogations, depositions, admissions, and pleadings. Prepares students to interview witnesses and record statements in writing and on tape.

LEC 250 Paralegal Internship 1 9 0 4

Prerequisites: Completion of majority of course work and permission of the instructor or coordinator

Students spend nine hours per week in an approved law office under the supervision of an attorney. Emphasis placed on exposing students to a variety of experiences encountered in the legal profession. The internship is an add-on elective.

			Class	Lab	Clinical/Shop	Credit Hours
LIBRARY SCIENCE						
LIB	**150**	**Library Research Skills**	**2**	**0**	**0**	**2**

Library and its resources, usually taken concurrently with ENG 151.

MASONRY

MAS	**1101**	**Bricklaying I**	**3**	**0**	**21**	**10**

History of the bricklaying industry. Clay and shell brick, mortar, laying foundations, laying bricks in a line, bonding, and tools and their uses. Laboratory work provides training in the basic manipulative skills.

MAS	**1102**	**Bricklaying II**	**3**	**0**	**21**	**10**

Prerequisite: MAS 1101
Designed to give students practice in selecting the proper mortars, layout, and construction of various building elements such as foundations, walls, chimneys, arches, and cavity walls. Proper use of bonds, expansion strips, wall ties, and caulking methods stressed.

MAS	**1103**	**Bricklaying III**	**2**	**0**	**21**	**9**

Layout and erection of reinforced grouted brick masonry lintels, fireplaces, glazed tile, panels, decorative stone, granite, marble, adhesive terra cotta, and modular masonry construction theory and techniques.

MAS	**1104**	**Bricklaying IV**	**2**	**0**	**21**	**9**

Continued application of techniques acquired in MAS 1103 with emphasis on further refining the skills of a mason.

MAS	**1113**	**Masonry Estimating I**	**1**	**0**	**3**	**2**

Prerequisite: MAS 1103
Figuring the quantities of materials needed and costs of building various components and structures. Practical course in quantity "take off" from prints of the more common type of jobs for bricklayers and masons.

MAS	**1114**	**Masonry Estimating II**	**1**	**0**	**3**	**2**

Continuation of MAS 1113 with some emphasis being given to quantity "take off" from prints of the more complicated kind.

MATHEMATICS

MAT	**099**	**Developmental Mathematics**	**5**	**0**	**0**	**5**

Course designed for students whose background in the area of mathematics is limited. Does not carry credit toward an associate degree.

MAT	**100R**	**Computational Skills**	**5**	**0**	**0**	**5**

Prerequisite: MAT 099
Whole numbers, fractions, decimals, and percents.

			Class	Lab	Clinical/Shop	Credit Hours
MAT	**100**	**Review of Fundamental Mathematics**	**5**	**0**	**0**	**5**

Prerequisite: MAT 100R
Fractions, decimals, percents, ratios, proportions, and an introduction to algebra.

MAT	**101**	**Algebra I**	**5**	**0**	**0**	**5**

Prerequisite: MAT 100
Basic algebraic operations, linear equations, factoring, algebraic fractions, graphing, systems of linear equations, exponents, and radicals.

MAT	**102**	**Trigonometry**	**5**	**0**	**0**	**5**

Prerequisite: MAT 101
The trigonometric functions, right and oblique triangles, radian measure, graphs of trigonometric functions, trigonometric identities, trigonometric equations, and inverse trigonometric functions.

MAT	**103**	**Algebra II**	**5**	**0**	**0**	**5**

Prerequisite: MAT 101
Exponentials, roots, quadratic equations, inequalities of one variable, first degree relations and functions, second degree relations and functions, systems of equations, and logarithmic functions.

MAT	**104**	**Calculus I**	**3**	**0**	**0**	**3**

Prerequisite: MAT 103
The derivative with applications and integration with applications.

MAT	**110**	**Business Mathematics**	**5**	**0**	**0**	**5**

Prerequisite: Satisfactory placement test score or MAT 100R
Stresses the fundamental operations and their application to business problems. Topics covered include banking, price marketing, invoices, simple interest, discounts, charges for credit, and pertinent uses of mathematics in the field of business.

MAT	**111**	**Computer Mathematics**	**5**	**0**	**0**	**5**

Course studies those mathematical concepts that will help EDP personnel to better understand the function of a computer and operations with a computer. Topics include number systems and arithmetic operations, sets, logic, Boolean algebra, statistics, scientific notation, and matrix algebra.

MAT	**114**	**Basic Math for Health Professions**	**2**	**0**	**0**	**2**

Develops the skills necessary to correctly compute medication dosages in the metric, apothecary, and household systems of measurements.

MAT	**150**	**College Algebra**	**5**	**0**	**0**	**5**

Prerequisites: MAT 101, and specified score on reading placement test or ENG 094
Course covers sets, algebraic operations, exponents, radicals, linear equations, quadratic equations, absolute value, inequalities, graphing, inverse functions, variations, logarithmic functions, systems of equations, systems of inequalities, polynomial functions, and the binomial theorem.

		Class	Lab	Clinical/Shop	Credit Hours
MAT 150A	**College Algebra I**	1	4	0	3

Prerequisites: MAT 101, and specified score on reading placement test or ENG 094
Course covers sets, algebraic operations, exponents, radicals, linear equations, quadratic equations, absolute value, inequalities, and graphing. MAT 150A and MAT 150B together are equivalent to MAT 150.

MAT 150B	**College Algebra II**	1	2	0	2

Prerequisite: MAT 150A
Continuation of MAT 150A. Course covers inverse functions, variation, logarithmic functions, systems of equations, systems of inequalities, polynomial functions, and the binomial theorem. MAT 150A and MAT 150B together are equivalent to MAT 150.

MAT 151	**College Trigonometry**	5	0	0	5

Prerequisite: MAT 150
An analytical and graphical study of the properties of trigonometric functions and related concepts, trigonometric identities and their applications, graphs of trigonometric functions, graphs of inverse trigonometric relations and functions, trigonometric equations, and complex numbers.

MAT 180	**Statistical Analysis I**	5	0	0	5

Prerequisite: MAT 150
Sampling of probability distributions, measures of central tendency and dispersion, hypothesis testing, Chi-square, and regression.

MAT 201	**Calculus II**	3	0	0	3

Prerequisites: MAT 102, 104
Continues MAT 104. Covers more advanced concepts of differentiation and integration. Introduces solutions of differential equations.

MAT 0099	**Developmental Mathematics**	5	0	0	5

Designed for students whose backgrounds in the area of mathematics are limited. Does not carry credit toward a diploma.

MAT 1000	**Computational Skills**	5	0	0	5

Prerequisite: MAT 0099
Whole numbers, fractions, decimals, and percents.

MAT 1101	**Fundamentals of Mathematics**	5	0	0	5

Prerequisite: MAT 1000
Fractions, decimals, percents, ratios, proportions, exponents, square roots, and evaluation of formulas.

MAT 1102	**Algebra**	5	0	0	5

Prerequisite: MAT 1101
Basic algebraic operations, linear equations, exponents, graphing, systems of equations, and radicals.

			Class	Lab	Clinical/Credit Shop	Hours
MAT	**1103**	**Basic Geometry and Trigonometry**	**5**	**0**	**0**	**5**

Prerequisite: MAT 1101
Basic definitions and properties of plane and solid geometric figures, areas of plane figures, volumes of solids, trigonometric functions of any angle, and solution of right triangles.

MAT	**1111**	**Building Trade Mathematics: Masonry**	**3**	**0**	**0**	**3**

Practical problems dealing with whole numbers, fractions, decimals, percents, and square roots as it relates to masonry materials.

MAT	**1112**	**Building Trade Mathematics**	**3**	**0**	**0**	**3**

Prerequisite: MAT 1101
Practical problems dealing with volumes, weights, ratios, mensuration, and basic estimating practices for building materials.

MAT	**1113**	**Building Trade Mathematics: Masonry**	**3**	**0**	**0**	**3**

Prerequisite: MAT 1111
Practical problems dealing with linear, square, and volume mensuration as related to masonry.

MAT	**1123**	**Machinist Mathematics**	**3**	**0**	**0**	**3**

Prerequisites: MAT 1102, 1103
Introduces gear ratio, lead screw, and indexing problems with emphasis on application to the machine shop. Practical applications and problems furnish the trainee with experience in geometric proposition and trigonometric relations to shop problems. Concludes with an introduction to compound angle problems.

MECHANICS

MEC	**101**	**Machine Processes**	**3**	**3**	**0**	**4**

Introductory course designed to acquaint students with basic hand tools, safety procedures, and machine processes of modern industry. Includes a study of measuring instruments, characteristics of metals, and cutting tools. Students become familiar with the lathe family of machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming.

MEC	**102**	**Machine Processes**	**3**	**3**	**0**	**4**

Prerequisite: MEC 101
Advanced operations on lathe, drilling, boring, and reaming machines. Milling machine theory and practice. Study of the types of milling machines, cutters, jig and fixture devices, and the accessories used in a modern industrial plant. Safety in the operational shop is stressed.

MEC	**112**	**Machine Shop Processes**	**1**	**3**	**0**	**2**

Acquaints students with the procedures of layout work and the correct use of hand and machine tools. Experiences in the fundamentals of drill press and lathe operations, hand grinding of drill bits and lathe tools, and setup work applied to the trade.

			Class	Lab	Clinical/Shop	Credit Hours
MEC	**114**	**Shop Practice**	**1**	**6**	**0**	**3**

Prerequisite: MEC 112
Designed to acquaint students with basic fundamentals of installation, maintenance, and repair of machine tools. Machine maintenance and accuracy emphasized. Slip and press fits produced to include bearing assembly. Miscellaneous hydraulic, pneumatic, and lubrication devices studied. Machine location, leveling and fastening discussed. Integration of machining and fabrication developed by related shop projects. Implementation and operation of preventive maintenance systems studied.

MEC	**210**	**Physical Metallurgy**	**3**	**3**	**0**	**4**

Introductory course in metallurgy; basic study of the properties of metals and alloys. Analysis of the structure of metals and alloys, atomic structure, nuclear structure, and nuclear reactions. Solid (crystalline) structures, methods of designating crystal planes, liquid and vapor phases, phase diagrams, and alloy systems.

MEC	**222**	**Rigging and Material Handling**	**2**	**3**	**0**	**3**

Transporting, conveying, transferring, self-loading and bulk-handling equipment introduced. Use of wire rope, slings, chains, scaffolds, and ladders investigated. Proper storage of materials covered.

MEC	**235**	**Hydraulics and Pneumatics**	**3**	**3**	**0**	**4**

Basic theories of hydraulic and pneumatic systems. Combinations of systems in various circuits. Basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, plumbing, filtration, accumulators, and reservoirs.

MEC	**270**	**Introduction to CNC Machining**	**1**	**2**	**0**	**2**

Prerequisite: MEC 102, or permission of instructor
An introduction to the set-up, operation, and programming of Numerical Control and Computer Numerical Control machine tools. Concepts, capabilities, and applications of CNC machining are to be explored. Equipment descriptions, operator controls, data input, program preparation and storage will be studied. Students will gain skills in manual parts programming, set-up and operation of CNC machines. Operator safety and machine protection will be stressed.

MEC	**271**	**Operation of Computer Numerical Control Machine Tool Equipment**	**2**	**2**	**0**	**3**

Prerequisite: MEC 270
An introduction to the set-up and operation of computer assist Numerical Control Equipment. Computer Numerical Control description, operators controls and indicators, operation in set-up, data, input, automatic operation, and tool holders will be areas of study. Safety and machine protection will be stressed at all times.

MEC	**272**	**Programming of Computer Numerical Control Machine Tool Equipment**	**2**	**2**	**0**	**3**

Prerequisite: MEC 270
An introduction to the Programming of Computer Numerical Control Equipment. Looping, macro sub-routines, drill cycle, spot facing cycle, deep hole drilling cycle, boring cycle, multihole row drilling cycle, inch dimension system, metric dimension system, facing cycle pocket milling cycle, internal hole milling cycle, and cutter diameter compensation will be areas of study. Safety and machine protection will be stressed at all times.

			Class	Lab	Clinical/Shop	Credit Hours
MEC	**298**	**Maintenance Problems I**	**2**	**3**	**0**	**3**

Broadens the experiences of students in the areas of mechanics. Problems involving various types of equipment given to demonstrate the check list method of maintenance and preventive maintenance. The use of precision measuring tools and checking for accuracy, squareness, and correct center line distances stressed for prestart inspection. Study in everyday manufacturing problems and solutions. Includes a major part of emphasis on live projects. Projects include selection by the student of the proper feeds, speeds, linkage, and controls of power transmissions, as well as bearings and gears, installation, and repair. Special emphasis on interpretation of catalog information and reference material.

MEC	**299**	**Maintenance Problems II**	**2**	**3**	**0**	**3**

Continuation and in-depth study of MEC 298.

MEC	**1101**	**Machine Shop Theory and Practice**	**3**	**0**	**12**	**7**

Introduction to the machinist trade and the potential it holds for craftsman. Deals primarily with the identification, care, and use of basic hand tools and precision measuring instruments. Elementary layout procedures of lathe, drill press, grinding (off-hand), and milling machines introduced both in theory and practice.

MEC	**1102**	**Machine Shop Theory and Practice**	**3**	**0**	**12**	**7**

Prerequisite: MEC 1101
Advanced operations in layout tools and procedures, power sawing, drill press, surface grinder, and milling machine shaper. Students introduced to the basic operations on the cylindrical grinder; projects selected encompassing all the operations, tools, and procedures thus far used and those to be stressed throughout the course.

MEC	**1103**	**Machine Shop Theory and Practice**	**3**	**0**	**12**	**7**

Prerequisite: MEC 1102
Advanced work on the engine lathe; turning, boring and threading machines; grinder; milling machines; and shapers. Introduction to basic indexing and terminology with additional processes on calculating, cutting, and measuring of spur, helical, and worm gears and wheels. Trainees use precision tools and measuring instruments such as vernier height gauges, protractors, and comparators. Basic exercises given on the turret lathe and on the tool and cutter grinder.

MEC	**1104**	**Machine Shop Theory and Practice**	**3**	**0**	**12**	**7**

Prerequisite: MEC 1103
Development of class projects using previously learned procedures in planning, blueprint reading, machine operations, final assembly inspection. Additional process on the turret lathe, tool and cutter grinder, cylindrical and surface grinder, and advanced milling machine operations. Special procedures and operations, processes, and equipment; observing safety procedures faithfully; and establishing good work habits and attitudes acceptable to the industry.

MEC	**1105**	**Machine Shop Theory and Practice**	**3**	**0**	**15**	**8**

Prerequisite: MEC 1104
Stresses the development of skills and understanding of machine precision parts. Advanced machine processes are taught using the standard machine tools as well as specialized or production equipment as applicable. Methods and procedures of checking and inspecting precision parts. Good housekeeping and safe working habits stressed at all times.

			Class	Lab	Clinical/Shop	Credit Hours
MEC	**1106**	**Machine Shop Theory and Practice**	**3**	**0**	**12**	**7**

Prerequisite: MEC 1105
Emphasis placed on production methods and on machines, including setup and operation for mass production. Instruction given on the turret lathe, milling machines, cylindrical grinders, and other production machines. Considerable attention also given to specialized equipment, such as N/C machinery, electrical discharge machines, gear hob or shaper, or others as available.

MEC	**1107**	**Jigs and Fixtures**	**2**	**0**	**6**	**4**

Develops understanding of principles and uses of jigs and fixtures. Instructions in designing and drawing simple jigs and fixtures, as well as practice in their manufacture for use on course projects. Development of confidence and pride in producing high quality parts with the use of jigs and fixtures.

MEC	**1112**	**Machine Shop Processes**	**1**	**0**	**3**	**2**

Acquaints students with the procedures of layout work and the correct use of hand and machine tools. Experiences in the fundamentals of drill press and lathe operations, hand grinding of drill bits on lathe tools, and setup work applied to the trade.

MEC	**1115**	**Metallurgy: Ferrous Metals**	**2**	**3**	**0**	**3**

Investigates the properties of ferrous metals and tests to determine their uses. Instruction includes some chemical metallurgy to provide background for the understanding of the physical changes and causes of these changes in metals. Physical metallurgy of ferrous metals, producing iron and steel, theory of alloys, shaping and forming, steel, classification of steels, and cast iron are the topics for study.

MEC	**1116**	**Metallurgy: Non-ferrous Metals**	**2**	**3**	**0**	**3**

Prerequisite: MEC 1115
Continuation of the study of physical metallurgy. Study of the non-ferrous metals; bearing metals (brass, bronze, lead), light metals (aluminum and magnesium), and copper and its alloys. Power metallurgy, titanium, zirconium, indium, and vandium included.

MEC	**1120**	**Duct Construction and Installation**	**3**	**0**	**6**	**5**

Study of the fabrication, installation, and maintenance of ducts using various materials and fittings to achieve correct air flow. Course covers safety, fabrication, tools and equipment, cutting and shaping, fasteners and fabrication practices, fans, insulation, ventilating hoods, layout methods, and development of duct systems. The student will study the installation of various duct systems and perform on-the-site modifications.

MEC	**1133**	**Electrical and Mechanical Maintenance**	**3**	**0**	**6**	**5**

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 machine installation including location leveling, and fastening are covered. The use of precision measuring tools and checking for accuracy, squareness and correct center line distances is stressed for prestart inspection.

			Class	Lab	Clinical/Shop	Credit Hours
MEC	**1134**	**Electrical and Mechanical Maintenance**	**3**	**0**	**6**	**5**

Prerequisite: MEC 1133
A study is made of those parts of the electrical code which affect the work of the industrial maintenance electrician. Practical experience is provided in wiring, installing, and connecting the various types of services for lighting, heating, and power installations. Training is provided in troubleshooting in the identification and testing of circuits and in making mechanical adjustments and related maintenance operations of various machines. Schematic diagrams showing the plan of operation for each system, electrical or mechanical, are used.

MEC	**1140**	**Hydraulics and Pneumatics Fundamentals**	**3**	**0**	**3**	**4**

Basic theories and uses of hydraulic and pneumatic systems and also the combination of systems. Basic designs and functions of circuits and motors, controls, electro-hydraulic servo-mechanisms, filtration, accumulators, and reservoirs. Installation and maintenance of the components will be made by the students.

MEC	**1147**	**Systems of Measurement and Measuring Tools**	**2**	**0**	**0**	**2**

Study of measurement and the various systems. How to use and read the various rules, scales, calipers, micrometers, and other precision measuring tools used in mechanical work. Included is the reading of the basic electrical meters used in testing.

MEC	**1170**	**Introduction to CNC Machining**	**1**	**2**	**0**	**2**

Prerequisite: MEC 1102, or permission of instructor
An introduction to the set-up, operation, and programming of Numerical Control and Computer Numerical Control machine tools. Concepts, capabilities, and applications of CNC Machining are to be explored. Equipment descriptions, operator controls, data input, program preparation and storage will be studied. Student will gain skills in manual parts programming, set-up, and operation of CNC Machines. Operator safety and machine protection will be stressed.

MEC	**1221**	**Machine Maintenance**	**2**	**0**	**3**	**3**

Fundamentals of repairing machine tools and related equipment or accessories. Emphasis on manufacture of replacement parts; alignment or adjustment of pulleys, gears, gibs, and clutches; and modification or restoration of older equipment.

MEDICAL

MED	**1100**	**Hospital Ward Secretary: Theory and Practice**	**12**	**0**	**12**	**16**

Designed to prepare qualified students to perform a variety of clerical duties such as maintaining the patient's charts, requesting equipment and services for the patient, requesting supplies and equipment for the nursing unit, and completing all forms correctly. Emphasis placed on communication techniques including communication with the patient via the nurse-patient intercom, communication with the hospital staff, physicians, and visitors, as well as telephone communications. Clinical experiences provide opportunities for applying classroom learning in the hospital setting.

	Class	Lab	Clinical/Shop	Credit Hours

MENTAL HEALTH

MHA 116 Group Processes III 1 3 0 2

Final formal group experience. Attention given to the development of the students' abilities to communicate with others as well as to facilitate communication between others.

MHA 131, 132, 133 Readings in Mental Health 0 2 0 1

Designed for students who wish to specialize or expand their knowledge in certain areas of mental health. Under the supervision of mental health faculty members, students study materials relative to concepts in mental health and write critical analyses. Time for independent study allotted, and individual conferences with the supervising instructor arranged.

MHA 201 Mental Health Care 4 3 0 5

Prerequisite: HSA 100
Orientation to the policies, procedures, and practices commonly accepted in mental health institutions; an introduction to basic patient care principles and techniques in meeting the needs of patients during observation, ambulation, and mildly mentally ill stages. Lab experiences present practice in basic patient care under the direction of a faculty member.

MHA 208 Change Agentry Lab I 0 3 0 1

A four-day human relations training lab in a retreat setting off campus. Lab staffed by qualified trainers. Students are offered practice in the interpersonal and group skills they have learned in courses in Group Processes.

MHA 209 Treatment Modalities 2 4 0 4

Analysis and application of the major approaches to psychotherapy and counseling, involving theory, characteristics, and techniques.

MHA 210 Change Agentry Lab II 0 3 0 1

Prerequisite: HSA 112 or HSA 113 or HSA 116 or permission of the instructor
A four-day human relations training lab which occurs in a retreat setting off-campus. The lab is staffed by qualified group leaders and the students are afforded an experience to practice the interpersonal and group skills they have learned in HSA 112, 113, or HSA 116.

MHA 210P Practicum III 0 6 0 2

Students placed six hours per week in an agency to obtain job experience related to course work; supervised by qualified agency personnel.

MHA 211P Practicum IV 1 6 0 3

Students assigned six hours per week in a faculty-supervised clinical situation for application of knowledge and skills from related course work.

MHA 215 Mental Health Seminar 3 0 0 3

In-depth review of current issues and trends within the field of mental health. Students expected to demonstrate the knowledge and experience gained in previous study and training in group conferences and oral reports.

		Class	Lab	Clinical/Shop	Credit Hours
MHA 215P	**Practicum V**	1	6	0	3

A continuation of MHA 211P.

		Class	Lab	Clinical/Shop	Credit Hours
MHA 225	**Crisis Intervention**	2	2	0	3

Designed to introduce students to basic theories and principles of crisis intervention from a historical as well as practical orientation. Provides students with necessary skills in crisis intervention since practical application is correlated with theory. Allows students to prepare themselves emotionally and psychologically to handle emergency crisis situations.

		Class	Lab	Clinical/Shop	Credit Hours
MHA 231, 232, 233	**Research in Mental Health**	0	2	0	1

Designed for students who wish to specialize or expand their knowledge in certain areas of mental health. Under the supervision of mental health faculty members, students investigate and study materials and data from primary and secondary sources relative to concepts in mental health and prepare reports in the style appropriate to the discipline.

MUSIC

		Class	Lab	Clinical/Shop	Credit Hours
MUS 150	**Music Appreciation**	3	0	0	3

Introduces music: its elements, forms, and stylistic features. The music of major composers is studied, with emphasis on development of aural awareness.

NURSING (A minimum grade of "C" is required for all NUR courses)

		Class	Lab	Clinical/Shop	Credit Hours
NUR 101	**Fundamentals of Nursing**	6	4	3	9

Introduces student nurse to the concept of wellness, to the patient and patient's environment, to beginning concepts of abnormal psychology, and to nurses' ethical, legal, and historical responsibilities. Emphasis on the nursing process, principles and techniques required to meet the needs of all patients, and methods of interpersonal communication. Stress on body mechanics, medical asepsis, and other supplementary nursing functions.

		Class	Lab	Clinical/Shop	Credit Hours
NUR 102	**Medical-Surgical Nursing I**	8	2	12	13

Prerequisites: BIO 150, MAT 114, NUR 101, 110
Introduces medical-surgical nursing with continuing emphasis on the nursing process. Includes causes and classification of diseases, body reactions (both physical and emotional), and pre- and post-operative care with emphasis on diseases of the blood, cardiovascular system, respiratory system, neurological system, endocrine and gastrointestinal system as related to the developmental stage of the patient. Includes pharmacologic concepts and nutritional aspects of disease process and diet therapy as related to the specific medical-surgical condition. Continuation from NUR 101 of therapeutic communication and legal, ethical, and sociological aspects of client care.

		Class	Lab	Clinical/Shop	Credit Hours
NUR 103	**Medical-Surgical Nursing II**	8	2	12	13

Prerequisites: BIO 151, NUR 102
Continuation of NUR 102 with emphasis on nursing the patient with diseases and disorders of the eye and ear, integumentary system, reproductive system, and the

			Class	Lab	Clinical/Shop	Credit Hours

musculoskeletal system. Introduces first aid, emergency situations, and concepts related to the care of patients with emotional disorders.

NUR 104 Maternal-Child Nursing I 8 0 12 12

Prerequisites: BIO 151, NUR 102
Introduces the student to maternal child nursing with emphasis on the nursing process. Maternity component presents modern aspects of normal pregnancy with brief introduction to the complications that may affect pregnancy. Pediatric component reviews growth and development of each age group and relates each to hospitalization and common pediatric illnesses and conditions. Includes nutritional, emotional, pharmacological, and legal aspects specific to pregnancy and pediatrics. Integrates nurse-patient-family relationships and communication in content and clinical experience.

NUR 110 Pharmacology 2 0 0 2

Corequisite: MAT 114
Presents sources, effects, legalities, and usage of therapeutic agents. Covers prescription of medications and nursing implications. Prepares the student to administer medications. Follows nursing process in observing, evaluating, and documenting the effects of medications.

NUR 131 Nursing Seminar 2 0 0 2

Corequisite: NUR 103, 104
Explores issues and trends within the nursing profession, ethical and legal responsibilities, roles of the RN and LPN, job opportunities for nurses, and nursing organization. Emphasis on assuming the role of the graduate practical nurse. Includes preparation for the licensing examination for practical nurses and orientation to second level nursing.

NUR 200 Transition Nursing 4 0 9 7

Prerequisites: BIO 151; LPN
Introduces the nursing process as a basis for nursing practice. Lecture, discussion, and clinical practice assist the student in making the change from LPN to RN student. Clinical experiences focus on nursing care planning for adult patients with common health problems; gives the student the opportunity to demonstrate satisfactory performance of selected nursing skills.

NUR 201 Maternal Child Nursing II 6 0 15 11

Prerequisites: BIO 152; NUR 102, 104, 131
Continuation of NUR 104. Maternity component focuses on care of complicated pregnancy, the premature, and the sick newborn with emphasis on patient and family teaching. Pediatric component follows a systems approach to pediatric health problems and offers greater depth in planning nursing care for the ill child. Includes aspects of nutrition, pharmacology, legal issues, and communication skills that specifically apply to maternal child care. Provides patient care experiences on the general pediatric and obstetrical units of the hospital and in selected community health agencies.

NUR 202 Psychiatric Nursing 4 0 9 7

Prerequisites: BIO 152; NUR 103, 104; PSY 180
A conceptual and developmental approach to the nursing process in the mental and physical care of clients both healthy and ill. Emphasis on cognizance and utilization of self as a tool in socio-psychotherapeutic interventions, development of verbal and nonverbal communication skills, formulation of therapeutic interpersonal skills, and legal-ethical issues facing the nurse in caring for the mentally ill client. Also emphasizes

			Class	Lab	Clinical/Shop	Credit Hours

knowledge and identification of personality and behavior deviation experiences by the mentally ill client and the etiology, treatment, prevention, and rehabilitation of mental illness. Includes pharmacologic and nutritional aspects of care as related to the mentally ill client.

NUR 203 Medical-Surgical Nursing III 6 0 15 11

Prerequisites: BIO 152; NUR 103, 104, 131
Corequisite: BIO 206
Continues conceptual study of the biological and emotional components frequently occurring the illness of adults. Stresses implementation of patient care by the associate degree nurse. Provides opportunity for using previous and concurrent knowledge in planning, implementing, and evaluating patient care. Emphasis on utilizing the nursing process in the care of patients with respiratory, cardiovascular, urinary, and neurological dysfunction. Includes nutrition, pharmacology, and legal aspects of nursing. Clinical learning experiences selected on the basis of meeting clinical objectives and in accordance with the student's learning needs.

NUR 204 Patient Care Management 4 0 6 6

Prerequisites: NUR 201, 203
Continues conceptual study of the biological and emotional components frequently occurring in illness of adults. Concentrates on increasing the nursing student's ability to use cognitive, affective, and psychomotor skills in managing the needs of adults exposed to the stress of more complex medical-surgical problems. Places special emphasis on therapeutic communications and group dynamics. Provides the opportunity to plan, direct, and evaluate total patient care for individuals and groups utilizing the concepts of patient care managment. Addresses problems encountered by nurses as they make the change from student to staff nurse and current trends which affect the nursing profession.

NUR 1100 Nursing Assistant Theory and Clinical Practice 9 0 21 16

Designed to prepare qualified men and women to give effective bedside nursing care to selected patients. Students are taught the role of the nurse assistant, concepts of health and illness, functional relationships within the nursing care facility, fundamentals of effective interpersonal relationships, basic nursing procedures related to the daily needs of patients, and selected special procedures. Clinical experiences in hospitals and nursing homes provide students with the opportunity to apply the techniques learned in the classroom.

NUTRITION

NUT 101 Basic Nutrition 2 0 0 2

Prerequisite or Corequisite: BIO 101 or by permission of department chairperson
The science of normal nutrition including the study of the nutrients and their function within the body and the physiological processes of digestion, absorption and metabolism. Emphasizes sources and types of food necessary for the balanced diet. Includes social, cultural, and economic factors which influence dietary needs.

NUT 102 Food for Children 3 2 0 4

Study of nutritional needs and food habits of young children through application of

			Class	Lab	Clinical/Credit Shop	Hours

research findings. Practical experience in food service management for feeding children is included as group and individual projects.

ORIENTATION

ORI	**100**	**New Student Seminar**	**1**	**0**	**0**	**1**

Acquaints the student with the physical, academic, and social environment at Pitt Community College. Covers students academic regulations, administrative procedures, study skills, student service facilities and personnel, student motivation and positive thinking, student social activities and the SGA, and career decision making.

ORI	**150**	**Orientation and Study Skills**	**1**	**0**	**0**	**1**

Provides information about the community college and its resources and assists in decision making and in developing sound study habits. Objective is to provide students with sufficient information to succeed in college.

PHYSICAL EDUCATION

PED	**150**	**Foundations in Physical Education**	**2**	**0**	**0**	**2**

Investigation of efficiency of human performance through study of variables related to total fitness, physical fitness, diet, weight control, degenerative diseases, physiological effects of exercise, and motor skills development. Oriented toward physical activity as a way of life with emphasis upon the role that physical activity should play in leisure oriented societies; includes participation in physical activities.

PED	**160**	**Adapted Activities**	**0**	**2**	**0**	**1**

Prerequisite: Permission of instructor

PED	**161**	**Archery**	**0**	**2**	**0**	**1**
PED	**162**	**Badminton**	**0**	**2**	**0**	**1**
PED	**163**	**Basketball—Elementary**	**0**	**2**	**0**	**1**
PED	**164**	**Bowling**	**0**	**2**	**0**	**1**
PED	**165**	**Conditioning**	**0**	**2**	**0**	**1**
PED	**166**	**Modern Dance—Elementary**	**0**	**2**	**0**	**1**
PED	**167**	**Modern Dance—Intermediate**	**0**	**2**	**0**	**1**
PED	**168**	**Social Dance**	**0**	**2**	**0**	**1**
PED	**169**	**Square Dance**	**0**	**2**	**0**	**1**
PED	**170**	**Field Hockey**	**0**	**2**	**0**	**1**
PED	**171**	**Golf**	**0**	**2**	**0**	**1**

			Class	Lab	Clinical/Shop	Credit Hours
PED	**172**	**Ice Skating**	**0**	**2**	**0**	**1**
PED	**173**	**Jui-Jitsu and Karate**	**0**	**2**	**0**	**1**
PED	**174**	**Lacrosse**	**0**	**2**	**0**	**1**
PED	**175**	**Recreational Activities**	**0**	**2**	**0**	**1**
PED	**176**	**Soccer—Elementary**	**0**	**2**	**0**	**1**
PED	**177**	**Softball—Elementary**	**0**	**2**	**0**	**1**
PED	**178**	**Swimming—Elementary**	**0**	**2**	**0**	**1**
PED	**179**	**Swimming—Intermediate**	**0**	**2**	**0**	**1**
PED	**180**	**Tennis—Elementary**	**0**	**2**	**0**	**1**
PED	**181**	**Tennis—Advanced**	**0**	**2**	**0**	**1**
PED	**182**	**Track and Field**	**0**	**2**	**0**	**1**
PED	**183**	**Volleyball**	**0**	**2**	**0**	**1**
PED	**184**	**Wrestling**	**0**	**2**	**0**	**1**
PED	**196**	**Aerobic Exercise**	**0**	**2**	**0**	**1**

A total fitness program designed to improve strength, endurance, flexibility, agility, and cardiovascular endurance. Points out why people today have a particular need for aerobic exercise. Explains the medical, physical, emotional, and cosmetic benefits of the program. Instructor will make specific suggestions for specific needs.

PHILOSOPHY

PHI	**150**	**Introduction to Philosophy**	**5**	**0**	**0**	**5**

Prerequisite: ENG 094 or equivalent
Introduction to the study of philosophy through the examination of major philosophical problems.

PHOTOGRAPHY

PHO	**116**	**Photography**	**2**	**4**	**0**	**4**

Introduction to the field of photography, photographic equipment, and materials. 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.

			Class	Lab	Clinical/Shop	Credit Hours
PHO	**217**	**Photography**	**2**	**4**	**0**	**4**

Prerequisite: PHO 116
Advanced photographic techniques and materials. Participation in studio and laboratory procedures illustrating the various applications and creative possibilities of photography in advertising.

PHO	**218**	**Special Problems in Photography**	**2**	**4**	**0**	**4**

Students pursue approved special interest problems under the guidance and supervision of the instructor.

PHO	**219**	**Special Problems in Photography**	**2**	**4**	**0**	**4**

Students pursue approved special interest problems under the guidance and supervision of the instructor.

PHO	**220**	**Special Problems in Photography**	**2**	**4**	**0**	**4**

Students pursue approved special interest problems under the guidance and supervision of the instructor.

PHYSICS

PHY	**101**	**Technical Physics**	**4**	**2**	**0**	**5**

Corequisite: MAT 102
Fundamental course covering several basic principles of physics. Typical topics include systems of measurement, Newton's laws of motion, energy, equilibrium conditions, and statics.

PHY	**102**	**Technical Physics**	**4**	**2**	**0**	**5**

Prerequisites: MAT 102, PHY 101
Continues PHY 101. Typical topics include momentum, elasticity, circular motion, simple machines, thermal properties of matter, and heat and thermodynamics.

PHY	**103**	**Technical Physics**	**4**	**2**	**0**	**5**

Prerequisites: MAT 102, PHY 101
Continuation of PHY 102 with specific attention given to topics related to architecture. Acoustics, light and illumination, and electricity are typical topics covered.

PHY	**104**	**Technical Physics**	**3**	**2**	**0**	**4**

Prerequisite: MAT 102, PHY 101
Continues PHY 102 with specific attention given to topics related to electronics. Includes rotary motion, simple harmonic motion, sound, circuits, and selected topics in electricity and magnetism.

PHY	**107**	**Radiologic Physics**	**3**	**2**	**0**	**4**

Corequisite: MAT 101
A course covering the basic physics principles applicable to radiology. Typical topics include systems of measurement, work, energy, power, wave motion, electromagnetic spectrum, electricity, and magnetism.

			Class	Lab	Clinical/Shop	Credit Hours
PHY	**108**	**Physics for Respiratory Therapists**	**3**	**2**	**0**	**4**

Corequisite: MAT 101
A course covering the basic physics principles applicable to respiratory therapy. Typical topics include systems of measurement, work, energy, power, hydraulics, hydrostatics, gases, heat, and electricity.

PHY	**120**	**Introduction to the Metric System**	**3**	**0**	**0**	**3**

Involves familiarization with metric units and usage, conversions to and from the British Engineering System of units, and basic algebraic solutions for the unknown as applied to problems involving units.

PHY	**260**	**Physics and the Environment I**	**3**	**2**	**0**	**4**

Prerequisite: ENG 094 or equivalent
A conceptual physics course that relates some of the basic principles of physics to their uses and consequences in our world and lives. Major topics include motion, properties of matter, heat, and sound. This is a science course designed primarily for nonscience majors, hence the use of mathematics is deemphasized, being used occasionally to avoid wordiness in communicating a concept. Laboratory experiences are designed to reinforce the concepts discussed in class.

PHY	**261**	**Physics and the Environment II**	**3**	**2**	**0**	**4**

Prerequisite: PHY 260
A continuation of PHY 260 dealing with electricity and magnetism, light, atomic physics, and nuclear physics. Concepts are again emphasized, and mathematical computations used only occasionally.

PHY	**262**	**Solar Influences and Applications**	**3**	**2**	**0**	**4**

Prerequisite: MAT 101; PHY 260
A non-calculus introductory course to the basic physics of how the sun physically influences the earth, and how this solar energy can be converted to other useful forms of energy. Particular attention is given to residential applications.

PHY	**1101**	**Applied Science**	**3**	**2**	**0**	**4**

Prerequisite: MAT 1101
Introduction to physical principles. Core topics include systems of measurement, properties of matter, solids and their characteristics, work, energy, power, and simple machines. Additional specialized topics for the various curricula are basic properties of liquids, gases, heating and refrigeration, and electricity.

PHY	**1103**	**Principles of Electricity**	**3**	**2**	**0**	**4**

Prerequisite: MAT 1101
Study of the electron theory, Ohm's Law, series and parallel circuits, AC and DC circuits, magnetism, and batteries as applied to the automobile ignition system.

			Class	Lab	Clinical/Shop	Credit Hours
PLUMBING						
PLU	**1110**	**Plumbing Pipework**	**3**	**0**	**9**	**6**

This course will introduce students to the tools, fittings, and small equipment used by plumbers. Most of the time will be spent in the shop where the student can learn how to handle these materials correctly. The student will perform operations such as threading, cutting, caulking, and sweating of the various kinds of pipe and tubing used in the trade.

POWER MECHANICS

PME 1010 Air Conditioning **2 0 3 3**

Basic principles of air conditioning and the special application of these principles to farm equipment. Maintenance, troubleshooting, and repair stressed.

PME 1030 Electrical Systems in Farm Equipment **3 0 3 4**

Basic study of the electrical systems found in farm equipment. Special emphasis given to batteries, starters, generators, alternators, and ignition and lighting systems. Identification of trouble, servicing, and repair as applicable to electrical systems stressed.

PME 1040 Farm Harvesting Equipment **3 0 6 5**

General maintenance and repair of harvesting equipment. Self-propelled grain combines and automatic tobacco harvestors given special attention in the classroom and in the field.

PME 1045 Farm Equipment Servicing **3 0 12 7**

Prerequisite: Permission of instructor

Gives student experience in troubleshooting and repair of gasoline and diesel engines, power trains, and fuel systems associated with farm equipment. Provides opportunity to learn the operating principles of self-propelled and tractor drawn equipment and field experience in how to adjust field equipment. May substitute for part-credit in COE 101D.

PME 1046 Shop Practices and Tool Operations **3 0 6 5**

Gives students experience in operating procedures of shop tools and the correct use of hand tools, cutting tools, and testing equipment. Gives opportunity to learn operation of shop tools such as drill press, valve grinders, and hand grinders and to cut threads with the tap and die sets and to operate test equipment for checking tractor components.

PME 1050 New Tractor and Equipment Setup **1 0 3 2**

Initial preparation of new tractors and equipment for customer delivery; unloading, assembling, and delivery of the tractor or equipment.

PME 1100 Engine Shop Practice **0 0 3 1**

Prerequisite: PME 1101

Designed for students who need additional shop time in order to achieve the objectives of PME 1101.

			Class	Lab	Clinical/Shop	Credit Hours
PME	**1101**	**Internal Combustion Engine: Gasoline and Diesel**	**5**	**0**	**12**	**9**

Development of a thorough knowledge of 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 gasoline and diesel engines. Testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, and cooling systems; proper lubrication; and methods of testing, diagnosing, and repairing.

PME	**1102**	**Electrical Systems**	**5**	**0**	**12**	**9**

Theory and operation of ignition, cranking, charging, lights, and accessories systems. The laboratory used to demonstrate various test equipment and electrical checks; students spend much lab time learning to use various pieces of auto electrical test equipment.

PME	**1104**	**Fuel Systems: Gasoline and Diesel**	**5**	**0**	**9**	**8**

Designed to give students a solid background in the theory and operation of carburetors, fuel pumps, and the newer emission control devices; a working knowledge of the auto and diesel fuel systems. In laboratory training periods students disassemble various carburetors, perform tests, and adjust to specifications. All test equipment demonstrated to and used by students.

PME	**1105**	**Fundamentals of Diesel Engines**	**5**	**0**	**6**	**7**

Development of a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Study of the construction and operation of components of internal combustion engines. Testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, and cooling systems; lubrication; and methods of testing, diagnosing, and repairing diesel engines.

PME	**1106**	**Fundamentals of Diesel Engines**	**1**	**0**	**6**	**3**

Prerequisite: PME 1105
Continuation of practical application of principles introduced in PME 1105.

PME	**1112**	**Foreign Car Fuel Systems**	**2**	**0**	**0**	**2**

Thorough study of the fuel systems of foreign cars, including the carburetor, fuel pump, and fuel accessories.

PME	**1123**	**Brakes, Chassis, and Suspension**	**3**	**0**	**9**	**6**

Complete study of various braking systems employed on automobiles and lightweight trucks; emphasis on operation, proper adjustments, and repair. Servicing of power brakes emphasized. Principles and functions of the components of the automotive chasis. Practical job instruction in adjusting and repairing of suspension systems.

PME	**1124**	**Power Trains**	**3**	**0**	**9**	**6**

Comprehensive study of the principles of functions of the automotive power train. Includes study of the clutch, conventional transmission, drive shaft, and the rear axle assembly. Identification of trouble, servicing problems, and repair of the power train system covered.

			Class	Lab	Clinical/Credit Shop	Hours
PME	**1125**	**Auto Servicing**	**3**	**0**	**9**	**6**

Prerequisites: PME 1102, 1123, AHR 1101
Emphasis on the shop procedures necessary in trouble-shooting the various component systems of the automobile. Troubleshooting of automotive systems provides a full range of experiences in testing, adjusting, repairing, and replacing components. Close simulation to an actual automotive shop situation will be maintained.

PME	**1126**	**Small Engine Repair**	**1**	**0**	**3**	**2**

Four-cycle air-cooled engines, ignition, fueling, cooling and lubrication systems. Maintenance and repair emphasized both in theory and practice.

PME	**1135**	**Basic Fuel Systems: Gasoline and Diesel**	**3**	**0**	**3**	**4**

Thorough study of the fundamentals of gasoline and diesel fuel systems. Lectures on carburetors and diesel principles and functions of components. Laboratory practice in application of service, repair, and diagnosis procedures. Assembly removal and replacement.

PME	**1136**	**Fundamental Hydraulics**	**2**	**0**	**6**	**4**

Fundamental hydraulics and its use to transmit power. Study of components and their function; pumps, lines, cylinders, valves, gauges, and controls. Systems servicing, test points, testing, and adjusting. Proper care, use, installation, and storage of test equipment. Minor repairs, assembly removal, and replacement.

PME	**1137**	**Basic Power Transmission**	**4**	**0**	**6**	**6**

Basic fundamentals, function, and operation of major components used to transmit power on heavy equipment. Clutches, transmissions, planetary gearing, torque converters, final drives, differentials, and brakes. Servicing, testing, minor adjustment, assembly removal, and replacement.

PME	**1184**	**Practicum**	**0**	**0**	**39**	**13**

Shop experiences under the supervision of a qualified shop foreman. Emphasis on the application of automotive servicing concepts and principles related to course content.

PME	**1202**	**Electricity/Electronics**	**3**	**0**	**9**	**6**

Thorough study of theory and operation of individual automotive electrical units. Analysis and repair of all automotive electrical components. To supplement the engine electrical course for first year students and help them develop a knowledge of transistor circuits and their application to conventional electrical components and circuitry.

PME	**1204**	**Emission Controls**	**5**	**0**	**6**	**7**

In-depth coverage of the operation of the P.C.V. System, exhaust emission control systems, evaporative emission control systems, and scheduled maintenance operations. All test equipment involved in diagnosing emission control problems is used by students.

PME	**1210**	**Auto Engine Electronics**	**1**	**2**	**0**	**2**

Through the use of films, lectures, and demonstrations, covers the purposes and functions of the solid-state logic systems and micro-computer used to accurately control carburetion, timing, and emission control. Ample time for hands on experience will be provided.

			Class	Lab	Clinical/Shop	Credit Hours
PME	**1224**	**Automatic Transmissions**	**5**	**0**	**12**	**9**

Prerequisite: PME 1124
Automatic transmissions; instruction includes classroom study, demonstrations, and student participation in disassembly, reassembly and testing of selected transmissions. Special emphasis is placed on principles, function, construction, operation, servicing, and trouble-shooting procedures and repair of various types of automatic transmissions.

PME	**1227**	**Power Accessories**	**2**	**0**	**6**	**4**

Designed to acquaint students with the operation, service, and repair of power operated seats, windows, tops, windshield wipers, and radio antennas. Course should insure the development of students' abilities to understand and trace out the circuits of the electrical accessories and enhance skills in diagnosing trouble and repairing damaged circuits. Application of knowledge in drawing and reading schematic diagrams of electrical circuits.

PME	**1230**	**Auto Service Excellence Test Review**	**5**	**0**	**0**	**5**

Complete review of all the eight tests given to auto mechanics for certification by the National Institute for Automotive Service Excellence. Particular attention given to test taking techniques.

POLITICAL SCIENCE

POL	**102**	**National Government**	**3**	**0**	**0**	**3**

English and colonial background, the Articles of Confederation, and the framing of the Federal Constitution. The nature of the Federal union, states rights, Federal power, political parties. The general organization and functioning of the national government.

POL	**103**	**State and Local Goverment**	**3**	**0**	**0**	**3**

A study of state and local government, state-Federal interrelationships, and the functions and prerogatives of the branches. Problems of administration, legal procedures, law enforcement, police power, taxation, and revenues and appropriations. Special attention given to North Carolina.

POL	**150**	**Introduction to U.S. Government**	**5**	**0**	**0**	**5**

Prerequisite: Specified score on reading placement test or ENG 094
American national government with emphasis on its origins, development, structure, and functions.

POLICE SCIENCE

PSC	**102**	**Criminology**	**3**	**0**	**0**	**3**

Survey of the historical and contemporary theories associated with the underlying causes of criminal behavior.

PSC	**103**	**Penology**	**3**	**0**	**0**	**3**

Study of the historical development of the U.S. prison systems and survey of contemporary methods employed by the North Carolina Youth Development Commission, Parole Board, Probation Commission and the Corrections Department.

			Class	Lab	Clinical/Shop	Credit Hours
PSC	**110**	**Juvenile Delinquency**	**5**	**0**	**0**	**5**

Study of the factors contributing to juvenile delinquency and evaluation of the methods employed in delinquency control. Special attention given to the role of juvenile agencies and to the legal procedures utilized in dealing with offenders.

PSC	**201**	**Patrol Procedures**	**4**	**2**	**0**	**5**

Overview of techniques and procedures employed in routine patrol and traffic control.

PSC	**202**	**Police-Community Relations**	**2**	**0**	**0**	**2**

Study of the need for good community relations and the methodology employed in achieving these objectives by criminal justice agencies.

PSC	**213**	**Identification Techniques**	**3**	**2**	**0**	**4**

Survey of contemporary identification techniques with primary emphasis on fingerprinting. Students develop skills in taking and classifying rolled impressions and in developing latent lifts through lab practice.

PSC	**240**	**Firearms and Defensive Tactics**	**2**	**2**	**0**	**3**

Prerequisites: Admission to a Criminal Justice program and permission of instructor or coordinator

Designed to develop respect for the needs, use, and legal liabilities associated with all firearms. Range practice provided with emphasis on the service revolver. Instruction also given in use of non-lethal weapons and in defensive tactics as used in handling arrested persons.

PSYCHOLOGY

PSY	**101**	**Introduction to Psychology**	**5**	**0**	**0**	**5**

Overview of the general characteristics of human behavior, including motivation, learning, perception, emotion, and intelligence, with emphasis on the application of scientific methods of psychological investigation and on the biological basis of behavior and experience. Special emphasis placed on behavior disorders and mental retardation in an attempt to help students apply the content of this course to job responsibilities.

PSY	**102**	**General Psychology**	**3**	**0**	**0**	**3**

A general survey of psychology: The scientific method, learning development, psychopathology, social psychology, mental health, intelligence, and personality will be topics for discussion. Practical application of information to self and others will be stressed.

PSY	**102H**	**General Psychology (Health Related Professions)**	**3**	**0**	**0**	**3**

A general survey of psychology: The scientific method, learning development, psychopathology, social psychology, mental health, intelligence, and personality will be topics for discussion. Practical application of information to self and others will be stressed. Emphasis will be towards applying information to the health services professions.

			Class	Lab	Clinical/Shop	Credit Hours
PSY	**103**	**Adolescent Psychology**	**3**	**0**	**0**	**3**

Prerequisite: PSY 102
Study of the nature and source of the problems of adolescents in western culture. The physical, emotional, social, intellectual, and personality development of adolescents.

PSY	**104**	**Human Relations**	**3**	**0**	**0**	**3**

A study of methods of communication and the practitioners' understanding of themselves and others. The practitioner-patient relationship is stressed. Topics include therapeutic communication, death and dying, suicide, assertiveness training, and reduction of stress in one's own life.

PSY	**115**	**Child Growth and Development: Prenatal-Early Childhood**	**3**	**0**	**0**	**3**

Study of the developmental sequence of the prenatal, infant, and early childhood periods. Emphasis given to the factors influencing development and the importance of experiences in establishing patterns of behavior, attitudes, and interpersonal skills.

PSY	**116**	**Child Growth and Development: Middle Childhood-Adolescence**	**3**	**0**	**0**	**3**

Detailed study of the developmental sequences during middle childhood and adolescence; including the environmental and social factors which influence developmental rates, the formulation of behavior, and establishment of value systems and interests.

PSY	**120**	**Human Growth and Development**	**3**	**0**	**0**	**3**

Prerequisite: PSY 102H or PSY 150 or permission of department chairperson
Basic principles of physical, cognitive, and psychosocial development of the individual from conception to death—the human life span. Emphasis also placed on the detection of abnormal developmental patterns from observations and on conveying this information to significant others.

PSY	**150**	**General Psychology I**	**4**	**0**	**0**	**4**

Prerequisite: Specified score on reading placement test or ENG 094
Survey of fundamental principles of human behavior. Includes personality, learning, development, motivation, intelligence, scientific method, psychopathology, and social psychology.

PSY	**151**	**General Psychology II**	**3**	**0**	**0**	**3**

Prerequisite: Specified score on reading placement test or ENG 094
Second half of survey of psychology. Includes physiological psychology, sensation, perception, and altered states of consciousness: sleep, thinking, memory, motivation, emotion, stress, and sexuality.

PSY	**160**	**Psychology of Memory and Learning**	**5**	**0**	**0**	**5**

Prerequisites: PSY 150, 151 or permission of instructor
A survey of the basic research and methods, beginning theory, and general principles of learning. This will include the topics of forgetting and memory storage and retrieval.

PSY	**170**	**Child Psychology**	**5**	**0**	**0**	**5**

Prerequisites: PSY 150, 151 or permission of instructor
The study of the growth and development of children from conception through adolescence with emphasis on the pre-pubescent child.

			Class	Lab	Clinical/Shop	Credit Hours
PSY	**180**	**Abnormal Psychology**	**3**	**0**	**0**	**3**

Prerequisite: PSY 150
Study of the behavior, assessment, treatment approaches, and causal factors involved in the various classifications of maladaptive behavior.

PSY	**206**	**Applied Psychology**	**3**	**0**	**0**	**3**

Study of the psychological principles that help in understanding interpersonal relations in daily life. Attention given to personal and group dynamics so that students may apply the principles of mental hygiene to adjustment problems as students, workers, and members of the general community. Applications of psychological principles studied in relation to handling crisis situations dealing with stress, changing habits, and functioning in family life.

PSY	**211**	**Behavior Disorders**	**5**	**0**	**0**	**5**

Prerequisite: PSY 101 or PSY 150
Study of general patterns of abnormal behavior with emphasis on biological and environmental causal factors and human coping mechanisms.

PSY	**221**	**Learning and Behavior**	**3**	**4**	**0**	**5**

Prerequisite: PSY 150
Introduction to the basic learning principles and concepts required to explain the acquisition and maintenance of behavior. Emphasis placed on positive and negative reinforcement, punishment, extinction, shaping, fading, chaining, recording, and charting behavior. Self-modification conducted by each student.

PSY	**222**	**Exceptionality**	**5**	**0**	**0**	**5**

General concepts of intellectual, sensorial, motor, speech, and social variability among individuals.

PSY	**225**	**Tests and Measurements**	**3**	**0**	**0**	**3**

Prerequisite: PSY 150
Study of the principles of psychological testing, general intelligence tests, differential testing of abilities, and measurement of personality traits.

PSY	**228**	**Abnormal Psychology**	**3**	**0**	**0**	**3**

Provides instruction in mental hygiene, in the underlying causes of drug addiction and alcoholism, and in recognizing and dealing with abnormal individuals.

PSY	**230**	**Psychology and Physiology of Aging**	**3**	**0**	**0**	**3**

Survey course intended to develop awareness of the inevitability of aging as part of the normal life cycle. Surveys the physical, psychological, and social changes occurring in late middle age and old age with emphasis on the care and treatment of the aged in our society.

PSY	**1101**	**Human Relations**	**3**	**0**	**0**	**3**

Study of basic principles of human behavior. Problems of the individual studied in relation to society, group membership, and relationships within the work situation.

RADIOLOGIC TECHNOLOGY

			Class	Lab	Clinical/Shop	Credit Hours
RDT	**101**	**Radiologic Technology I**	**4**	**2**	**0**	**5**

Orientation to the field of radiologic technology, including darkroom chemistry and film processing, the basic principles of radiologic exposure, elementary patient care procedures, introduction to medical terminology, and introduction to radiographic as applied to those systems covered under BIO 107.

RDT	**102**	**Radiologic Technology II**	**4**	**2**	**0**	**5**

Prerequisites: RDT 101, BIO 107
A study of principles and basic radiographic technique. The radiographic lab will be used extensively for practical demonstrations.

RDT	**103**	**Radiologic Technology III**	**4**	**2**	**0**	**5**

Prerequisites: RDT 102, BIO 108
Techniques for basic views of the systems taught under BIO 108, such as soft tissue radiography and fluoroscopy, and preparation of the patient and contrast media for these studies.

RDT	**111**	**Radiographic Positioning**	**4**	**2**	**0**	**5**

Education in a radiographic laboratory including processing of radiographs, practice in ethical and attitudinal situations during patient contact. Covers patient care and basic positioning for studies of upper and lower extremities, shoulder and pelvic girdles, introduction to thoracic and abdominal viscera, and preparation of the patient for studies, and performance of examinations of the urinary system.

RDT	**112**	**Clinical Education**	**1**	**0**	**15**	**6**

Prerequisite: RDT 111
Education in a clinical setting; students continue to improve basic skills in darkroom technique and patient positioning for routine studies taught under BIO 107 and RDT 101. Practice of techniques for roentgenographic studies of the systems studied under BIO 108. Regular sessions of film critiques.

RDT	**113**	**Clinical Education**	**0**	**0**	**24**	**8**

Prerequisite: RDT 112
Education in a clinical setting with emphasis on the preparation and use of contrast media, preparation of the patient for such studies and the performance of examinations of the digestive tract, biliary tract, and urinary tract using contrast media. Students gain experience in fluoroscopic procedure and also make radiographs of the abdominal and thoracic viscera without the use of contrast media. Soft tissue radiography (exclusive of mammography) and location of foreign bodies touched upon. Regular film critique sessions.

RDT	**114**	**Clinical Education**	**0**	**0**	**27**	**9**

Prerequisites: RDT 103, 113
Student spends the entire quarter gaining clinical education and developing skill in the techniques of those procedures covered during the first three quarters. Regular film critique sessions.

		Class	Lab	Clinical/Shop	Credit Hours
RDT 201	**Topographic Anatomy**	**2**	**0**	**0**	**2**

Prerequisites: BIO 107, 108
Review of anatomy from the standpoint of topographic anatomy and the relationship of organs to each other. Stress is upon the location of each organ using surface landmarks and relation of the organ to other organs within the same anatomic regions.

RDT 204	**Radiologic Technology IV**	**4**	**2**	**0**	**5**

Prerequisite: RDT 103
Continuation of the radiologic technology series; radiation protection, equipment maintenance, and trouble-shooting, more advanced work in the radiography of the skeleton and the art of pediatric radiology included. Special views and techniques for diagnostic radiology of the skeleton emphasized.

RDT 205	**Radiologic Technology V**	**4**	**2**	**0**	**5**

Prerequisite: RDT 204
Special radiographic procedures. Areas to be covered include photo fluorography; bronchography, mammography, sialography, pelvimetry, and vascular procedures. Emphasis directed toward all requirements necessary for performing these procedures, including equipment and methodology utilized.

RDT 208	**Radiologic Technology VII**	**6**	**0**	**0**	**6**

Prerequisite: RDT 217
Devoted to a complete review of all subject matter covered during program. Emphasis on discussion of knowledge obtained during rotation through minor affiliates.

RDT 210	**Pathology**	**3**	**0**	**0**	**3**

Prerequisite: BIO 108
Detailed study of various diseases with emphasis on the ones most commonly seen in the radiology department. Radiographic appearance of the disease and the effect on radiographic exposure required for accurate visualization will be dealt with in depth.

RDT 215	**Clinical Education**	**1**	**0**	**33**	**12**

Prerequisite: RDT 114
Education in clinical area; radiography of the skeleton, the thoracic and abdominal viscera, and examination of the abdominal viscera using contrast media and fluoroscopy. Emphasis placed on ability to do pediatric radiography and views for radiography of the skeleton.

RDT 216	**Clinical Education**	**0**	**0**	**24**	**8**

Prerequisite: RDT 215
Emphasis placed on ability to assist and perform procedures studied in RDT 205. Students required to show proficiency in all of these areas.

RDT 217	**Clinical Education**	**0**	**0**	**30**	**10**

Prerequisite: RDT 216
Students rotate for a two-week period through each minor affiliate, the Nuclear Medicine Department at the major affiliate, and the special procedures area at the major affiliate to gain knowledge in specialized procedures, nuclear medicine, radiation therapy, and advanced imaging modalities.

			Class	Lab	Clinical/Shop	Credit Hours
RDT	**218**	**Clinical Education**	**0**	**0**	**27**	**9**

Prerequisite: RDT 217
Students complete rotation through minor affiliates and specialized areas in major affiliates.

RDT	**219**	**Review of Radiologic Technology**	**3**	**0**	**0**	**3**

Systematic approach to the review of fundamental radiologic technology theory designed to facilitate the preparation of the graduate radiologic technlogist for the written examination. Students encouraged to participate in group discussions, and thus share knowledge, information, and clinical experiences, thereby broadening their base of knowledge.

RELIGION

REL	**150**	**Introduction to Religion**	**5**	**0**	**0**	**5**

Prerequisite: Specified score on reading placement test or ENG 094
Survey of the major religions of the world: Judaism, Zoroastrian religion, Christianity, Islam, Hinduism, Buddhism, Sikkhism, Jainism, Confucianism, Taoism, and Shinto.

REL	**160**	**Introduction to Old Testament Literature**	**5**	**0**	**0**	**5**

Study of the Old Testament, with consideration of relevant cultures, history, and major personalities.

REL	**161**	**Introduction to New Testament**	**5**	**0**	**0**	**5**

Study of the New Testament, focusing on the major teachings of Jesus, the major teachings of the apostle Paul, and the later writings. Special attention paid to the various books' similarities and dissimilarities; to the historical, cultural and religious background; and to the compilation of the New Testament.

REAL ESTATE

RLS	**101**	**Fundamentals of Real Estate: Salesman**	**6**	**0**	**0**	**6**

This course consists of instruction in fundamental real estate principles and practices, including real estate law, financing, brokerage, closing, valuation, management, and taxation. Also included is instruction on residential building construction, land use, the real estate market and the North Carolina Real Estate License Law and Rules/Regulations of the North Carolina Real Estate Licensing Board.

RLS	**102**	**Fundamentals of Real Estate: Real Estate Law**	**3**	**0**	**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 the law of agency, real estate contracts, landlord and tenant law, mortgages/deeds of trust, property insurance, federal income taxation of real estate, the N.C. Real Estate License Law, Rules/Regulations of the N.C. Real Estate Licensing Board, and the Licensing Board's "Trust Account Guidelines."

			Class	Lab	Clinical/Shop	Credit Hours
RLS	**103**	**Fundamentals of Real Estate: Real Estate Finance**	**3**	**0**	**0**	**3**

This course consists of advanced-level instruction on the major aspects of financing real estate transactions, including sources of mortgage funds, the secondary mortgage market, financing instruments, types of mortgage loans, underwriting mortgage loans, consumer legislation affecting real estate financing, real property valuation, closing real estate sales transactions and finance mathematics.

RLS	**104**	**Fundamentals of Real Estate: Real Estate Broker**	**3**	**0**	**0**	**3**

Consists of advanced-level instruction with emphasis on real estate brokerage.

RESPIRATORY THERAPY

RTH	**101**	**Respiratory Therapy I**	**3**	**2**	**0**	**4**

Corequisites: BIO 107, PHY 108, MAT 101
A study of professional ethics, professional organizations, and the history of respiratory therapy. Covers the physical properties of gas and piping systems and gas storage, safety standards, and regulation of pressure and flow. Introduces medical terminology and basic cardiopulmonary resuscitation by AHA Standards.

RTH	**102**	**Respiratory Therapy II**	**3**	**2**	**0**	**4**

Prerequisite: RTH 101
Corequisites: BIO 108, CHM 110, RTH 103
Covers the theory of and techniques for administration of oxygen and aerosol therapy. Includes the properties and production of therapeutic vapor and aerosols, 0_2 devices, analyzers, blenders, artificial airways, and manual ventilation equipment. Students will demonstrate and practice with this equipment during laboratory periods.

RTH	**103**	**Clinical Practice I**	**0**	**0**	**9**	**3**

Prerequisite: RTH 101
Corequisite: RTH 102
Introduces students to the clinical affiliate hospitals. Introduces the basic organization and operation of the respiratory therapy services and the physical facilities of the clinical affiliates. Also provides an introduction to the basic aspects of patient care in the hospital environment with the opportunity to observe patient care and practice prepatient contact skills.

RTH	**104**	**Cardiopulmonary Anatomy and Physiology**	**3**	**0**	**0**	**3**

Prerequisite: RTH 102
Corequisites: RTH 105, 106
An advanced study of anatomy and physiology of the respiratory and circulatory systems. Emphasis on the interrelationship of structure and function, including mechanics of respiration, ventilation, tissue metabolism, O_2 transport, and CO_2 elimination.

			Class	Lab	Clinical/Shop	Credit Hours
RTH	**105**	**Pharmacology**	**3**	**0**	**0**	**3**

Prerequisite: RTH 102
Corequisites: RTH 104, 106
Presents the student with those medications commonly used in cardiopulmonary diseases and respiratory therapy. Presents an indepth approach, stressing those medications which effect the nervous, cardiovascular, respiratory, and excretory systems. Covers correct medication usage, administration, and legalities.

RTH	**106**	**Clinical Practice II**	**0**	**4**	**12**	**6**

Prerequisite: RTH 102
Corequisites: RTH 104, 105
Presents the first student responsibility for patient care. Includes student evaluation for competence in application of basic therapeutic modalities. Also includes in this evaluation process tasks covering patient reporting, medical record documentation, patient assessment, and equipment decontamination.

RTH	**107**	**Acid Base Chemistry**	**3**	**0**	**0**	**3**

Prerequisite: RTH 106
Corequisites: RTH 108, 109, 110
A specialized course designed to provide indepth study of acid base regulation, blood gas values, ABG clinical interpretation, and fluid-electrolyte balance.

RTH	**108**	**Continuous Mechanical Ventilation I**	**3**	**2**	**0**	**4**

Prerequisite: RTH 106
Corequisites: RTH 107, 109, 110
Introduces student to ventilators and monitoring devices. Stresses procedures and techniques, indications and contra-indications, and classification and function of these devices. Laboratory periods include student skills evaluation for assembly, calibration, and functional use of these devices.

RTH	**109**	**Clinical Practice III**	**0**	**0**	**15**	**5**

Prerequisite: RTH 106
Corequisites: RTH 107, 108, 110
Introduces students to patients requiring mechanical ventilatory support and intensive respiratory care. Presents practice and evaluation of clinical skills required for implementing continuous ventilation, ventilator monitoring, weaning, patient airway maintenance, and arterial blood gas sample collection at the hospital clinical affiliates.

RTH	**110**	**Pathology**	**4**	**0**	**0**	**4**

Prerequisite: RTH 106
Corequisites: RTH 107, 108, 109
A study of the etiology and pathogenesis of cardiovascular and respiratory diseases. Presents clinical signs and symptoms along with diagnosis and complications.

RTH	**201**	**Continuous Mechanical Ventilation II**	**2**	**2**	**0**	**3**

Prerequisite: RTH 108
Corequisites: BIO 206, RTH 202, 203
A continuation of procedures and theory relating to mechanical ventilation emphasizing interpretation and application of physiological monitoring, weaning, and arterial blood gas.

			Class	Lab	Clinical/Shop	Credit Hours
RTH	**202**	**Clinical Practice IV**	**0**	**0**	**18**	**6**

Prerequisite: RTH 109
Corequisites: BIO 206, RTH 201, 203
Refines the student's mastery of those skills and techniques critical to acute patient care as introduced in RTH 109. Also involves the student with pediatric and neonatal therapy including rotations through general and intensive care units.

RTH	**203**	**Perinatology and Pediatrics**	**2**	**2**	**0**	**3**

Prerequisite: RTH 110
Corequisites: BIO 206, RTH 201, 202
Introduces student to pediatric and neonatal respiratory therapy skills, techniques and procedures, and equipment. Emphasis on embryologic development and the treatment required by premature infants.

RTH	**204**	**Pediatric Pathophysiology**	**3**	**0**	**0**	**3**

Prerequisite: RTH 203
Corequisites: RTH 205, 206
A study of genetic, iatrogenic, and disease induced pathology as seen in both the neonatal and pediatric patients. Covers treatment and prognosis.

RTH	**205**	**Cardiopulmonary Function**	**3**	**2**	**0**	**4**

Prerequisite: RTH 202
Corequisites: RTH 204, 206
Presents student with a study of techniques and procedures for pulmonary and cardiovascular function testing. Laboratory periods require students to examine and demonstrate the clinical equipment used for these diagnostic procedures.

RTH	**206**	**Clinical Practice V**	**0**	**0**	**15**	**5**

Prerequisite: RTH 202
Corequisites: RTH 204, 205
Introduces the practice and application of pulmonary and cardiovascular function testing in the clinical affiliate specialty laboratory. Also continues and refines those neonatal/pediatric respiratory therapy skills presented in RTH 202.

RTH	**207**	**Clinical Practice VI**	**0**	**0**	**24**	**8**

Prerequisite: RTH 206
Corequisite: RTH 208
A clinical rotation course designed to augment transition from the student role to the role of a therapist practicing in the work environment. Although the students remain under clinic supervision, they will be expected to function in an independent manner while carrying a case load equivalent to that of the working environment. Additionally, as is possible, offers specialty rotations in clinical areas including: physical therapy, out-patient clinics, management and supervision, and education.

RTH	**208**	**Respiratory Therapy Seminar**	**3**	**0**	**0**	**3**

Prerequisite: RTH 206
Corequisite: RTH 207
Introduces styles of respiratory therapy management and departmental structure. Additionally, reviews the legal aspects associated with patient care and instructor level education in cardiopulmonary resuscitation. The student will be expected to do special research on respiratory therapy related topics which are presented in written format.

SOCIOLOGY

		Class	Lab	Clinical/Shop	Credit Hours
SOC 101	**Introduction to Sociology**	5	0	0	5

Presents the scientific study of human behavior in relation with others, the general principles affecting the organization of such relationships, and the effects of social life on human personality and behavior. Emphasis is placed on the principles of sociology relating to societies in general and particularly American society, cultures, social institutions, groups, and organizations, the class system, social change, and social processes.

SOC 102	**Principles of Sociology**	3	0	0	3

Study of the principles of sociology; attempts to provide an understanding of culture, collective behavior, community life, social institutions, and social change. Presents the scientific study of human behavior in relation with others, the general principles affecting the organization of such relationships, and the effects of social life on human personality and behavior.

SOC 102H	**Principles of Sociology (Health Professions)**	3	0	0	3

A study in the principles of sociology, attempting to provide an understanding of culture, collective behavior, community life, social institutions, and social change. Presents the scientific study of human behavior in relation with others, the general principles affecting the organization of such relationships, and the effects of social life on human personality and behavior. Throughout the course, principles and concepts are related to the health professions.

SOC 103	**Social Problems**	3	0	0	3

A study of the social problems prevalent in contemporary society with emphasis on the nature of, origins of, and solutions to these problems.

SOC 150	**Sociology I**	5	0	0	5

Prerequisite: Specified score on reading placement test or ENG 094
Nature, concepts, and principles of sociology. Presents the scientific study of human behavior in relation to others, the general principles affecting the organization of such relationships, and the effects of social life on human personality and behavior. Special attention paid to modern industrial societies in general and American society in particular. Includes society, culture, socialization, groups, institutions and organizations, the class system, social change, and social processes.

SOC 160	**Courtship and Marriage**	5	0	0	5

A course which introduces students to critical thinking and empirical knowledge relative to affectional involvement, the family, and the roles and relationships associated with each.

SOC 170	**Modern Social Problems**	5	0	0	5

Prerequisite: SOC 150 or permission of instructor
An in-depth study of current social problems in American society. Emphasis to be placed not only on the nature, extent, causes, and consequences of these problems but also the proposed solutions or means of limiting these problems.

			Class	Lab	Clinical/Shop	Credit Hours
SOC	**221**	**Family**	**3**	**0**	**0**	**3**

Study of the origin and development of the family as a social institution with emphasis on courtship, marriage, parenthood, family relationships, and problems of the contemporary American family.

SPEECH

SPH	**150**	**Voice and Diction**	**3**	**0**	**0**	**3**

Improvement of articulation and pronunciation through drills, readings, and the delivery of simple speeches.

SPH	**160**	**Public Speaking**	**3**	**0**	**0**	**3**

Composition, preparation, and presentation of speeches for all occasions.

SOCIAL SCIENCE

SSC	**101**	**Introduction to Social Sciences**	**3**	**0**	**0**	**3**

Integrated course in the social sciences, drawing from the fields of sociology, psychology, economics, and political science, introducing the student to the methods of social science and to the basic concepts used by social scientists to explain the functioning of the human world.

SURGICAL

SUR	**1102**	**Orientation to Surgical Technology**	**4**	**0**	**0**	**4**

Presents the purpose of the program. Stresses operating room organization and relationships with other hospital departments. Includes transportation, positioning, ethical, and legal responsibilities. Introduces skills in patient care, vital signs, and catheterization. Prepares students for experience in emergency, recovery, and delivery room.

SUR	**1103**	**Medical Surgical Terminology**	**3**	**0**	**0**	**3**

Introduces the structure of medical terms and words. Emphasizes commonly used prefixes, suffixes, root words, and combining forms. Relates terminology to body structure, disease, and surgical intervention.

SUR	**1114**	**Principles and Practices of Operating Room Techniques**	**4**	**10**	**0**	**9**

Introduction to the method of the preoperative surgical hand scrub, historical development of the surgical scrub, gowning, and gloving; aseptic techniques and the development of a "sterile consciousness"; types of drapes, proper handling of drapes, and the importance of proper draping. Various types, sizes, and uses of sutures; and different types, parts, and uses of needles used for suturing tissue. Types and uses of drains; types of basic instruments; and the classifications, uses, manufacture, and care of instruments. Study of specific responsibilities of the circulating and scrubbed personnel in routine and special procedures. Provides experience in both laboratory and hospital settings.

			Class	Lab	Clinical/Credit Shop	Hours
SUR	**1115**	**Pharmacology for Operating Room**	**2**	**0**	**0**	**2**

Familiarizes students with the drugs and agents used in surgery and during surgical procedures. Also deals with the basic mathematics and measurements needed to handle drugs in a surgical situation.

SUR	**1116**	**Surgical Procedures and Clinical Practice I**	**8**	**0**	**15**	**13**

Introduction to the various types of incisions used in performing surgery. Relationship between supplies and equipment in the preparation for surgery. Regional anatomy of the operative site. Introduction to surgical procedures including instruments; general surgery; and general abdominal, gynecological, obstetrical, thoracic, genitourinary, and orthopedic surgery. Provides hospital clinical experience applying all principles with rotations in set-up areas, work rooms and delivery and emergency rooms. Beginning scrub experience.

SUR	**1127**	**Surgical Procedures and Clinical Practice II**	**8**	**0**	**18**	**14**

Relationship between supplies and equipment in the preparation for surgery. Regional anatomy of the operative site. Introduction to surgical procedures including eye, ear, nose, throat, plastic, neurosurgery, and cardiovascular. Pediatric and geriatric surgery; diagnostic procedures; radiation therapy; plaster casts; treatment of burns; and special instruments and equipment. Clinical rotation with more advanced scrubbing experience.

SUR	**1128**	**Surgical Specialties and Clinical Practice III**	**4**	**0**	**21**	**11**

Continuation of SUR 1127 with emphasis on advanced surgical procedures. Also includes case studies and seminars. Provides mostly clinical applications with operating room call experience.

SUR	**1130**	**Review of Surgical Technology**	**3**	**0**	**0**	**3**

Complete review of all subject matter covered in the Surgical Technology program in preparation for taking the national certifying exam.

WELDING

WLD	**120**	**Oxyacetylene Welding**	**2**	**0**	**3**	**3**

Introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, and assembly of units. Welding procedures such as practice in puddling and carrying the puddle; running flat beads; butt welding in the flat, vertical, and overhead position; brazing; and hard and soft soldering. Safety procedures are stressed throughout the program of instruction in the use of tools and equipment. Students perform mechanical testing and inspection to determine quality of the welds.

WLD	**121**	**Arc Welding**	**2**	**0**	**6**	**4**

Operation of AC transformers and DC motor generator arc welding units. Studies made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After students are capable of running beads, they make butt and fillet welds in all positions, and test them in order to detect weaknesses in welding. Safety procedures are emphasized through the course in the use of tools and equipment.

			Class	Lab	Clinical/Shop	Credit Hours
WLD	**122**	**Commercial and Industrial Practice**	**2**	**0**	**3**	**3**

Prerequisites: WLD 120, 121
Designed to build skills through practices in simulated and actual industrial processes and techniques. Sketching and layout on paper of the size and shape description, listing the steps necessary to build the product, estimating time and material, and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding, and nondestructive tests and inspection.

WLD 1102 Basic Gas Welding **0 0 3 1**

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

WLD 1103 Basic Arc Welding **0 0 3 1**

Welding demonstrations by the instructor and practice by students in the use of the arc welding process to fabricate steel. Welded joints are discussed and welded in various positions. Care and maintenance of the arc welder are applied in this course.

WLD 1104 Beginning Welding I **2 0 3 3**

Introduction to the history of oxacetylene and arc welding, the principles of welding and cutting, nomenclature of the equipment and assembly of unit. The operations of various AC transformers, AC and DC rectifiers, and DC motor generator arc welding units are introduced. Basic welding procedures are begun, WLD 1104, 1105, and 1106 series is equivalent to the WLD 1141 and will substitute.

WLD 1105 Beginning Welding II **1 0 6 4**

Prerequisite: WLD 1104
Continues the nomenclature and safe use of welding equipment and supplies. Welding procedures such as practice of puddling and carrying the puddle, running flatbeads, butt welding in the flat, vertical and overhead positions. WLD 1104, 1105 and 1106 series is equivalent to WLD 1141 and will substitute.

WLD 1106 Beginning Welding III **1 0 6 4**

Prerequisite: WLD 1105
Continues all the topics introduced in WLD 1104 and WLD 1105. Straight line cutting skills are developed. Safety is stressed. WLD 1104, 1105 and 1106 series is equivalent to WLD 1141 and will substitute.

WLD 1107 Intermediate Welding I **3 0 3 4**

A review of basic oxyacetylene cutting and welding, preparation of metals, types of joints, welding procedures and testing welds and the operation of AC transformer and DC motor generator arc welding machines. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. WLD 1107, 1108, and 1109 series is equivalent to and will substitute for WLD 1142.

WLD 1108 Intermediate Welding II **1 0 6 3**

Prerequisites: WLD 1104, 1105, 1106, 1107
Continues the topics introduced in WLD 1107. Demonstrated competence in running beads permits student to do butt and fillet welds in all positions for testing in order that

		Class	Lab	Clinical/Shop	Credit Hours

the student may detect weaknesses in welding. Safety procedures are stressed. WLD 1107, 1108, and 1109 series is equivalent to and will substitute for WLD 1142.

WLD 1109 Intermediate Welding III 1 0 6 3

Continues topics of WLD 1107 and WLD 1108. Closely supervised practice enables students to acquire competence for progressing to next course. WLD 1107, 1108, and 1109 series is equivalent to and will substitute for WLD 1142.

WLD 1110 Commercial and Industrial Practice I 1 0 6 3

Prerequisites: WLD 1104, 1105, 1106, 1107, 1108, 1109 or equivalents
Designed to build skills through practice in simulated and actual industrial processes and techniques. Sketching and layout on paper of the size and shape description listing the procedure steps necessary to build the product and estimating time and material and then following these directions to build the product. WLD 1110 and 1111 series is equivalent to and will substitute for WLD 1122.

WLD 1111 Commercial and Industrial Practice II 2 0 3 3

Prerequisites: WLD 1104, 1105, 1106, 1107, 1108, 1109, 1110 or equivalents
Continues processes begun in WLD 1110. Emphasis placed on maintenance, repairing worn or broken parts by special welding applications and field welding and nondestructive tests and inspection. Safety is stressed. WLD 1110 and WLD 1111 series is equivalent to and will substitute to WLD 1122.

WLD 1112 Mechanical Testing and Inspection 1 0 3 2

Prerequisites: WLD 1141, 1142 or WLD 1120, 1121
Standard methods for mechanical testing of welds. Students are introduced to the various types of tests and testing procedures and perform the details of the test which give adequate information as to the quality of the weld. Types of tests covered are destructive and nondestructive.

WLD 1113 Pipe Welding I 1 0 6 3

Prerequisites: WLD 1104, 1105, 1106, 1107, 1108, 1109
Designed to provide practice in the welding of pressure piping in the horizontal, vertical, and horizontal fixed position using shielded metal arc welding processes according to sections VIII and IX of the A.S.M.E. code. Safety is stressed. WLD 1113 and WLD 1114 series is equivalent to and will substitute for WLD 1124.

WLD 1114 Pipe Welding II 1 0 6 3

Prerequisites: WLD 1104, 1105, 1106, 1107, 1108, 1109
Continues all the processes introduced in WLD 1113. WLD 1113 and WLD 1114 series is equivalent to and will substitute for WLD 1124.

WLD 1120 Oxyacetylene Welding and Cutting 3 0 12 7

Introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, and assembly of units. Welding procedures such as practice of puddling and carrying the puddle; running flat beads; butt welding in the flat, vertical, and overhead position; brazing; and hard and soft soldering. Safety procedures are stressed throughout the program of instruction in the use of tools and equipment. Students perform mechanical testing and inspection to determine quality of the welds.

			Class	Lab	Clinical/Shop	Credit Hours
WLD	**1121**	**Arc Welding**	**3**	**0**	**12**	**7**

Operation of AC transformers and DC motor generator arc welding units. Studies made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After students are capable of running beads, they make butt and fillet welds in all positions, and test them in order to detect weaknesses in welding. Safety procedures are emphasized through the course in the use of tools and equipment.

WLD	**1122**	**Commercial and Industrial Practices**	**3**	**0**	**9**	**6**

Prerequisites: WLD 1141, 1142, or WLD 1120, 1121
Designed to build skills through practices in simulated industrial processes and techniques; and sketching and laying out on paper the size and shape, description, listing the steps necessary to build the product, and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding, and nondestructive tests and inspection.

WLD	**1123**	**Inert Gas Welding**	**1**	**0**	**3**	**2**

Prerequisites: WLD 1141, 1142 or WLD 1120, 1121
Introduction to and practical operations in inert-gas-shield arc welding. Study made of equipment, operation, safety, and practice in the various positions. Thorough study of such topics as principles of operation, shielding gases, filler rods, process variations and applications, and manual and automatic welding.

WLD	**1124**	**Pipe Welding**	**3**	**0**	**12**	**7**

Prerequisite: WLD 1121 or WLD 1142
Designed to provide practice in the welding of pressure piping in the horizontal, vertical, and horizontal fixed position using shielded metal arc welding processes according to Sections VIII and IX of the AMSE code.

WLD	**1125**	**Certification Practices**	**3**	**0**	**6**	**5**

Prerequisites: WLD 1120, 1121 or WLD 1123, 1124, 1141, 1142
Practice in welding the various materials to meet certification standards. Students use various tests including the guided bend and the tensile strength tests to check the quality of work. Emphasis placed on attaining skill in producing quality welds.

WLD	**1129**	**Basic Gas and Electric Welding**	**2**	**0**	**6**	**4**

Various processes used for joining materials by welding discussed. Lecture, demonstrations, and practice cover the oxyacetylene and arc welding processes, filler metals used, gases, currents, and weldability of metals. Instruction is given in the setup and safe operation of oxyacetylene and arc welding apparatus. Students prepare joints both by hand and by machine cutting with the oxyacetylene torch.

WLD	**1138**	**Certification Practices I**	**2**	**0**	**3**	**3**

Prerequisites: WLD 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111, 1112, 1113, 1114, 1123
Course involves practices in welding the various materials to meet certification standards. Student uses various tests including the guided bend and the tensile strength tests to check the quality of his work. Emphasis is placed on attaining skills in producing quality welds. WLD 1138, 1139 series is equivalent to and will substitute for WLD 1125.

		Class	Lab	Clinical/Shop	Credit Hours
WLD 1139	**Certification Practices II**	1	0	3	2

Prerequisites: WLD 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111, 1112, 1113, 1114, 1123, 1138

Continues the practices introduced in WLD 1138. Emphasis is placed on attaining skills in producing quality welds. WLD 1138 and 1139 are equivalent to and will substitute for WLD 1125.

WLD 1141	**Beginning Welding**	5	0	15	10

Introduction to the history of oxyacetylene and arc welding, the principles of welding and cutting, nomenclature of the equipment, and assembly of unit. Operation of various AC transformers, AC and DC rectifiers, and DC motor generator arc welding units. Welding procedures such as practice of puddling and carrying the puddle; running flat beads, butt welding in the flat, vertical and overhead positions; and the cutting of straight lines with the torch. Safety procedures are stressed throughout the program of instruction.

WLD 1142	**Intermediate Welding**	5	0	15	10

Review of basic oxyacetylene cutting and welding; preparation of metals, types of joints, welding procedures, and testing of welds. Operation of AC transformers and DC motor generator arc welding machines. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After students are capable of running beads, they make butt and fillet welds in all positions and test them to detect weaknesses in welding. Safety procedures are emphasized throughout the course.

STUDENT PARKING

7

1. WHITE BLDG.

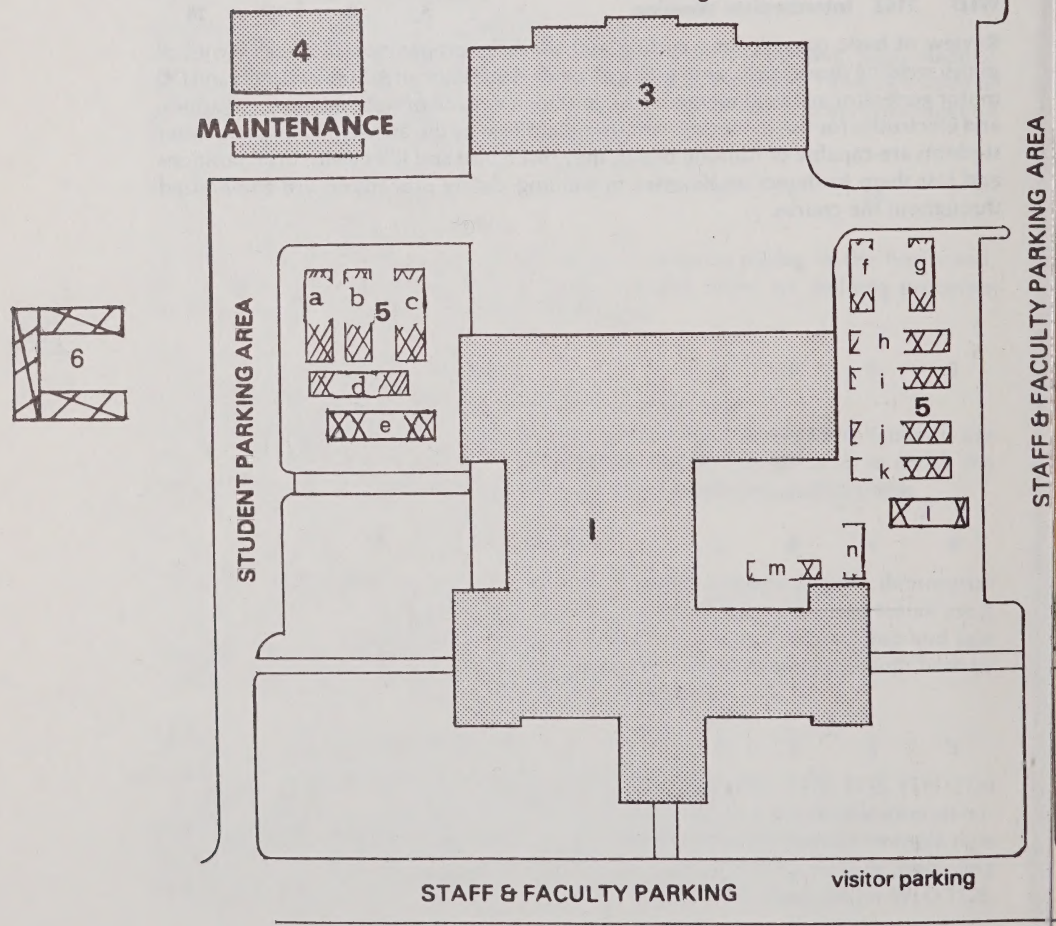
a. all administrative offices
b. student personnel
c. cooperative education
d. electronic servicing
e. architectural drafting
f. learning center
g. bookstore
h. lounge
i. nursing
j. elc. data proc.
k. machinist
l. auto mechanics
m. radiology
n. surgical

2. HUMBER BLDG.

a. air & water
b. business
c. police science
d. paralegal
e. agriculture
f. related
g. college trans.
h. library
i. continuing education

3. WHICHARD BLDG.

a. commercial art
b. human services
c. teacher assistant
d. carpentry
e. electrical inst.
f. heating, ref., air
g. auto mech.



'O LOCATIONS

4. METAL BLDG.

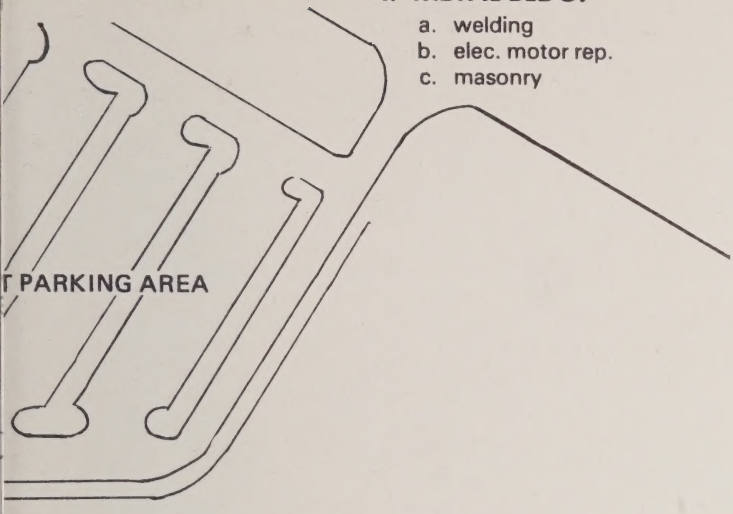
a. welding
b. elec. motor rep.
c. masonry

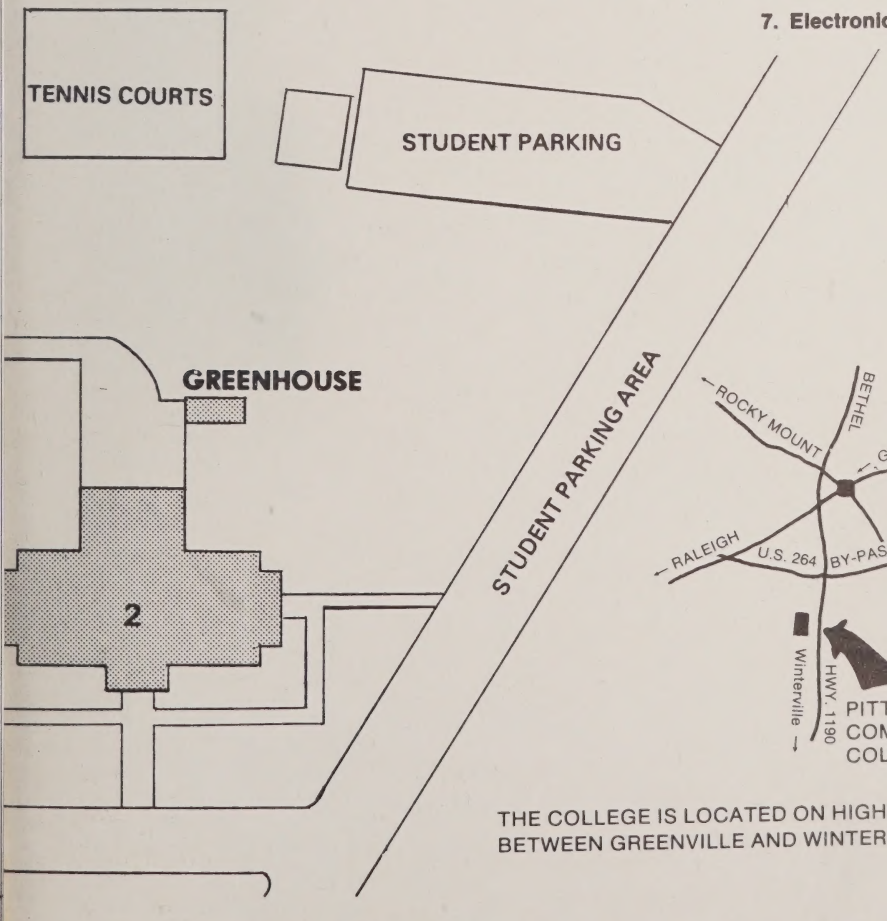
5. MOBILE UNITS

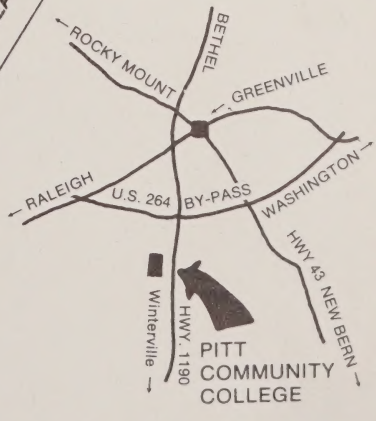
a. Classrooms
b. Classrooms
c. Classrooms
d. Classrooms
e. Student Govt. Assn.
f. Offices
g. Rad. Tech.
h. HRD
i. Trio. Lab/Career Center
j. Trio Office
k. Personnel/Offices
l. Offices
m. Institutional Research
n. Offices

6. Nursing Department

7. Electronics Technology







THE COLLEGE IS LOCATED ON HIGHWAY 11, SOUTH, BETWEEN GREENVILLE AND WINTERVILLE

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