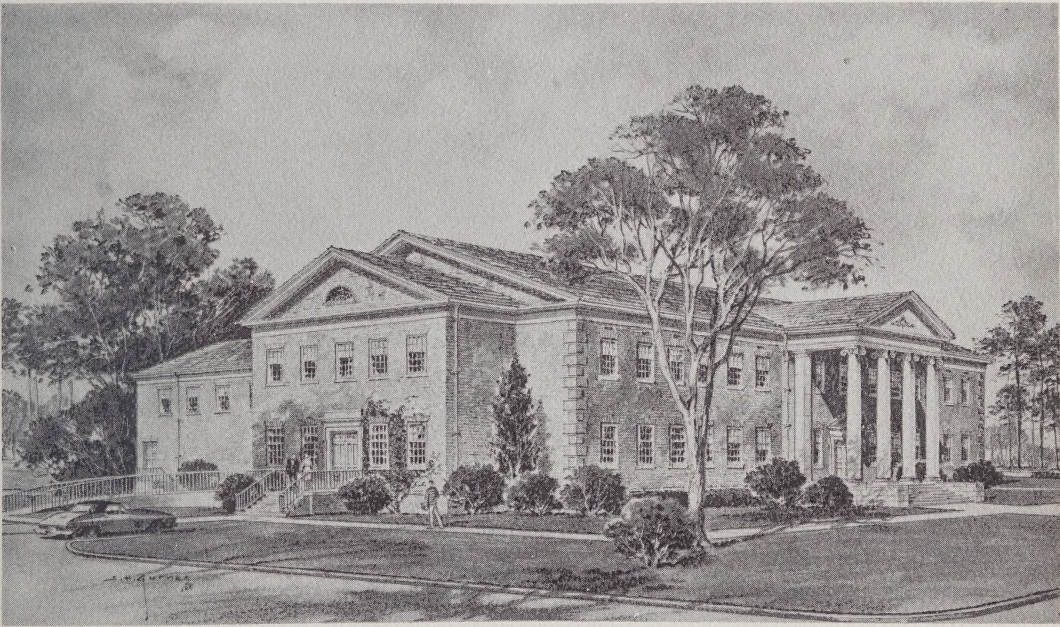


ARC 11 CAT  
1974-1976  
v. VII  
Copy 3

**T**

# **TECHNICAL INSTITUTE**



***GREENVILLE, N.C.***

**GENERAL CATALOG**

**LEARNING RESOURCES CENTER 1974-1976**

**ARCHIVES**

Pitt Community College  
Greenville, North Carolina

Pitt Technical Institute publishes this catalog for the purpose of providing students and other interested persons with information about the Institute and its programs. The provisions of the catalog are not to be regarded as an irrevocable contract between student/s and Pitt Technical Institute. The Institute 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 might create for students.

Students having questions not answered in this publication may secure additional information from The Dean of Students, Pitt Technical Institute, P.O. Drawer 7007, Greenville, North Carolina 27834.  
Telephone 756-3130



# **PITT TECHNICAL INSTITUTE**

**GREENVILLE  
NORTH CAROLINA**

Recognized and Approved By  
North Carolina State Board of Education  
North Carolina Department of Community Colleges  
Division of Vocational Rehabilitation  
Veterans Administration

Member of  
American Association of Community and Junior Colleges  
North Carolina Department of Community Colleges  
Student Services Personnel Association  
Association of Occupational Curriculum Directors  
North Carolina Commission for the Blind

Accredited By

**Southern Association of Colleges and Schools**

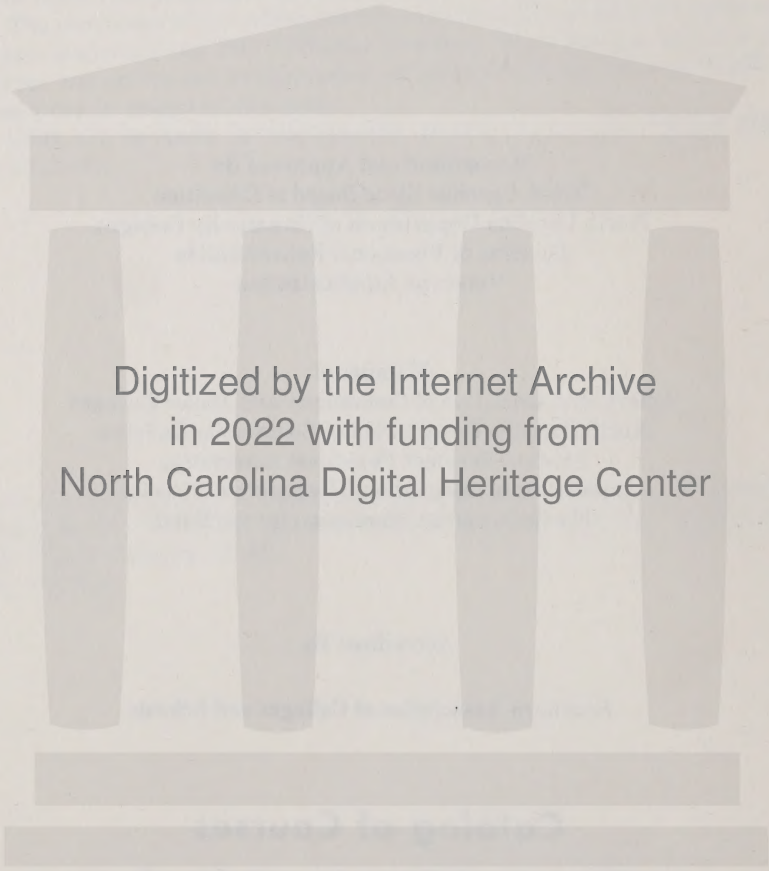
## **Catalog of Courses Day and Evening School**

Volume VII  
1974 -1976

**ARCHIVES**

PITT TECHNICAL INSTITUTE

CHERRYVILLE  
WEST CAROLINA



Digitized by the Internet Archive  
in 2022 with funding from  
North Carolina Digital Heritage Center



## TABLE OF CONTENTS

<b>GENERAL INFORMATION</b> .....	19
<b>TECHNICAL EDUCATION</b> .....	45
Agricultural Business .....	47
Agricultural Chemicals .....	51
Veterans Farm Cooperative Program .....	55
Air and Water Resources .....	59
Architectural Drafting .....	62
Accounting .....	65
Business Administration .....	68
General Office Technology .....	71
Secretarial .....	74
Commercial Art and Graphic Design .....	79
Electronic Data Processing - Business .....	82
Electronics Technology .....	85
Food Service Supervision .....	88
Mental Health Associate .....	91
Police Science and Inservice Officer .....	94
Course Descriptions .....	101
<b>VOCATIONAL EDUCATION</b> .....	145
Automotive Mechanics .....	146
Carpentry .....	149
Electrical Installation and Maintenance .....	151
Electronic Servicing .....	153
Heating, Refrigeration, and Air Conditioning .....	156
Machinist Trade .....	158
Mechanical Drafting .....	161
Practical Nurse Education .....	164
Teacher Assistant .....	166
Course Descriptions .....	169
Cooperative Education .....	196
<b>CERTIFICATE PROGRAMS</b> .....	199
Cosmetology .....	200
Farriering .....	202
Masonry .....	202
Operating Room Technician .....	205
Surveying .....	207
<b>CONTINUING EDUCATION</b> .....	209
Extension and Evening Programs .....	210
General Adult Education .....	232
<b>CAREER OPTION NURSE EDUCATION - TENTATIVE</b> .....	237

## CALENDAR 1974-1975

### FALL QUARTER

September	9	Monday	Instructor Orientation
	10,11	Tuesday	Registration
		Wednesday	
	12	Thursday	First day of classes
	20	Friday	Last date for late registration or to drop/add a course
October	18	Friday	Mid-Quarter grade reports due
November	27	Wednesday	End of Fall Quarter
	28,29	Thursday	Thanksgiving Holidays
		Friday	Thanksgiving Holidays
Total Number of Teaching Days			55

### WINTER QUARTER

December	3	Tuesday	Registration
	4	Wednesday	First day of classes
	13	Friday	Last date for late registration or to drop/add a course
	18	Wednesday	Last day of classes before Christmas Holidays
January - 1975			
January	2	Thursday	First day of classes after Christmas Holidays
	24	Friday	Mid-Quarter grade reports due
March	4	Tuesday	End of Winter Quarter
Total Number of Teaching Days			55



## SPRING QUARTER

March	10	Monday	Registration
	11	Tuesday	First day of classes
	21	Friday	Last date for late registration or to drop/add a course
	27	Thursday	Last day of classes before Easter Holidays
April	1	Tuesday	First day of classes after Easter Holidays
	18	Friday	Mid-Quarter grade reports due
May	28	Wednesday	End of Spring Quarter
	30	Friday	Graduation for all two-year students
Total Number of Teaching Days .....			55

## SUMMER QUARTER

June	9	Monday	Registration
	10	Tuesday	First day of classes
	13	Friday	Last date for late registration or to drop/add a course
July	4	Friday	Independence Day Holiday
	17	Thursday	Mid-Quarter grade reports due
August	26	Tuesday	End of Summer Quarter
	27	Wednesday	Graduation for all four-quarter students
Total Number of Teaching Days .....			55

## SPLIT SESSION

### First Term

June	9	Monday	Registration
	10	Tuesday	First day of classes
	13	Friday	Last date for late registration or to drop/add a course
July	4	Friday	Independence Day Holiday
	17	Thursday	End of first term
Total Number of Teaching Days .....			27

### Second Term

July	18	Friday	Registration
	21	Monday	First day of classes
	24	Thursday	Last date for late registration or to drop/add a course
August	26	Tuesday	End of second term
Total Number of Teaching Days .....			27



## CALENDAR 1975-1976

### FALL QUARTER

September	8	Monday	Instructor Orientation
	9	Tuesday	Freshman Orientation
	10	Wednesday	Registration
	11	Thursday	First Day of Classes
	19	Friday	Last Date to Drop/Add a Course
October	17	Friday	Mid-Quarter Grade Reports
November	24	Monday	Final Exams
	25	Tuesday	Final Exams
	26	Wednesday	Final Exams & End of Fall Quarter
	27	Thursday	Thanksgiving Holidays
	28	Friday	Thanksgiving Holidays

Total Number of Teaching Days ..... 55

### WINTER QUARTER

December	2	Tuesday	Registration
	3	Wednesday	First Day of Classes
	12	Friday	Last Date to Drop/Add a Course
	19	Friday	Last Day of Classes Before Christmas Holidays
January - 1976			
January	5	Monday	First Day of Classes After Christmas Holidays
	23	Friday	Mid-Quarter Grade Reports
February	27	Friday	Final Exams
March	1	Monday	Final Exams
	2	Tuesday	Final Exams & End of Winter Quarter

Total Number of Teaching Days ..... 55

## SPRING QUARTER

March	8	Monday	Registration
	9	Tuesday	First Day of Classes
	12	Friday	Last Date to Drop/Add a Course
April	15	Thursday	Mid-Quarter Grade Reports
	15	Thursday	Last Day of Classes before Easter Holidays
	20	Tuesday	First Day of Classes after Easter Holidays
May	24	Monday	Final Exams
	25	Tuesday	Final Exams
	26	Wednesday	Final Exams & End of Spring Quarter
	28	Friday	Graduation Exercises
Total Number of Teaching Days .....			55

## SUMMER QUARTER

June	7	Monday	Registration
	8	Tuesday	First Day of Classes
	11	Friday	Last Date to Drop/Add a Course
July	5	Monday	Independence Day Holiday
	16	Friday	Mid-Quarter Grade Reports
August	24	Tuesday	Final Exams
	25	Wednesday	Graduation Exercises
Total Number of Teaching Days .....			55



## SPLIT SESSION

### First Term

June	7	Monday	Registration
	8	Tuesday	First Day of Classes
	11	Friday	Last Date to Drop/Add a Course
July	5	Monday	Independence Day Holiday
	15	Thursday	Final Exam
	15	Thursday	End of First Term
Total Number of Teaching Days.....			27

### Second Term

July	16	Friday	Registration
	19	Monday	First Day of Classes
	22	Thursday	Last Date to Drop/Add a Course
August	24	Tuesday	Final Exams
	24	Tuesday	End of Second Term
Total Number of Teaching Days.....			27

## **PITT TECHNICAL INSTITUTE**

### **BOARD OF TRUSTEES**

Vernon E. White, Chairman

C. W. Everett, Vice Chairman

Appointed by the Governor of North Carolina

James W. Brewer, Greenville, N.C.

Robert Lee Ramey, Farmville, N.C.

William F. Tyson, Stokes, N.C.

A.B. Whitley, Jr., Greenville, N.C.

Appointed by Pitt County Commissioners

Wiley Gaskins, Grifton, N.C.

Carter G. Smith, Fountain, N.C.

Corey Stokes, Ayden, N.C.

Vernon E. White, Winterville, N.C.

Appointed by Pitt County and Greenville City Boards of Education

R.E. Davenport, Jr., Farmville, N.C.

C.W. Everett, Bethel, N.C.

Joseph M. Taft, Greenville, N.C.

Mrs. David J. Whichard, II, Greenville, N.C.



## OFFICE OF THE PRESIDENT

W. E. Fulford, Jr., Ed.D. ....	President
James H. Young, M.A. ....	Administrative Assistant
Miss Nancy Mewborn ....	Secretary

## OFFICES OF INSTRUCTION

Edward B. Bright, Ed.D. ....	Dean of Instruction
Edgar L. Boyd, M.S. ....	Director of General Adult Education
Joseph E. Downing, M.A. ....	Director of Faculty
Willard C. Finch, M.A. ....	Assistant Dean
Ola L. Porter, M.A. ....	Director of Occupational Education
Charles E. Russell, B.S. ....	Director of Adult Basic Education
Hugh P. Stanley, M.A. ....	Director of Evening Programs
Ed N. Warren, M.A. ....	Director of Cooperative Education
Mrs. Betsy Bundy ....	Secretary
Miss Barbara Harris, A.A.S. ....	Secretary
Mrs. Gwynn Harris, A.A.S. ....	Secretary
Mrs. Brenda Joyner ....	Secretary
Mrs. Judy Smith ....	Secretary
Mrs. Diane Weathington ....	Secretary

## LIBRARY RESOURCE CENTER

Mrs. Barbara C. Clark, M.A.Ed., M.L.S. ....	Director of Library Resource Center
Mrs. Doris H. Phelps, M.A.Ed. ....	Librarian
Kenneth L. Hilton, M.L.S. ....	Audio-visual Coordinator
Herbert A. Edwards ....	Audio-visual Technician
Mrs. Addie Ruth Smith, A.A.S. ....	Library Technical Assistant
Miss Connie Ambrose, A.A.S. ....	Library Assistant
Mrs. Louise Eure ....	Library Assistant
Mrs. Alberta Keyes ....	Library Assistant

## LEARNING RESOURCE CENTER

Mrs. Joy B. Sasser, A.B. ....	Learning Centers Coordinator
Mrs. Hazel S. Barrow ....	Coordinator, Kearney Park
Mrs. Louise B. Downing, M.S. ....	Learning Center Assistant Coordinator
Sidney M. Posey, A.A.S. ....	Coordinator Farmville Learning Center

## OFFICE OF STUDENT SERVICES

George S. McRorie, M.A. ....	Dean of Students
Miss Sylvia Corey .....	Financial Aid Officer
James O. Deans, M.A. ....	Counselor
Mr. Bobby Pettis .....	Counselor
Douglas M. Morgan, M.Ed. ....	Registrar
Ernest L. Quinn .....	Veteran's Affairs Coordinator
Mrs. Jean King .....	Secretary
Mrs. Eraine Oakley, A.A.S. ....	Secretary
Mrs. Avis Tetterton .....	Secretary

## OFFICE OF THE BUSINESS MANAGER

William H. Howell, M.S. ....	Business Manager
Mrs. Doris Baker, A.A.S. ....	Bookstore Operator
Mrs. Frances Elks .....	Posting Specialist
Mrs. Ruth Hardy .....	Assistant Bookkeeper
Mrs. Connie Harrell .....	Bookkeeper
Earl L. Keel .....	Security Officer
Mrs. Debra Lane .....	Assistant Bookkeeper
Mrs. Elizabeth Mallory .....	Switchboard Receptionist
Clifton J. Moss .....	Inventory Specialist
Mrs. Alberta Moye .....	Purchasing Agent
Mrs. Judy Pollard .....	Graphic Arts Technician
Mrs. Nancy Taylor .....	Assistant Bookkeeper
Miss Helen Vandiford .....	Assistant Bookkeeper

## CUSTODIAN STAFF

William G. Tanner .....	Plant Operation and Maintenance Supervisor
Mrs. Viola Boyd .....	Maid
James Daniels .....	Custodian
David O. Forlines .....	Grounds Keeper
Walter J. Gatlin .....	Custodian
Mrs. Ada Mae Sasser .....	Maid
Bennie E. Strong .....	Custodian
Ernest L. White .....	Custodian

## SPECIAL STAFF

Earl L. Aiken ..... Area Consultant,  
Supervisory Development Training

John L. Corey, III ..... Instructor, Job Preparation Program

Alton R. Harris ..... Recruiter, Job Preparation Program

Cecil L. Lamm ..... Area Coordinator for Chemical Tests for  
Alcohol Training

Guy C. Langston ..... Area Consultant, Law Enforcement Training

Mrs. Rhonda Bullock ..... Secretary

Mrs. Joyce Williams, A.A.S. .... Secretary



## INSTRUCTIONAL STAFF

- J. Kelly Adams ..... Commercial Art & Graphic Design  
B.A. - Atlantic Christian College  
M.F.A. - East Carolina University
- Wilbur A. Ballenger ..... Related Subjects  
A.B. - Atlantic Christian College  
M.A. - East Carolina University
- William R. Boyd ..... Heating, Air Conditioning, & Refrigeration  
Diploma - Cape Fear Technical Institute
- Morris H. Bray ..... Farriering  
Diploma - Pitt Technical Institute
- Mrs. Jacquelyn P. Briley ..... Related Subjects  
B.A. - U.N.C. at Greensboro  
M.A. - East Carolina University  
Advanced Work - East Carolina University
- James T. Brooks ..... Carpentry  
Attended A & T College, Greensboro
- James W. Brown ..... Related Subjects  
B.S. - East Carolina University
- Mrs. Jean C. Brown ..... Related Subjects  
B.S. - East Carolina University  
M.A. - East Carolina University  
Advanced Work - East Carolina University
- Phillip L. Clark ..... Mental Health  
B.A. - University of Michigan - Ann Arbor  
M.S.W. - Michigan State University - E. Lansing
- Mrs. Faye H. Dempsey ..... Business Education  
B.S. - East Carolina University  
M.A. - East Carolina University
- James A. Creech ..... Business Education  
B.S. - North Carolina Central University - Durham  
M.S. - North Carolina Central University
- Edward L. Dail ..... Related Subjects  
B.S. - Davidson College  
M.A.T. - Duke University



- Mrs. Della P. Dayson ..... Cooperative Education  
 A.A. - Santa Ana Junior College  
 B.S. - East Carolina University  
 Advanced Work - East Carolina University
- Mrs. Bertie E. Fearing ..... Related Subjects  
 B.S. - East Carolina University  
 M.A. - East Carolina University
- Mrs. Glennis E. Finch ..... Teacher Assistant  
 B.S. - East Carolina University  
 Advanced Work - East Carolina University
- Miss E. Elaine Flippin ..... Business Education  
 B.S. - Appalachian State University  
 M.A. - Appalachian State University
- Mrs. Margaret J. French ..... Mental Health  
 B.A. - West Virginia University  
 M.S. - West Virginia University
- James E. Fulcher ..... Machinist Trade  
 U.S. Naval Apprentice School  
 Advanced Work - Lenoir Community College
- Henry M. Geddy, Jr. .... Related Subjects  
 B.S. - East Carolina University  
 M.A. - East Carolina University
- William H. Gibson ..... Police Science  
 A.B. - Wake Forest University  
 M.A. - Wake Forest University
- Charles Reese Helms ..... Business Education  
 B.S.B.A. - East Carolina University  
 M.B.A. - East Carolina University
- Gene D. Hemby ..... Machinist Trade  
 Diploma - Lenoir Community College  
 Advanced Work - East Carolina University
- James N. Hoover ..... Electronics Technology  
 B.S.E.E. - North Carolina State University  
 M.S. - East Carolina University
- Lloyd F. Huggins ..... Police Science  
 A.B. - East Carolina University

- Mrs. Judith W. Kuykendall ..... Practical Nurse Education  
 B.S.N. - East Carolina University  
 Advanced Work - East Carolina University
- James H. Land ..... Electronic Data Processing  
 Raleigh School of Data Processing  
 A.A.S. - Data Processing - Pitt Technical Institute
- Mrs. JoAnn B. Leith ..... Business Education  
 B.S. - East Carolina University  
 M.A. - East Carolina University
- Rudy Lloyd ..... Related Subjects  
 A.A.S. - Pitt Technical Institute
- Max T. McClanahan ..... Architectural Drafting  
 B.S. - Clemson University
- Dwight B. McGowan ..... Auto Mechanics  
 Diploma - Pitt Technical Institute
- Mrs. Mildred T. McGrath ..... Electronic Data Processing  
 B.S. - East Carolina University  
 M.A. - Colorado State University  
 Advanced Work - Colorado State University  
 Professional Certificate in Data Processing
- Mrs. Melinda E. McRorie ..... Commercial Art & Graphic Design  
 B.F.A. - Massachusetts College of Art  
 M.F.A. - Tulane University
- Daniel C. Martin, Jr. .... Electronics Servicing  
 Associate in Electronic Technology  
 DeVry Technical Institute - Chicago, Illinois
- Edwin F. Martin, Jr. .... Architectural Drafting  
 B.S. - North Carolina State University  
 Advanced Work - East Carolina University & Georgia Tech
- Robert W. May ..... Veterans Farm Cooperative Program  
 B.S. - North Carolina State University  
 M.S. - North Carolina State University
- Mrs. Shirley H. Moore ..... Business Education  
 B.S. - East Carolina University  
 M.Ed. - East Carolina University
- William H. Moore ..... Agricultural Business & Chemicals  
 B.S.A. - University of Georgia  
 M.Ed. - University of Georgia  
 M.S. - Ohio State University

- Kenneth D. Morey ..... Police Science  
 B.S. - Western Illinois University  
 M.S. - Eastern Kentucky
- Dean E. Painter ..... Air & Water Resources  
 B.S. - Oregon State University  
 M.S. - Trinity University - San Antonio, Texas
- Mrs. Joyce O. Pettis ..... Related Subjects  
 B.A. - Winston-Salem State University  
 Advanced Work - East Carolina University
- Mrs. Linda R. Roberts ..... Practical Nurse Education  
 B.S.N. - East Carolina University
- Roland A. Smith ..... Auto Mechanics  
 Professional Certificate - Gaston College  
 B.S. - East Carolina University
- Mrs. Carol C. Stevens ..... Practical Nurse Education  
 B.S.N. - East Carolina University
- Frank M. Sutton ..... Business Education  
 A.B.E.D. - University of North Carolina at Chapel Hill  
 Advanced Work - East Carolina University
- James A. Tripp ..... Masonry  
 Diploma - Pitt Technical Institute
- Jarvis E. Tripp ..... Electrical Installation & Maintenance  
 Belvoir-Falkland High School
- Mrs. Ann L. Tunstall ..... Operating Room Technician  
 B.S.N. - East Carolina University
- Robert M. Turner ..... Mechanical Drafting  
 Certificate - Newport News Ship Building & Dry Dock Apprentice School  
 B.S. - North Carolina State University  
 Advanced Work - East Carolina University
- Larry T. Ward ..... Related Subjects  
 B.S. - University of Arizona  
 M.S. - East Carolina University
- John L. Warren ..... Air & Water Resources  
 B.S. - Davidson College  
 M.S. - North Carolina State University

J. M. Whitehurst ..... Electronics, Related  
A.B. - East Carolina University  
Advanced Work - East Carolina University

Mrs. Lynda B. Wilms ..... Business Education  
& Educational Development Officer  
B.S. - University of Missouri  
M.A. - University of Georgia

Mrs. Barbara B. Wilson ..... Business Education  
B.S. - East Carolina University  
M.A. - East Carolina University





***GENERAL  
INFORMATION***

## GENERAL INFORMATION

### History of Pitt Technical Institute

Pitt Technical Institute had its beginning in 1960 when the citizens of Pitt County approved a bond issue for the construction of a physical plant to house an Industrial Education Center. The leadership of the late Dr. Robert Lee Humber, played an important part in the establishment of the Institute. The school was chartered in 1961 as an Industrial Education Center to serve the needs of the people of Pitt County and surrounding areas. In 1964 the school was designated a Technical Institute by the North Carolina State Board of Education.

The first classes were held in the new building in September, 1964, with an initial enrollment of 96 full-time day students. Since that time, the Institute has steadily increased its enrollment and broadened its curriculum.

The Institute is located on Highway 11, South, between Greenville and Winterville. The original building and the Humber Building has approximately 67,000 square feet of useable space with spacious and well designed laboratories, shops, and classrooms.

The school is a publicly supported, non-profit Technical Institute that offers a broad curriculum in technical and vocational programs.

## STATEMENT OF PURPOSE

The purposes of Pitt Technical Institute are as follows:

1. To provide expanded educational opportunities for young people and adults who desire to continue their education.
2. To provide relatively inexpensive, nearby educational opportunities for high-school graduates, school dropouts, and adults.
3. To provide technician programs, preparing students for jobs of this level in industry, agriculture, business, and service occupations.
4. To provide vocational programs of less than technician level, preparing students for jobs requiring different levels of ability and skill.
5. 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 program.
6. To provide short courses that will meet the general adult and community service needs of the people of the community.

## AREAS OF STUDY AT PITT TECHNICAL INSTITUTE

### ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAMS

Agricultural and Environmental Sciences  
Air and Water Resources Technology  
Agriculture Business Technology  
Agriculture Chemicals Technology  
Agriculture Science and Mechanization  
(Veterans Farm Program)

Architectural Drafting  
Commercial Art and Graphic Design  
Electronic Data Processing-Business  
Electronics Technology  
Food Service Management  
Mental Health Technology  
Nursing Education - Tentative  
Police Science  
Veterans Farm Cooperative Program  
Accounting  
Business Administration  
General Office Technology  
Secretarial Science

### TECHNICAL SPECIALTIES (CERTIFICATE PROGRAM)

Agriculture Science and Mechanization  
Surveying

### DIPLOMA PROGRAMS

Automotive Mechanics (one or two-year option)  
Electrical Installation and Maintenance  
Electronics Servicing (one or two-year option)  
Heating, Refrigeration and Air-Conditioning  
Machinist Trade (one or two-year option)  
Masonry  
Mechanical Drafting  
Practical Nurse Education  
Teacher Assistant  
Welding

## CERTIFICATE PROGRAMS

Cosmetology  
Farriering  
Masonry  
Operating Room Assistant

## ACCREDITATION & PROFESSIONAL ORGANIZATIONS

### Department of Community Colleges

Pitt Technical Institute is accredited by the North Carolina State Department of Community Colleges under the State Board of Education, as specified in Chapter 115A of the General Statutes of North Carolina.

The Department of Community Colleges and the State Board of Education has granted the Institute Board of Trustees the authority to award the Associate in Applied Science Degree for the completion of the two-year technology curriculum and the two-year business curricula and the awarding of the Diploma for all vocational curricula.

### Regional Accreditation

Pitt Technical Institute is accredited by the Southern Association of Colleges and Schools.

Pitt Technical Institute is recognized by the U.S. Department of Education as being an institution of higher learning and qualified to receive Federal assistance in all of its higher education programs.

Pitt Technical Institute is an institutional member of the American Association of Community and Junior Colleges.

The programs at Pitt Technical Institute are approved by the Veterans Administration.

## ADMISSION PROCEDURES

The admission procedures of Pitt Technical Institute are designed to create a feeling of personal interest in the applicant and his plans for the future.

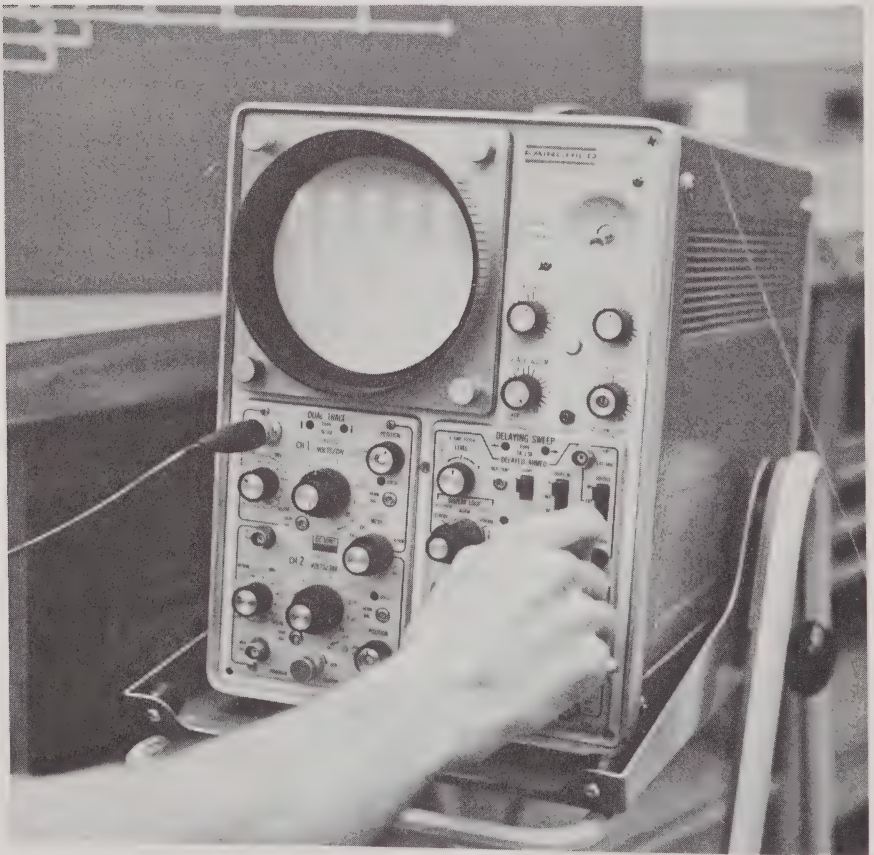
- A. Pitt Technical Institute operates under the "open-door" policy as set forth by the North Carolina Department of Community Colleges and the State Board of Education. Specifically the State Board recommends that all technical institutes and community colleges shall maintain an open-door admission policy for all applicants who are high-school graduates or high-school leavers 18 years of age or older. The Institute has the right to selectively place these applicants.



- B. The basic requirements for curriculum programs are as follows:
- (1) High school graduation for all programs except vocational trade programs, which require a student to have at least 8 units of high school work or its equivalent.
  - (2) High-school equivalent certificates will be accepted in lieu of graduation from a regular high school.
  - (3) A completed health questionnaire signed by the student and his parents must be furnished prior to enrollment in the Institute.
  - (4) A completed application blank.
  - (5) Have taken either the General Aptitude Test Battery administered by the Employment Security Office and/or the Differential Aptitude Test administered by Pitt Technical Institute. A report of these test scores should be in the applicant's folder before entrance to Pitt Technical Institute.
  - (6) Satisfactory scores on the Scholastic Aptitude Test will be accepted in lieu of other test scores for all technical or business curriculums.
  - (7) Applicants for Electronics Technology and Architectural Drafting should have completed two units of mathematics; one of which is in algebra and the other in plane geometry or an equivalent in modern mathematics; the Institute will waive the math requirements if a student, in the judgment of his department head and counselor, has the necessary mathematical aptitude as determined by the North Carolina Community College Pre-Math Test.
  - (8) All Applicants should make an appointment with one of the guidance counselors for a personal interview during the summer prior to their enrollment into the Institute. The counseling session is designed to acquaint the student with the Institute and to help determine if the student has made a wise choice in his program selection.
- C. Pitt Technical Institute will accept students from other institutes or colleges provided:
- (1) Formal application is submitted.
  - (2) Transcript of college or technical institute credit is furnished by all previously attended institutions.
  - (3) Student is in good standing with former institution.
  - (4) Passing grades will be considered for acceptance.
  - (5) A completed health questionnaire signed by the student and his parents must be furnished prior to enrollment in the Institute.
- D. Adult Education—Admission requirements for classes in adult education are determined on the basis of each such class offered.
- E. Evening Curriculum Programs—The same admission requirements for full-time day curriculum programs are also applicable to evening curriculum programs.
- (1) The Institute will waive admission requirements for evening curriculum programs should the student desire to enroll in a course for audit only. The audit student must pay the same tuition, but he will receive no credit for the course.
  - (2) The Institute will waive the admission requirements for the evening curriculum if the applicant holds either an A.A.S. degree, B.S. degree,

or any other academic degree, but the applicant must provide the Institute with a transcript of his work at his previous institution.

- F. Readmission of Curriculum Students—Students re-entering after one or more quarters out of school will follow normal registration procedures. If the student was out of school as a result of disciplinary action, he must appear before the Judiciary Council and petition for readmission to the Institute.
- G. Admission procedures for the Nursing programs differ from the above in that the following is required:
- (1) Come to the Institute and take the School and College Ability Test (SCAT) and the Otis or Henmon-Nelson Mental Ability Test.
  - (2) Three letters of recommendation are required.
  - (3) A health certificate showing a clean bill of health attested to by a licensed physician.
  - (4) A personal interview with the Director of the Nursing Education Program.



## GRADUATION REQUIREMENTS

All students planning to graduate should have the following things done as soon as possible at the beginning of the quarter in which they plan to graduate and no later than the third (3rd) week of that quarter:

1. Meet with advisor and complete a graduation check list.
2. Submit a completed copy of the graduation check list to the registrar.
3. After a complete check, the Registrar's Office will notify the Dean of Students and the student that everything is in order for graduation. Or, will notify the student if it is not.
4. After receipt of a favorable notification, the student should pay his graduation fee at the office of the Dean of Students.

**NOTE:** No degree, diploma, certificate, or transcript of a record will be issued to a student who has not made **SATISFACTORY SETTLEMENT** with the Business Office for all his **INDEBTEDNESS TO THE INSTITUTE**.

## EXPENSES AND FEES

### TUITION AND FEES

Pitt Technical Institute receives financial support from local, state, and federal sources, allowing each student an educational opportunity at minimum cost. Tuition fees are set by the State Board of Education and are subject to change without notice. Cost of textbooks, laboratory 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.

The tuition schedule is explained as follows:

### FULL-TIME STUDENTS

All vocational, technical, and audit students who are enrolled for **twelve (12) or more** credit hours are charged a maximum of \$32.00 per quarter. (In state) For out of state students the tuition is \$137.50 per quarter.

## PART-TIME STUDENTS

The tuition charge for curriculum credit students (and audit students) is \$2.50 times the number of credit hours for which the student is enrolled. Example: 9 credit hours X \$2.50 = \$22.50. For out-of-state students the fee is \$11.45 per credit hour.

## GRADUATION FEE

A graduation fee of \$12.00 will be due and payable to the Student Personnel Office once a curriculum student applies for a degree or diploma and is so notified by the Student Personnel Office that he is eligible for graduation. The fee covers the cost of the diploma, the rental of a cap and gown, and any other graduation expense for which the Institute nor the State are eligible to pay. The fee is payable at registration during the Spring Quarter or the quarter of graduation. The fee is required prior to graduation but the student should know that he is eligible to graduate before paying as this fee is not refundable. Those graduating other than at the Spring Graduation Exercises and who will not wear cap and gowns are required to pay only a \$6.00 Graduation Fee.

## STUDENT ACTIVITY FEE

The Student Activity Fee for each full-time student is \$5.00 per quarter. A fee of \$3.00 per quarter is charged for students taking 9-11 quarter hours of credit.

## REFUND POLICY

Tuition refund for students shall not be made unless the student is, in the judgment of the institution, compelled to withdraw for unavoidable reasons. In such cases, two-thirds (2/3) of the student's tuition may be refunded if the student withdraws within (10) calendar days after the first day of classes as published in the school calendar. Tuition refunds will not be considered after that time. Tuition refunds will not be considered for tuitions of Five Dollars (\$5.00) or less, unless a course or curriculum fails to materialize due to no fault of the student. **Exception:** Those students who are veterans or war orphans receiving benefits under U.S. Code, Title 38, Chapters 33 and 35 may be refunded the **pro rata** portion of the tuition fee not used at the time of withdrawal of such students.

There is no refund on such yearly payments as activity fee, insurance premium fee, graduation fee for cap, gown, and diploma once it is ordered, or any other special fees.



In all refund cases, the student must initiate his withdrawal through the Student Personnel Office. The Business Office will make the allowable refund only after written request is received from the Personnel Office.

If a student is unable to make payment of his fees in full at the time of registration, he is requested to contact the Business Manager prior to attending classes. Prior to meeting with the Business Manager the student should check with the Student Financial Aid Officer and secure any assistance possible. The student should bring any supporting evidence that he will receive financial assistance with him at the time he visits the Business Manager.

## **ACADEMIC STANDING**

To be in good academic standing a beginning student must have earned a grade point average of at least 1.00 by the end of the first quarter. A cumulative grade point average of 1.00 must be maintained thereafter.

A student failing to attain the required grade point average in any quarter will be placed on academic probation for the following quarter.

A student on probation whose work has improved to the point where he meets the required grade point average for the quarter in which he is enrolled will automatically be removed from probation.

A student who has been placed on probation and who does not earn the required grade point average in the next quarter may be required to withdraw from the program, and directed to another program.

A student who has been on probation twice non-consecutively may be withdrawn from the program and encouraged to enter a less demanding program if his grade point average again falls below grade point average required for that quarter.

If a student fails one of the courses in his major subject area he may be withdrawn from the program at the end of the quarter in which the failure occurred. Each student enrolled in the Institute is expected at all times to be aware of his academic status and to be responsible for knowing whether he has failed to meet the requirements as outlined above for continuing in his chosen curriculum.

Instructors, faculty advisors, and counselors in the Student Personnel Office are available for conferences, but it is the responsibility of the student to seek extra help if it is needed.

## **GRADE POINT AVERAGE (G.P.A.)**

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 and vocational students maintaining a quarterly grade point average between 3.50 and 4.00 will be recognized on the Dean's List.

A quarterly grade point average between 3.00 and 3.49 will entitle full-time technical and vocational students to be listed on the Honor Roll.

The Dean's List and Honor Roll is prepared by the Registrar's office and mailed to all local or area newspapers of the students qualifying for either of these two.

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

## TEXTBOOKS AND SUPPLIES

The cost of textbooks and supplies vary according to the program of study, but average about \$45.00 per quarter for full-time students. These items may be purchased from the Bookstore.

## ACCIDENT INSURANCE

Accident insurance, covering hours in school and transportation to and from school, is available for \$3.00 per year. This insurance is strongly recommended, though not required.

## GRADING SYSTEM

The following is the grading system used by Pitt Technical Institute.

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	Withdrew	0
I	Incomplete	0
Aud	Audit	0

## **EXPLANATION OF GRADES**

### **I-Incomplete**

An "Incomplete" grade not removed by the end of the quarter following that in which the I is incurred will become permanent. Subsequent to an I becoming permanent, a student may repeat the course or apply for an examination by proficiency; such examination being subject to approval by the instructor of the course and/or the Department Chairman.

Courses with an "Incomplete" grade are not used in computing grade point averages; however, a student with an "Incomplete" grade is not eligible for the Dean's List or Honor Roll in the quarter the "Incomplete" is received.

### **W-Withdrew**

This grade is assigned to courses from which the student withdraws before the end of the seventh week of the quarter.

### **Aud.-Audit**

Students taking courses as auditors are not required to take examinations or hand in written work, but may do so if they wish. No credit toward a degree or diploma is given.

## **GRADE REPORTS**

### **Mid-Term Reports**

A mid-term report is mailed to the student's home at the end of the first six weeks of the quarter, if the student's work is failing at that point.

### **End of Quarter Reports**

Grades for all courses taken during the quarter are mailed to the student's home as soon as possible after the end of the quarter.

## **REGISTRATION**

The Institute year consists of four quarters. Students who are pursuing a curriculum must register at the beginning of each quarter as they progress toward their educational objectives. All students will register during the prescribed registration period for that quarter (refer to school calendar.).

## **PREREGISTRATION**

Preregistration is usually held around the middle of the quarter and is a time when the student and his or her advisor can review the student's academic progress and plan the student's courses for the upcoming quarter.

It is an important part of the student's program. The student, with his advisor, has an opportunity to discuss academic problems on an individual basis and keep abreast of his or her progress.

Only those students currently enrolled are allowed to preregister.

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

## **LATE REGISTRATION**

A student may register late for class(es) providing:

1. The class is not cancelled or closed.
2. The student was pre-advised or otherwise fully admissible to the courses for which he registers.
3. The student convinces his advisor and the Registrar that it was impossible or would have involved extreme hardship for him to register at the appointed time. Negative decisions may be appealed to the Dean of Students

## **AUDITING COURSES**

Students who wish to audit courses must register for such courses. Auditors receive no credit but are encouraged to attend class, participate in discussions, and take examinations. Fees and tuition for auditors are the same as for regular institute students.

## **COURSE LOAD**

A two-year technical or vocational student who carries a 12 quarter-hour load is considered a full-time student. The normal load is 15 to 18 hours.

Students who are employed more than 15 hours per week should reduce their class load accordingly. The beginning student who has full-time employment is urged to limit his class load to 9 to 12 quarter hours until he has demonstrated his ability to carry a heavier schedule.

One-year vocational students will take the courses as prescribed in the curricula outlines, or as they may choose to limit themselves.

## **ATTENDANCE**

The Institute has no system for allowing absences from class; therefore, no set number of class absences is authorized. Absences are a serious deterrent to good scholarship; and it is virtually impossible to receive optimum instruction,



obtain knowledge, or gain skill when absent. As all students are adults with many responsibilities, an occasional absence might be absolutely necessary; however, such absences in no way lessen the student's responsibility for meeting the requirements of the class. Explanation for an absence may not be demanded, but as a matter of courtesy the reason for it should be given to the instructor.

Students who can anticipate absences should contact their instructor prior to the absence if at all possible. Should this be impossible, the student should see the instructor as soon after the absence as possible to explain his absence and make up work.

## **CLASS SCHEDULE**

Pitt Technical Institute offers classes between the hours of 8:00 a.m. and 10:00 p.m. five days per week, except on Friday all classes end at 5:00 p.m. The majority of the credit courses are offered between the hours of 8:00 a.m. and 5:00 p.m. When the demand justifies it, at least one section of each curriculum course is offered during the evening hours.

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

It is possible with careful planning to complete most of the work required for a degree or diploma by attending evening classes.

## **CHANGES IN REGULATIONS**

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

## **CHANGE IN MAJOR COURSE OF STUDY**

Any student desiring to change his or her major course of study must complete and return the request form to the Registrar's Office. The form is also obtained from the Registrar's Office. No student will be allowed to register or pre-register until this form is returned to the Registrar's Office.

## **STUDENT CLASSIFICATION**

Freshman	A student who has earned fewer than 54 quarter hours of credit.
Sophomore	A student who has earned more than

Full-time Student	54 quarter hours of credit. A student who is registered for twelve (12) or more quarter hours.
Part-time Student	A student who is registered for 11 quarter hours or less.
Special Student	A full-time or part-time student not seeking a degree or diploma. Audit students are also included in this classification.

### **TRANSFER CREDIT—Other Institutions**

All students desiring to have credits transferred from another institution to Pitt Tech must submit an official transcript to the Office of the Registrar. Those students with transcripts already on file should come by the Registrar's Office to request evaluation so that credits may be transferred. Only those students requesting, either orally or written that their transcripts be evaluated will be considered. **NO EVALUATION WILL BE DONE AUTOMATICALLY.**

A maximum of 60 credit hours may be transferred from institutions outside the North Carolina Community College System toward completing an Associate degree. The sixth quarter must be completed at Pitt Technical Institute.

### **TRANSFER CREDIT—Pitt Tech Evening Program**

No transfer credit for any day curriculum students or others will be considered unless those students make a request, either orally or written, to the Registrar's Office. **NO EVALUATION WILL BE DONE AUTOMATICALLY.**

### **WITHDRAWALS FROM THE INSTITUTE**

A student who finds it necessary to withdraw from the Institute must do so through the Registrar's Office. The student should complete a withdrawal form and obtain the signature of the various officials designated on the form.

A student who withdraws **officially** before the end of the quarter in which the course(s) is normally completed will receive no grades. Only the date of official withdrawal will be noted on the student's transcript.

### **TRANSCRIPTS**

All transcripts submitted by applicants as part of their admission requirements will become property of Pitt Technical Institute.

## **DROPPING AND/OR ADDING COURSES**

In some instances it is necessary for students to make adjustments in their schedule. To insure that the student will receive proper credit, a Drop-Add Form should be completed and returned to the Registrar's Office. The Institute's calendar, published in the **Student Handbook** and the catalogue, indicates the last day to drop and/or add a course. This date is subject to change with proper notification.

Students should pay particular attention to procedural directions as no course is officially dropped or added until the required procedure is completed.

The Drop-Add period will be observed through the period indicated by the school calendar.

The following steps should be followed:

1. Obtain drop-add form from the Registrar's Office;
2. Have instructor(s) involved initial it;
3. Have advisor sign it;
4. Have it signed by the Business Office;
5. Return form to Registrar's Office.

## **CHANGE OF NAME AND/OR ADDRESS**

Students are responsible for notifying the Registrar's Office of all name and address changes. This is necessary to keep all records in proper order.

## **STUDENT PERSONNEL SERVICES**

### **COUNSELING SERVICES**

The Student Personnel Services include counseling services provided by full-time trained personnel. The counseling services are available to all students, part-time and full-time. Pre-admission counseling is available to assist new incoming students in understanding the various programs and curriculums offered by Pitt Technical Institute. Information concerning school transfer is also available.

Every student is assigned to a faculty advisor who serves to assist the student with specific course planning and registration.

Students are asked to come by the counselor's office at any time, but especially when problems arise which could affect his progress in school. Faculty members are asked to encourage students to use this service. Counseling services are available to evening students.

## **PLACEMENT SERVICE**

Pitt Technical Institute provides a job placement service for all students who successfully complete their course of study. The Placement Office maintains a current file of prospective employers and provides these employers with personal data sheet on students meeting the job demands. Representatives from business and industry from a wide geographical area come to the campus each spring to interview prospective students.

## **HOUSING FACILITIES**

The Institute does not provide housing facilities for students either on or off campus. The Institute will aid a student in securing suitable housing but has no responsibility other than as a go-between for student and landlord.

## **FOOD SERVICE**

The Snack Bar provides hot lunches, sandwiches, cakes, soft drinks and other foods.

## **ORIENTATION**

All new students are required to participate in the Orientation Program which occurs one day before registration for the Fall Quarter.

The Orientation Program is divided into five information and welcome sections.

- ORIENTATION A: Curriculum (area of study) welcome and information
- ORIENTATION B: Student Personnel welcome, introductions and information
- ORIENTATION C: Student Personnel Information
- ORIENTATION D: Welcome, introductions and information by the Library, Learning Lab, Extension, and evening classes (staff)
- ORIENTATION E: Business Office Information

## **STUDENT GOVERNMENT ASSOCIATION**

The Student Government Association serves to promote interest in student affairs on and off campus. Recommendations from the Council may be made directly to the administration. Faculty advisors to the Student Council serve as intermediaries for relaying to the administration other worthwhile student suggestions.

The council is composed of elected representatives from each curriculum.

Officers of the Council are elected by vote of the student body. The Council meets on a regularly scheduled date.

## **SOCIAL LIFE**

A series of events is provided throughout the year for the social, cultural and educational enrichment of the students. Any student who pays the student activity fee is eligible to attend activities sponsored by the Institute.

## **INTRAMURAL SPORTS**

The Institute provides its students an opportunity to participate in wholesome recreational activities.

## **INTERCOLLEGIATE ATHLETICS**

Pitt Technical Institute participates in a limited program of intercollegiate athletics. The Institute competes in a basketball league. Other sports may be organized as interest develops.

## **GUIDED TOURS**

Many groups visit Pitt Technical Institute during the year for the purpose of inspecting the facilities and opportunities available in trade and technical education.

Groups are assembled in the lobby where they are greeted by the Dean of Students. Larger groups are divided into smaller groups and then they are taken on a guided tour of the Institute. All programs are explained to groups as the tour progresses. No department is excluded. In addition to seeing classes and shops, the groups are also taken into the library and the learning laboratory.

Generally a tour will last approximately 45 minutes.



## **FINANCIAL AID**

### **LOANS**

#### **THE NATIONAL DIRECT STUDENT LOAN PROGRAM**

##### **PURPOSE:**

To identify and educate more of the talent in our nation.

##### **ADMINISTRATION:**

Responsibility for administration of the loan funds rests with each institution, which selects student recipients, and arranges and collects the loans.

##### **ELIGIBILITY:**

Borrower must be in need of the amount of his loan to pursue his course of study in the institution.

Borrower must be capable in the institution's opinion, of maintaining good standing in his course.

Borrower must be enrolled, or accepted for enrollment, as a student in the institution.

Borrower must be carrying at least one-half the normal full-time academic workload as determined by the institution.

##### **EXIT INTERVIEWS:**

At any time a student who has received a National Direct Student Loan terminates his education at Pitt Technical Institute, he must contact the Business Manager for an exit interview and arrangements will be made for repayment of the loan.

#### **BURROUGHS-WELLCOME LOAN FUND**

Pitt Technical Institute administers a Loan Fund which is supported by the Burroughs-Wellcome Company. Eligible students may secure short-term loans at no interest. Money obtained through this loan fund must be used for direct educational expenses which is limited to the cost of tuition, insurance fees, supplies, and books. These loans must be repaid before the end of the current quarter. All loans must be secured by a promissory note with the signature of the borrower and the signature of one other person as surety. Responsibility for recollection of these loans rests with the Student Financial Aid Office.

#### **COLLEGE FOUNDATION, INC. INSURED STUDENT LOAN PROGRAM**

Applicants must be legal residents of North Carolina enrolled or accepted for full-time enrollment in an eligible college, university, technical, or vocational

school Students are urged to apply for the minimum amount required to meet their educational expenses. Loans may not exceed \$2,500 during any academic year. Students in good standing may reapply each year funds are needed.

Each loan is secured by a promissory note signed by the student. Loan checks, less insurance fees, are payable jointly to the student and the educational institution and are sent to the student aid office at the beginning of each academic term. Loans are insured by the North Carolina State Education Assistance Authority.

The annual percentage rate is 7% simple interest plus 1/2% insurance fee during the enrollment, grace, and repayment periods. Borrowers are entitled to Federal interest benefits. Under Federal Interest benefits, the U.S. Office of Education pays the 7% interest during full-time enrollment, a nine month grace period, and authorized extension periods. The borrower pays 7% interest during the repayment period.

Repayment begins on the first of the tenth month after the borrower ceases to be a full-time student. The amount of the monthly payment and the number of months in the repayment period are determined by the total amount to be repaid. However, the monthly payment may not be less than \$30 and may be as much as \$90. The repayment period may not exceed 10 years. The borrower may prepay or accelerate payments at any time without penalty. Upon written request, extension of repayment may be granted up to three years for service in the Armed Forces, Peace Corps, or VISTA.

Loan applications may be obtained from the student financial aid office at North Carolina institutions or from the Foundation. Request for applications from the Foundation must include the name and address of the educational institution. Students must have applications certified and forwarded to the Foundation by the student aid officer. July 1 is the deadline for submitting applications to the Foundation for the beginning of the academic year. Separate applications are required for summer school loans and should be received after the deadlines will be processed for the remaining academic terms as time and funds allow.

## **JAMES E. & MARY Z. BRYAN FOUNDATION, STUDENT LOAN PLAN**

Residents of North Carolina enrolled full time in undergraduate programs may borrow up to \$1,500 per academic year. The interest rate is 1% during the in-school period, and 6% during the repayment period. Repayment begins four months after leaving school as a full-time student.

## **GRANTS**

### **BASIC EDUCATION OPPORTUNITY GRANT**

#### **PURPOSE:**

The Basic Educational Grant Program is a Federal Aid program designed

to provide financial assistance to those who need it to attend post-high school educational institutions. The program was effective July 1, 1973.

**ADMINISTRATION:**

The educational institution is responsible for determining eligible students and the actual day-by-day operation of the program.

**ELIGIBILITY:**

Students may contact the Student Financial Aid Officer concerning eligibility. Applications are available from high school counselors, post offices, the Student Financial Aid Office, etc.

**SUPPLEMENTAL EDUCATION OPPORTUNITY GRANT PROGRAM**

**PURPOSE:**

To make post-high school education available to high school graduates of exceptional financial need who, without the grants, would be unable to continue their educational at all Grants ranging from \$200 to \$1,000 are made to students for each of the two years of study.

**ADMINISTRATION:**

The institution is responsible for selecting eligible students and taking care of any matters pertaining to the actual day-by-day operation of the program.

**ELIGIBILITY:**

Any student in extreme financial need who has been accepted for admission or who is already enrolled and in good standing.

**WORK STUDY PROGRAMS**

**COLLEGE WORK-STUDY, VOCATIONAL WORK-STUDY AND PACE PROGRAMS**

**PURPOSE:**

designed to help prevent the waste of talent occurring when capable high school graduates cannot continue their education because they lack money. With few restrictions, students may be employed in almost any job which needs to be done and which the institution could not otherwise get done because of lack of funds.

**ADMINISTRATION:**

The institution is responsible for selecting the students to be employed under the program, defining the jobs, supervising the work, handling the payroll and handling actual day-by-day operations of the program.

**ELIGIBILITY:**

Students must be enrolled or accepted for enrollment as a student in the institution. Students must be in need of the earnings from part-time employment. Students must be capable of maintaining good standing in courses of study while being employed.

**LAW ENFORCEMENT ASSISTANCE: GRANTS AND LOANS**

Inservice students in the Police Science curriculum are eligible for either outright grants or loans to cover the cost of their training and other allied costs. Loans are discounted at the rate of 25% a year for students who continue to work in criminal justice agencies after graduation.

**SCHOLARSHIPS****PREP-SHIRT, INC.**

Two scholarships of \$200 each are granted qualified students. These scholarships are provided by Prep-Shirt, Incorporated, a Greenville industry.

**FINCH VOCATIONAL EDUCATION SCHOLARSHIP (Established in 1971)**

This scholarship is furnished by Mr. and Mrs. Willard Finch in the amount of \$100.00 per year to cover the cost of tuition only. This scholarship is renewable for the second year if the recipient has successfully passed his first year's work.

**SOCIAL SECURITY**

Sons and daughters of retired, disabled, or deceased workers are eligible for social security benefits up to the age of twenty-two while they are in college, if they are unmarried, full-time students.

Payment of these benefits is not automatic. If a student is not yet eighteen and wants to continue receiving monthly benefits or if his benefits were stopped because he has reached the age of eighteen, he should notify the Social Security Administration. Students should contact their local Social Security representative for further information.

## VOCATIONAL REHABILITATION

By Act of Congress, any physically handicapped student may be eligible for scholarship assistance under the provision of Public Law 565. Applications for this scholarship aid should be processed through the District Vocational Rehabilitation Office nearest the applicant. Inquiries may be directed to the Rehabilitation Office.

## VETERANS BENEFITS

The Veterans Benefits Law provides financial assistance to any veteran who is eligible for benefits under the G. I. Bill. When a veteran enrolls in an approved course, he must pursue that exact curriculum listed in the school catalogue; must provide the Veterans Administration with exact records of attendance and must maintain satisfactory academic progress, attendance, and conduct for continuing eligibility for payments.

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

### Technical Programs

12 up .....	Full Time
9-11 .....	3/4 Time
6-8 .....	1/2 Time

V. A. payments for veterans in a vocational program are based on contact (hours in class per week) hours per quarter as indicated below:

### Vocational Programs

30 .....	Full Time
22 .....	3/4 Time
15 .....	1/2 Time

## CHILDREN OF VETERANS

The Veterans Administration offers educational assistance up to 36 months, for sons and daughters of certain deceased or totally and permanently disabled veterans, generally between 18 and 23 years of age. An allowance up to \$130 per month is made to students under the program. For further information, write the Veterans Administration in Winston-Salem or contact the local Veterans Affairs Office.

## COMMISSION FOR THE BLIND

Any person who is visually handicapped to the extent that it constitutes a vocational threat may be entitled to training assistance under the provision of



Public Law 565. Applications for scholarship assistance from this agency should be processed through the District Office of the Division of Services for the Blind nearest the applicant. Inquiries may be directed to the Rehabilitation Counselor serving this agency on the Pitt Technical Institute campus.

## **GENERAL STUDENT REGULATIONS**

### **TRAFFIC REGULATIONS**

Because most of the students commute to Pitt Technical Institute, it is necessary that the following traffic and parking regulations be enforced:

#### **AUTOMOBILES:**

Speed limit on campus—15 miles per hour.

Staff and Faculty—Park in areas marked “Area A” by signs located on the campus. They must display a parking sticker reading “Area A” parking.

Students—Park only in area marked “Area B” by signs placed throughout the campus. All student vehicles must display a parking sticker reading “Area B” parking.

Two wheeled vehicles will park only in the area designated by signs as “Two Wheeled Vehicles Only.”

### **STUDENT CONDUCT**

It is expected that at all times the student will conduct himself as any responsible adult in a public place. Therefore, destruction of school property, such acts as stealing, cheating, gambling, use of profane language, engaging in personal combat, the possession of dangerous weapons, and the possession or use of alcoholic beverages or narcotics in or on school property cannot be tolerated. Any violation of the regulation concerning alcohol and/or narcotics may result in expulsion from the Institute.

### **DISMISSAL**

A student may be dismissed from a class or from the Institute for conduct or personal habits which are not in the best interests of the students and of the institution.

Information on dismissal and re-instatement procedures may be obtained in the Student Personnel Office.

## **STUDENT DRESS**

Students are expected to dress appropriately for all classes and other school functions. Students are urged to study the dress of professional workers in their area of study and dress in like manner while attending school. As the student will soon enter professional status, he should become accustomed to like dress while enrolled for a training period.

## **FIRE DRILLS—ADMINISTRATION BUILDING**

Fire drills will be held once each quarter. The fire alarm will consist of a series of three signals (rings) followed by a pause and a repetition of these signals. Students will exit at the end doors closest to their classroom and will proceed in a orderly manner to a safe distance from the building.

## **FIRE DRILLS—CLASSROOM AND LABORATORY BUILDING**

In the new Classroom and Laboratory Building (two story building) the fire alarm consists of a "bull horn" type of noise distinctly different from the bell sound. This sound repeated over and over is the fire alarm signal in this building.

The all clear signal for both buildings is one long sounding of the bell system.

## **SECURITY GUARDS**

The security officers located on the campus are for your protection and the protection of your property while on campus. They also are here to protect school property.

An additional duty is the enforcement of a few basic traffic regulations that are necessary to insure free flow of traffic through the campus, and safe movement of pedestrians on campus.

## **STUDENT PUBLICATIONS**

Pitt Technical Institute publishes the following periodicals:

Student Handbook  
Institute Catalog

A faculty or staff advisor will be assigned to each student publication activity.

## **STUDENT HEALTH SERVICES AND INSURANCE**

Pitt Technical Institute being a commuter institute where the student resides at home, maintains no health facilities other than first aid equipment. The responsibility for medical services rests with the student and his parents or guardian.

The Institute has made arrangements with a local physician who will take emergency calls. Emergency facilities are also available at the Pitt Memorial Hospital in Greenville.

The entering student is required to complete a health questionnaire. This record becomes a part of the student's permanent record.

Student accident insurance is available at a cost of \$3.00 per year.

## **GRADUATION EXERCISES**

Graduation exercises are held two times each year. The two-year technical students graduate in late May. The one-year diploma students graduate in late August. A \$12.00 graduation fee is assessed each student who graduates in the spring and a \$6.00 fee to those who graduate in August.

## **CLASS RINGS, GRADUATION CAPS AND GOWNS, AND INVITATIONS**

All orders for class rings, caps and gowns, and graduation invitations will be made through the Student Personnel Office. Notices will be posted relevant to dates for measurements. Students are urged to be prompt when making these orders.



## **SPECIAL SERVICES**

### **LIBRARY RESOURCE CENTER**

The Library Resource Center at Pitt Technical Institute provides materials and services to aid in achieving the educational goals and objectives of the Institute. The continually growing collection of materials includes all types of communication media-books, pamphlets, magazines, newspapers, films, filmstrips, film loops, transparencies, slides, tapes, records, and microfilm of back issues of magazines and newspapers. These materials are selected to support and enrich all educational programs offered at the Institute; to provide materials for reference in all subject areas; and to serve the avocational interests and needs of Pitt Technical Institute students, faculty and staff, and other interested residents of the area.

An open shelf arrangement for browsing and individual study carrels in the air-conditioned, well-lighted, carpeted facility, help to provide a pleasant atmosphere conducive to study and to leisure time use of the variety of materials available.

The Library Resource Center is open Monday through Thursday from 7:45 a.m. to 9:30 p.m. and on Friday from 7:45 a.m. to 5:00 p.m. (closed on Saturdays, Sundays and Holidays). Professional reference services and general assistance are available to patrons at all times when the Library Resource Center is open.

### **BOOKSTORE**

Pitt Technical Institute operates a college bookstore to provide service for its students and faculty. All textbooks, instruments, and supplies required by the academic program are available in the bookstore at competitive prices. We also have limited numbers of used textbooks. In addition to those items required by the academic program, the bookstore sells most of the supplies normally found in a college bookstore. The bookstore is operated under the direction of the Business Manager. Hours during which the bookstore is open for business are posted on the door to the bookstore.

### **THE LEARNING CENTER**

The Learning Center is set up by the Department of Community Colleges for students who wish to learn on their own. Study areas include the following: Preparation for taking the high school equivalency test; preparation for entrance into a curriculum program; college preparation; upgrading in specific areas; and study of subjects for personal satisfaction.

***TECHNICAL  
EDUCATION***



## TECHNICAL EDUCATION

Technical Education has assumed new importance in the United States. Acute shortages of trained manpower have developed in many areas despite a surplus of persons who possess abilities, and who would be interested in preparing themselves for technical occupations if appropriate educational opportunities were available.

Broadly defined, technical occupations are those which usually require a high degree of specialized knowledge, a broad understanding of operational procedures, and the ability to supervise the work of others. The technical program at Pitt Technical Institute is designed to prepare students for a number of basic positions in particular fields, rather than for a specific job.

Technical programs are not generally intended for transfer to a four year college or university. The ultimate objective is employment and further growth through occupational experience. Upon successful completion of a prescribed technical program, a student is awarded the Associate in Applied Science Degree.

Technical programs to be offered during the 1974-76 school years are as follows:

- Agriculture Business
- Agriculture Chemicals
- Air and Water Resources Technology
- Architectural Drafting
- Commercial Art and Graphic Design
- Electronic Data Processing - Business
- Electronics Technology
- Mental Health Technology
- Police Science
- Accounting
- Business Administration
- Secretarial Science
- Veterans Farm Cooperative Program
- Food Service Management
- General Office Technology
- Career Option Nurse Education - Tentative

# AGRICULTURAL BUSINESS TECHNOLOGY

## INTRODUCTION

### Purpose of Curriculum

Rapid technological changes in farming and related agricultural businesses have given rise to the need for more technically trained people. A variety of agricultural businesses and industries employ persons to assist in marketing, processing, and distributing of farm products and providing services to the farmer. Many responsible positions in agricultural businesses and industries require technical training not available in high schools or in four year colleges.

Agricultural production is undergoing tremendous changes. The trends are to larger, highly mechanized, and specialized farms with huge capital investments. This means that there will be an increasing demand for capable farm managers to coordinate the purchasing, production, and marketing of these larger agricultural production operations.

Farm managers of the future must possess greater technical competence to remain in the highly competitive production phase of agriculture. They must be able to cope with present production problems and adapt to rapid technological changes.

It is anticipated that changes in agriculture and the general economic environment will occur at a faster rate in the future. Profitable management of agricultural operations will demand successful adjustment to these changes. Decisions involved in these adjustments will require an individual with more training, knowledge, and ability.

The Agricultural Business Curriculum is designed to help students acquire knowledge, understanding, and abilities in the broad field of agricultural business, including agricultural production. It combines knowledge of agriculture with business training to prepare the graduate for many of the varied employment opportunities in agriculture.

### Job Description

As agricultural business and industry firms expand in size and number, they are experiencing rapid changes in technologies of production, sales, and management in an increasingly competitive environment. Future employees of such firms must be prepared to understand these changes and adapt themselves accordingly.

Successful completion of this curriculum should enable a person to assume responsibilities in an agricultural firm and should enable him 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 salesman or store

manager in farm supply stores; agricultural field serviceman; salesman, demonstrator or plant manager of feed and food companies; farm products inspector; salesman, or office managers of farm products marketing firms.

The trend towards larger farming operations with increased nonfarm control of production means there will be greater employment opportunities for well trained individuals who can efficiently and profitably supervise the production and marketing of agricultural products.

## AGRICULTURAL BUSINESS TECHNOLOGY

### SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
ENG 101	Grammar	3	0	3
MAT 100	Review of Fundamental Mathematics	5	0	5
AGR 125	Animal Science	5	2	6
AGR 279	Farm Forestry	3	2	4
		16	4	18

### SECOND QUARTER

ENG 102	Composition	3	0	3
AGR 185	Soil Science	5	2	6
BUS 120	Principles of Accounting	5	0	5
CHM 102	Inorganic Chemistry	4	2	5
		17	4	19

### THIRD QUARTER

ENG 204	Oral Communications	3	0	3
EDP 104	Introduction to Data Processing	3	0	3
AGR 170	Plant Science	5	2	6
*	Business Elective	<u>3-5</u>	<u>0</u>	<u>3-5</u>
		14-16	2	15-17

### FOURTH QUARTER

ENG 103	Report Writing	3	0	3
AGR 278	Weed Identification & Control	3	2	4
BUS 232	Sales Development	3	0	3
AGR 218	** Agricultural Mechanization	3	2	4
BUS 102	Beginning Typewriting	2	3	3
BUS 102A	Typewriting Lab	0	5	0
	OR			
BUS 103	Intermediate Typewriting	2	3	3
BUS 103A	Typewriting Lab	<u>0</u>	<u>5</u>	<u>0</u>
		14	12	17

### FIFTH QUARTER

AGR 119	Techniques of Welding	1	3	2
AGR 204	Agricultural Economics & Farm Records	3	2	4
ENV 225	Agricultural Pollution	4	3	5
AGR 245	Crop Insects	3	2	4
	Social Science Elective	<u>3</u>	<u>0</u>	<u>3</u>
		14	10	18

SIXTH QUARTER

AGR 203	Pesticide & Fertilizer Application	3	2	4
AGR 247	Pesticides & their Use in Home & Community	2	2	3
BUS 110	Office Machines	3	2	4
BUS 110A	Office Machines Lab	0	5	0
AGR 228	Plant & Animal Diseases	3	2	4
***	Social Science Elective	3	0	3
		<u>14</u>	<u>13</u>	<u>18</u>

TOTAL QUARTER HOURS IN COURSES

105-107

\*BUS 121 Accounting, BUS 115 Business Law, BUS 102 Beginning Typewriting, BUS 102A Beginning Typewriting Lab

\*\*AGR 205 Agricultural Marketing (May be offered in lieu of AGR 218)

\*\*\*AGR 296 Agricultural Programs & Agencies (Meets requirement as Social Science Elective)





# AGRICULTURAL CHEMICALS TECHNOLOGY

## INTRODUCTION

### Purpose of Curriculum

Agricultural Chemicals Technology is a modern science combining the basic principles and practical applications of both chemistry and agriculture. Industries served by this curriculum offer responsible positions in many agricultural and chemical areas requiring specialties for which training is not available to students of the four year university. North Carolina is rapidly expanding with industries requiring persons qualified at the technical level. These technicians must be able to translate the modern technologies into practical applications. The ever increasing and changing demand to halt the dangerous spread of pollution and the demand to train personnel generally in the efficient use of otherwise dangerous materials are major factors in the increased demands for specialists in this vital industry.

This institution 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 the 15th in the nation. It is widely supported and advised by related industries statewide. The program that offers to industry a semiprofessional employee who, with normal on-the-job orientation, can actively execute the many technical tasks 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 and relation to farming.
2. Understanding applied chemistry in action within the agricultural chemicals industry.
3. Understanding business organizations, procedures and management of firms producing, marketing, and applying agricultural chemicals.
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 that emphasizes particular chemical skills.

### Job Description

Each phase of the agricultural chemicals industry offers employment opportunities for technically trained individuals in sales, research, production, manufacturing, management and custom farm application. Equally the

curriculum is adapted to provide a sound base for graduates who desire self-employment in full time farming upon successful completion of this program. Positions are available in the larger regional companies, as well as the smaller local farm supply businesses. These positions offer challenging responsibilities as fertilizer or pesticide sales representatives, equipment salesmen or servicemen, research technicians, product formulators, store managers, custom applicators, regulatory inspectors, plant operators and quality control technicians. New chemicals and new uses for existing agricultural chemicals are developing rapidly, creating challenging and well paying jobs. The future of the agricultural chemicals field is unlimited.

## AGRICULTURAL CHEMICALS TECHNOLOGY

### SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
ENG 101	Grammar	3	0	3
MAT 100	Review of Fundamental Mathematics	5	0	5
AGR 125	Animal Science	5	2	6
AGR 279	Farm Forestry	3	2	4
		<u>16</u>	<u>4</u>	<u>18</u>
<b>SECOND QUARTER</b>				
ENG 102	Composition	3	0	3
AGR 185	Soil Science	5	2	6
BUS 120	Principles of Accounting	5	0	5
CHM 102	Inorganic Chemistry	4	2	5
		<u>17</u>	<u>4</u>	<u>19</u>

### THIRD QUARTER

ENG 204	Oral Communications	3	0	3
CHM 103	Inorganic Chemistry	4	2	5
EDP 104	Introduction to Data Processing	3	0	3
AGR 170	Plant Science	5	2	6
BUS 102	Beginning Typewriting	2	3	3
BUS 102A	Typing Lab	0	5	0
	OR			
BUS 103	Intermediate Typewriting	2	3	3
BUS 103A	Typing Lab	0	5	0
		<u>17</u>	<u>12</u>	<u>20</u>

### FOURTH QUARTER

ENG 103	Report Writing	3	0	3
AGR 278	Weed Identification & Control	3	2	4
BUS 232	Sales Development	3	0	3
AGR 218	* Agricultural Mechanization	3	2	4
CHM 106	Organic Chemistry	4	2	5
		<u>16</u>	<u>6</u>	<u>19</u>

### FIFTH QUARTER

AGR 119	Techniques of Welding	1	3	2
AGR 204	Agricultural Economics & Farm Records	3	2	4
ENV 225	Agricultural Pollution	4	3	5
AGR 245	Crop Insects	3	2	4
	Social Science Elective	3	0	3
		<u>14</u>	<u>10</u>	<u>18</u>

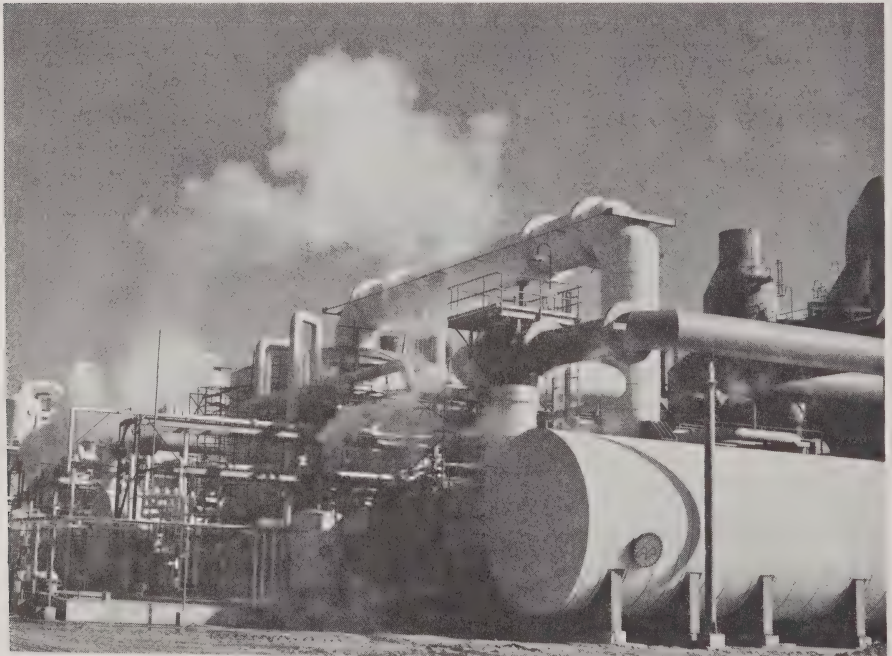
SIXTH QUARTER

AGR 203	Pesticide & Fertilizer Application	3	2	4
AGR 247	Pesticides & their Use in Home & Community	2	2	3
BUS 110	Office Machines	3	2	4
BUS 110A	Office Machines Lab	0	5	0
AGR 228	Plant & Animal Diseases	3	2	4
**	Social Science Elective	3	0	3
		<u>14</u>	<u>13</u>	<u>18</u>

TOTAL QUARTER HOURS IN COURSES 112

\*AGR 205 Agricultural Marketing (May be offered in lieu of AGR 218)

\*\*AGR 296 Agricultural Programs & Agencies (Meet requirements as Social Science Elective)



**VETERANS FARM COOPERATIVE PROGRAM  
 AGRICULTURAL SCIENCE AND MECHANIZATION  
 (WITH TECHNICAL SPECIALTY OPTION)\***

**INTRODUCTION**

**Purpose of Curriculum**

This 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. There is a growing scarcity of young men trained in basic agricultural science and mechanization. Larger farming operations require more mechanization and tremendous outlays of capital; thus, the need for trained farmers becomes increasingly critical. The objective of the curriculum is to provide the managerial and operative training needed for successful farm operation.

**Job Description**

The graduate of the Agricultural Science and Mechanization Curriculum is trained to manage and operate a farm. In addition, he should be able to perform most of the repairs to buildings and equipment, as well as perform the necessary electrical, construction, and plumbing requirements pertaining to the farm operation.

The satisfactory completion of a minimum of eighteen hours of general education in addition to the technical specialty courses will lead to an Associate in Applied Science Degree. A complete listing follows the curriculum presentation.

**VETERANS FARM COOPERATIVE PROGRAMS  
 AGRICULTURAL SCIENCE AND MECHANIZATION  
 (WITH TECHNICAL SPECIALTY OPTION)\***

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
ENG 215	Farm Machinery, Repair & Maintenance	3	2	4
AGR 205	Agricultural Marketing	$\frac{3}{6}$	$\frac{2}{4}$	$\frac{4}{8}$



SECOND QUARTER

AGR 185	Soil Science & Fertilizers	5	2	6
AGR 107	Farm Records & Taxes	<u>3</u>	<u>0</u>	<u>3</u>
		8	2	9

THIRD QUARTER

AGR 119	Techniques of Welding	1	6	3
AGR 107	Animal Nutrition	<u>3</u>	<u>0</u>	<u>3</u>
		4	6	6

FOURTH QUARTER (SUMMER)

AGR 222	Farm Electrification	3	2	4
AGR 222A	Farm Electrification Lab	<u>0</u>	<u>5</u>	<u>0</u>
		3	7	4

FIFTH QUARTER

AGR 228	Plant & Animal Diseases	3	2	4
AGR 278	Weed Identification & Control	<u>3</u>	<u>2</u>	<u>4</u>
		6	4	8

SIXTH QUARTER

AGR 204	Agricultural Economics & Farm Resources	3	2	4
AGR 245	Crop Insects	<u>3</u>	<u>2</u>	<u>4</u>
		6	4	8

SEVENTH QUARTER

AGR 218	Agricultural Mechanization	3	2	4
AGR 279	Farm Forestry	3	2	4
		<u>6</u>	<u>4</u>	<u>8</u>

EIGHTH QUARTER (SUMMER)

AGR 296	Agricultural Programs & Agencies	3	0	3
AGR 105	Pastures & Forage Crops	2	0	2
AGR 105A	Pastures & Forage Crops Lab	0	5	0
		<u>5</u>	<u>5</u>	<u>5</u>

NINTH QUARTER

AGR 136	Agricultural Math	3	0	3
AGR 143	New Sources of Farm Income	2	0	2
AGR 290	Soil & Water Conservation	3	2	4
		<u>8</u>	<u>2</u>	<u>9</u>

TENTH QUARTER

AGR 201	Agricultural Chemicals (pesticides)	3	2	4
AGR 187	Fertilizers & Lime	3	2	4
		<u>6</u>	<u>4</u>	<u>8</u>

ELEVENTH QUARTER

AGR 128	Farm & Home Construction	2	4	4
AGR 121	Crop Production	2	2	3
		<u>4</u>	<u>6</u>	<u>7</u>

TWELFTH QUARTER (SUMMER)

AGR 272	Tobacco Production	3	2	4
AGR 272A	Tobacco Production Lab	0	5	0
		<u>3</u>	<u>7</u>	<u>4</u>

The following additional General Education & Agricultural Science Courses are required for an Associate in Applied Science Degree:

	Course Title	C	L	CH
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
PSY 102	General Psychology	3	0	3
SOC 102	Principles of Sociology	3	0	3
AGR 135	Agricultural Law	3	0	3
AGR 203	Pesticide & Fertilizer Application	3	2	4
		<u>24</u>	<u>2</u>	<u>25</u>

TOTAL QUARTER HOURS IN COURSES  
FOR DIPLOMA PROGRAM 91

TOTAL QUARTER HOURS IN COURSES  
FOR ASSOCIATE DEGREE PROGRAM 116

# AIR & WATER RESOURCES TECHNOLOGY

## INTRODUCTION

### Purpose of Curriculum

The State of North Carolina has been blessed with abundant natural resources and through the wonders of technology, man has manipulated the environment to produce tremendous benefits to human life. However, in the process he has created massive pollution of the land, the sea, and the air. North Carolina is emerging from a predominately agricultural state to a newly developing industrial area and has a golden opportunity to learn from the mistakes of the past and apply environmental controls to each new industry.

The technology, which is blamed for the deterioration of the environment, must prove its ability to reverse the trend and reclaim the purity of its environment at the same time establishing growth for a purpose as a substitute for growth at any cost.

The responsibility for solving environmental problems at the state level rests mainly with the N.C. Department of Natural & Economic Resources, Air & Water Resources Division, & the N.C. State Board of Health. In addition to these state agencies, private industry, municipalities and counties of the state must build up staffs knowledgeable in the solution of environmental problems in order to ensure compliance with state and federal antipollution regulations. Many of these staff positions can be filled by well-trained technicians knowledgeable in air pollution, water pollution, and solid waste pollution fields.

This curriculum is designed to train technicians to be aware of the impact which their technical field exerts on the entire environment and to be able to communicate with those outside their technical field as well as those within this field. Graduates of the program will be knowledgeable about state and federal laws related to air and water pollution and the solutions to environmental problems. Graduates will be trained to operate and maintain sampling, testing, and analytical equipment required in the area of water purification and air and water pollution detection and control.

### Job Description

A graduate of this program is qualified for entry into positions such as air pollution control technician, water pollution control technician, industrial waste technician, public health sanitarian aide, water treatment plant operator, waste water treatment plant operator and technical sales and services of equipment and chemicals in related fields. These positions are available in private industry, as well as federal, county, state and municipal agencies dealing with environmental problems.

## AIR & WATER RESOURCES TECHNOLOGY

### SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
ENV 101	Environmental Orientation	3	2	4
ENV 104	Environmental Biology	3	3	4
MAT 101	Technical Mathematics	5	0	5
ENG 101	English Grammar	3	0	3
		<u>14</u>	<u>5</u>	<u>16</u>

### SECOND QUARTER

ENV 102	Microbiology	3	3	4
CHM 102	Inorganic Chemistry	4	2	5
MAT 102	Technical Mathematics	5	0	5
ENG 102	English Composition	3	0	3
PHY 100	Slide Rule	1	0	1
		<u>16</u>	<u>5</u>	<u>18</u>

### THIRD QUARTER

ENV 103	Water Resources Management	3	2	4
CHM 103	Inorganic Chemistry	4	2	5
PHY 105	Environmental Physics	3	2	4
ECO 108	Consumer Economics	3	0	3
ENG 204	Oral Communications	3	0	3
		<u>16</u>	<u>6</u>	<u>19</u>



#### FOURTH QUARTER

ENV 112	Air Resources Management	3	2	4
ENV 204	Water Sampling & Analysis	2	4	4
ENV 217	Waste Water Treatment	3	2	4
ELC 111	Basic Electricity	3	2	4
SOC 202	Environmental Sociology	3	0	3
		<u>14</u>	<u>10</u>	<u>19</u>

#### FIFTH QUARTER

ENV 205	Waste Water Sampling & Analysis	2	4	4
ENV 212	Air Pollution Sources & Control	3	3	4
ENV 225	Agricultural Pollution	4	3	5
ENG 103	Report Writing	3	0	3
		<u>12</u>	<u>10</u>	<u>16</u>

#### SIXTH QUARTER

ENV 206	Industrial Waste Water Field Sampling & Analysis	3	3	4
ENV 226	Atmospheric Air Sampling & Analysis	2	6	5
ENV 236	Air Pollution Source Sampling & Analysis	2	6	5
EDP 104	Introduction to Data Processing	3	0	3
		<u>10</u>	<u>15</u>	<u>17</u>

TOTAL QUARTER HOURS IN COURSES 105

#### ELECTIVES OFFERED IN ADDITION TO ABOVE

COE 101-104	Cooperative Education Internship (1 to 4 credit hours)
ENV 200	Environmental Projects Course
ENV 220	(1 to 3 credit hours)
ENV 230	
ENV 240	

# ARCHITECTURAL DRAFTING TECHNOLOGY

## INTRODUCTION

### Purpose of Curriculum

This curriculum was designed in cooperation with the N.C. Chapter of the American Institute of Architects. Its explicit purpose is to train architectural draftsmen for the architect's office and the building industry. Through a survey made of AIA member firms in N.C., it was determined that a large number of architectural draftsmen is needed to fill existing vacancies. Projections show that this existing need will more than double in the next two years.

This program is designed to provide the individual with knowledge and skills that will lead to employment in the field of architectural drafting and related areas in the construction industry and afford opportunity for rapid advancement in technical knowledge and proficiency. Technical courses are included which will enable the graduate to advance into related areas of work as job experience is obtained. This program represents the educational requirements as established by the Architectural Drafting Advisory Committee, which was a panel formed by members of the AIA, consultants, and curriculum lab specialist. The statement of goals and expectations of this committee are as follows:

### GOAL:

To conduct a training course which will prepare a person with a high school background to develop, by further study and experience, the ability necessary to communicate the architect's designs to the builder.

We anticipate that graduates of the proposed curriculum would be prepared to enter an architect's office as "technicians" with the ability to turn the architect's designs into working drawings for the building industry. Graduates should be competent draftsmen, well informed on the building industry in general, the operation of architect's offices, and should have a knowledge of materials and techniques of construction. Their training should include an appreciation of the mechanical, electrical, and structural aspects of buildings. Basic training in oral and written communication will give graduates a background for developing their potential in broader aspects of architectural practice, such as specification writing and supervision of construction.

We do not expect or desire that graduates be designers or artists but competent "technicians" filling an important position in the field of architectural practice. We recognize that all graduates will not work for architects. The curriculum is broad enough to enable graduates to work in related fields of construction. Their advancement to positions of responsibility would be dependent only upon their own aspirations and willingness to study and work. Their education would just begin with this curriculum. Professional development is an important

aspect of the curriculum and the department has a student chapter of the American Institute of Architects.

### Job Description

Architectural drafting technicians are concerned with turning the architect's design sketches into complete and accurate working plans and detail drawings for construction purposes. He may prepare floor plans, elevation drawings, construction details, mechanical equipment layouts, door, window and room schedules and site plans. The drafting technician may be involved in work in areas such as engineering, building construction, specification writing, construction models, or architectural rendering. The opportunity for employment is phenomenal.

## ARCHITECTURAL DRAFTING TECHNOLOGY

### SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
CIV 105	Architectural Materials & Methods	3	3	4
ARC 106	Architectural Drafting	2	6	4
ENG 101	Grammar	3	0	3
MAT 101	Technical Mathematics	5	0	5
	Social Science Elective	3	0	3
		<u>16</u>	<u>9</u>	<u>19</u>
<b>SECOND QUARTER</b>				
ARC 107	Architectural Drafting	2	6	4
AHR 106	Architectural Mechanical	3	3	4
	Equipment			
ENG 102	Composition	3	0	3
MAT 102	Technical Mathematics	5	0	5
PHY 101	Technical Physics	3	2	4
PHY 100	Slide Rule	1	0	1
		<u>17</u>	<u>11</u>	<u>21</u>

THIRD QUARTER

ARC 108	Architectural Drafting	0	9	3
DFT 236	Construction Estimating & Field Inspecting	3	3	4
	Social Science Elective	3	0	3
ENG 204	Oral Communications	3	0	3
MAT 103	Technical Mathematics	5	0	5
PHY 102	Technical Physics	3	2	4
		<u>17</u>	<u>14</u>	<u>22</u>

FOURTH QUARTER

CIV 114	Statics	5	0	5
CIV 101	Surveying	2	6	4
ARC 220	Architectural Drafting	2	9	5
PHY 103	Technical Physics	3	2	4
ENG 103	Report Writing	3	0	3
		<u>15</u>	<u>17</u>	<u>21</u>

FIFTH QUARTER

CIV 216	Strength of Materials	3	2	4
ARC 221	Architectural Drafting	2	9	5
DFT 235	Codes, Specifications, & Contracts	3	3	4
ARC 233	Office Practice	2	0	2
		<u>10</u>	<u>14</u>	<u>15</u>

SIXTH QUARTER

CIV 221	Reinforced Concrete	3	2	4
ARC 222	Architectural Drafting	2	9	5
DFT 230	Structural Drafting	2	6	4
		<u>7</u>	<u>17</u>	<u>13</u>

TOTAL QUARTER HOURS IN COURSE 111

# BUSINESS EDUCATION ACCOUNTING

## INTRODUCTION

### Purpose of Curriculum

Accounting is one of the fastest growing employment fields in America today and the job outlook for good accountants seems bright for many years to come. These opportunities are the result of the tremendous business and industrial expansion in all parts of the country. Because of this emphasis, there is a growing need for trained people in the area of accounting to help managers keep track of a firm's operation. The Accounting Curriculum is designed to fill this need by offering students the necessary accounting theories and skills for entry into the accounting profession.

The specific objectives of the Accounting Curriculum are to develop the following competencies:

1. Understanding the principles of organization and management in business operations.
2. Understanding of the fundamentals of accounting and analysis of financial statements.
3. Understanding and skill in effective communications for business.

### Job Description

The duties and responsibilities of an accountant vary somewhat in different firms. Some of the things an accountant might do are: record transactions, render periodic reports, maintain cost records, make special reports, complete tax returns, audit the books, and advise management in areas of financial affairs.

The graduate of the Accounting Curriculum may qualify for various jobs in business and industry leading to any of the following accounting positions: accounting clerk, payroll clerk, accounting machine operator, auditor, and cost accountant. This training plus further experience should prepare the graduate to perform as office manager, accounting supervisor, and to fill other responsible positions in a business firm.



**BUSINESS EDUCATION  
ACCOUNTING**

**SUGGESTED CURRICULUM BY QUARTERS**

Course Title		C	L	CH
<b>FIRST QUARTER</b>				
ENG 101	Grammar	3	0	3
BUS 101	Introduction to Business	3	0	3
ECO 102	Economics	3	0	3
MAT 110	* Business Mathematics	5	0	5
BUS 120	Principles of Accounting	5	0	5
		<u>19</u>	<u>0</u>	<u>19</u>

**SECOND QUARTER**

ENG 102	Composition	3	0	3
ECO 104	Economics	3	0	3
BUS 115	Business Law	3	0	3
BUS 121	Principles of Accounting	5	0	5
BUS 123	Business Finance	3	0	3
		<u>17</u>	<u>0</u>	<u>17</u>

**THIRD QUARTER**

ENG 204	Oral Communications	3	0	3
BUS 116	Business Law	3	0	3
BUS 122	Principles of Accounting	5	0	5
BUS 117	Office Machines	3	2	4
BUS 117A	Office Machines Lab	0	5	0
BUS 102	Beginning Typewriting	2	3	3
BUS 102A	Typewriting Lab	0	5	0
	OR			
BUS 103	Intermediate Typewriting	2	3	3
BUS 103A	Typewriting Lab	0	5	0

#### FOURTH QUARTER

ENG 103	Report Writing	3	0	3
EDP 114	Introduction to Computer Concepts	3	0	3
BUS 235	Business Management	3	0	3
BUS 222	Intermediate Accounting	5	2	6
	Business Elective	3	0	3
		<u>17</u>	<u>2</u>	<u>18</u>

#### FIFTH QUARTER

ENG 206	Business Communication	3	0	3
EDP 223	RPG I	2	4	4
BUS 223	Intermediate Accounting	5	2	6
BUS 225	Cost Accounting	3	2	4
	Social Science Elective	3	0	3
		<u>16</u>	<u>8</u>	<u>20</u>

#### SIXTH QUARTER

BUS 229	Taxes	3	2	4
BUS 269	Auditing	3	2	4
BUS 227	Advanced Accounting	3	2	4
	Social Science Elective	3	0	3
		<u>12</u>	<u>6</u>	<u>15</u>

TOTAL QUARTER HOURS IN COURSES 107

\*Satisfactory evidence that admission requirements have been met.

# **BUSINESS EDUCATION BUSINESS ADMINISTRATION**

## **INTRODUCTION**

### **Purpose of Curriculum**

In North Carolina, the opportunities in business are increasing. With the increasing population and industrial development in this state, business has become more competitive and automated. Better opportunities in business will be filled by students with specialized education beyond the high school level. 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 many phases of administrative work that might be encountered in the average business.

The specific objectives of the Business Administration Curriculum are to develop the following competencies:

1. Understanding of the principles of organization and management in business operations.
2. Understanding our 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.
5. Knowledge of human relations as they apply to successful business operations in a rapidly expanding economy.

### **Job Description**

The graduate of the Business Administration Curriculum may enter a variety of career opportunities from beginning sales person or office clerk to manager trainee. The duties and responsibilities of this graduate vary in different firms. These encompassments might include: making up 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 EDUCATION  
BUSINESS ADMINISTRATION**

**SUGGESTED CURRICULUM BY QUARTERS**

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
ENG 101	Grammar	3	0	3
BUS 101	Introduction to Business	3	0	3
ECO 102	Economics	3	0	3
MAT 110	* Business Mathematics	5	0	5
BUS 120	Principles of Accounting	5	0	5
		<u>19</u>	<u>0</u>	<u>19</u>

**SECOND QUARTER**

ENG 102	Composition	3	0	3
ECO 104	Economics	3	0	3
BUS 115	Business Law	3	0	3
BUS 121	Principles of Accounting	5	0	5
BUS 123	Business Finance	3	0	3
		<u>17</u>	<u>0</u>	<u>17</u>

**THIRD QUARTER**

ENG 204	Oral Communications	3	0	3
BUS 116	Business Law	3	0	3
BUS 122	Principles of Accounting	5	0	5
BUS 117	Office Machines	3	2	4
BUS 117A	Office Machines Lab	0	5	0
BUS 102	Beginning Typewriting	2	3	3
BUS 102A	Typewriting Lab	0	5	0
	OR			
BUS 103	Intermediate Typewriting	2	3	3
BUS 103A	Typewriting Lab	0	5	5
		<u>16</u>	<u>23</u>	<u>18</u>

FOURTH QUARTER

ENG 103	Report Writing	3	0	3
BUS 235	Business Management	3	0	3
BUS 239	Marketing	5	0	5
BUS 232	Sales Development	3	0	3
		<u>14</u>	<u>0</u>	<u>14</u>

FIFTH QUARTER

ENG 206	Business Communication	3	0	3
BUS 243	Advertising	3	2	4
EDP 104	Introduction to Data Processing	3	0	3
	Business Elective	3	0	3
	Social Science Elective	3	0	3
		<u>15</u>	<u>2</u>	<u>16</u>

SIXTH QUARTER

BUS 229	Taxes	3	2	4
BUS 271	Office Management	3	0	3
BUS 271	Principles of Supervision	3	0	3
	Business Elective	3	0	3
	Social Science Elective	3	0	3
		<u>15</u>	<u>2</u>	<u>16</u>

TOTAL QUARTER HOURS IN COURSES 100

\*Satisfactory evidence that admission requirements have been met.



## **BUSINESS EDUCATION GENERAL OFFICE TECHNOLOGY**

### **INTRODUCTION**

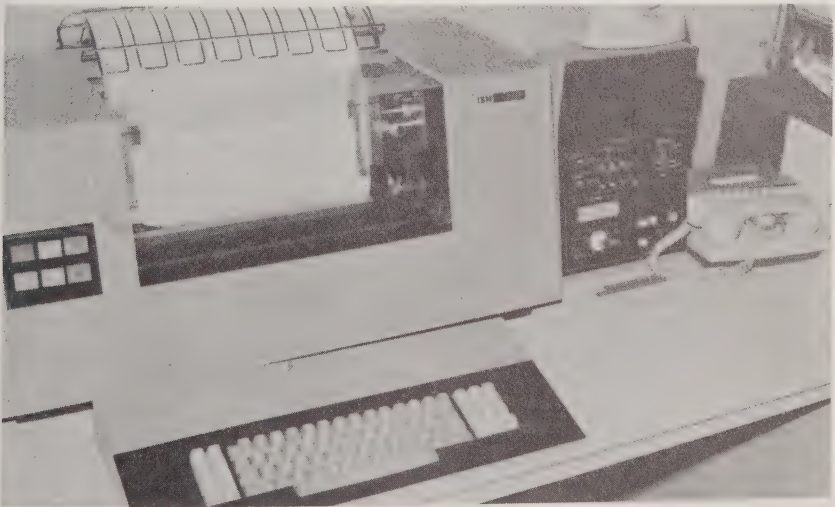
#### **Purpose of Curriculum**

The fear that automation would replace clerical workers was dispelled years ago. The demand for clerical workers increases every year. The category of clerical occupations heads the list in the number of people employed in the United States, and the projection for future demand is equally as bright-office occupations heads the list.

#### **Job Description**

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 key punch are supplemented with general education courses as well as other related business courses.

The General Office Technology graduate will be trained for jobs such as transcribing-machine operator, file clerk, clerk-typist, accounting clerk, book-keeper, keypunch operator, general office worker, receptionist, sales clerk, and a variety of other clerical related jobs.



**BUSINESS EDUCATION  
GENERAL OFFICE TECHNOLOGY  
SUGGESTED CURRICULUM BY QUARTERS**

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
BUS 100	Business Education Orientation	1	0	1
ENG 101S	* Secretarial Grammar	5	0	5
BUS 102	Beginning Typewriting	2	3	3
BUS 102A	Typewriting Lab	0	5	0
	OR			
BUS 103	Intermediate Typewriting	2	3	3
BUS 103A	Typewriting Lab	0	5	0
MAT 110	* Business Mathematics	5	0	5
BUS 134	Personal Grooming	3	0	3
		16	8	17

**SECOND QUARTER**

BUS 101	Introduction to Business	3	0	3
BUS 103	Intermediate Typewriting	2	3	3
BUS 103A	Typewriting Lab	0	5	0
BUS 110	Office Machines	3	2	4
BUS 110A	Office Machines Lab	0	5	0
BUS 113	Machine Transcription I	5	0	5
BUS 130	Secretarial Accounting	2	3	3
		15	18	18

**THIRD QUARTER**

BUS 112	Filing	3	0	3
BUS 104	Advanced Typewriting	2	3	3
BUS 104A	Typewriting Lab	0	5	0
BUS 211	Office Machines	3	0	3
BUS 211A	Office Machines Lab	0	5	0
BUS 114	Machine Transcription II	5	0	5
BUS 131	Secretarial Accounting	2	3	3
		15	16	17

FOURTH QUARTER

ENG 206	Business Communications	3	0	3
BUS 205	Production Typewriting	2	3	3
BUS 205A	Typewriting Lab	0	5	0
BUS 231	Sales & Inventory Procedures	3	0	3
BUS 213	Machine Transcription III	3	0	3
COE 100	Student & Career	3	0	3
COE 101	** Cooperative Education			1-4
	Business Elective	3	0	3
		<u>17</u>	<u>8</u>	<u>19-22</u>

FIFTH QUARTER

ENG 204	Oral Communications	3	0	3
BUS 258	Speed Typewriting	2	3	3
BUS 258A	Typewriting Lab	0	5	0
EDP 105	Keypunch	3	0	3
COE 102	Cooperative Education			1-4
BUS 216	Clerical Procedures	5	0	5
	Social Science Elective	3	0	3
		<u>16</u>	<u>8</u>	<u>18-21</u>

SIXTH QUARTER

ECO 108	Consumer Economics	3	0	3
BUS 259	Applied Office Typewriting	2	3	3
BUS 259A	Applied Office Typewriting Lab	0	5	0
BUS 215	Office Application	4	10	9
	Business Elective	3	0	3
		<u>12</u>	<u>18</u>	<u>18</u>

TOTAL QUARTER HOURS IN COURSES 108-113

\*Satisfactory evidence that admission requirements have been met.

\*\*Variable Credit Hours--10 hours work equates 1 credit hour.

# **BUSINESS EDUCATION SECRETARIAL**

## **INTRODUCTION**

### **Purpose of Curriculum**

The demand for better-qualified secretaries in our ever-expanding business world is becoming more acute. The purpose of this curriculum is to outline a training program that will provide training in the accepted procedures required by the business world and to enable persons to become proficient soon after accepting employment in the business.

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

### **Job Description**

The graduate of the Secretarial Curriculum should have a knowledge of business terminology, skill in dictation, and accurate 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 transcription, is given more responsibility in connection with meeting office callers, screening telephone calls, and being an assistant to an executive. She may enter a secretarial position in a variety of offices in businesses such as insurance companies, banks, marketing institutions, and financial firms.

**BUSINESS EDUCATION  
SECRETARIAL**

**SUGGESTED CURRICULUM BY QUARTERS**

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
ENG 101S	Grammar	5	0	5
BUS 102	Beginning Typewriting	2	3	3
BUS 102A	Typewriting Lab	0	5	0
	OR			
BUS 103	Intermediate Typewriting	2	3	3
BUS 103A	Typewriting Lab	0	5	0
MAT 110	* Business Mathematics	5	0	5
BUS 101	Introduction to Business	3	0	3
BUS 134	Personal Grooming	3	0	3
		<u>18</u>	<u>8</u>	<u>19</u>

**SECOND QUARTER**

ENG 102	Composition	3	0	3
BUS 103	Intermediate Typewriting	2	3	3
BUS 103A	Typewriting Lab	0	5	0
BUS 120	Principles of Accounting	5	0	5
	OR			
BUS 130	Secretarial Accounting	2	3	3
BUS 106	Beginninig Shorthand	5	0	5
BUS 106A	Shorthand Lab	0	5	0
		<u>12-15</u>	<u>13-16</u>	<u>14-16</u>



THIRD QUARTER,

ENG 204	Oral Communications	3	0	3
BUS 104	Advanced Typewriting	2	3	3
BUS 104A	Typewriting Lab	0	5	0
BUS 107	Intermediate Shorthand	5	0	5
BUS 107A	Shorthand Lab	0	5	0
ECO 108	Consumer Economics	3	0	3
BUS 117	Office Machines	3	2	4
BUS 117A	Office Machines Lab	0	5	0
BUS 131	Secretarial Accounting	2	3	3
		<u>18</u>	<u>23</u>	<u>21</u>

FOURTH QUARTER

ENG 206	Business Communication	3	0	3
BUS 205	Production Typewriting	2	3	3
BUS 205A	Typewriting Lab	0	5	0
BUS 108	Advanced Shorthand	5	0	5
BUS 108A	Shorthand Lab	0	5	0
BUS 187	Introduction to Transcription	3	0	3
		<u>13</u>	<u>13</u>	<u>14</u>

FIFTH QUARTER

BUS 206	Dictation & Transcription	5	0	5
BUS 206A	Shorthand Lab	0	5	0
BUS 214	Secretarial Procedures	5	0	5
BUS 170	Key punch & Data Preparation	3	0	3
BUS 258	Speed Typewriting	2	3	3
BUS 258A	Typewriting Lab	0	5	0
BUS 213	Machine Transcription III	3	0	3
		<u>18</u>	<u>13</u>	<u>19</u>

SIXTH QUARTER

BUS 207	Dictation & Transcription	5	0	5
BUS 207A	Shorthand Lab	0	5	0
BUS 271	Office Management	3	0	3
BUS 215	Office Application	4	10	9
		<u>12</u>	<u>15</u>	<u>17</u>

TOTAL QUARTER HOURS IN COURSES                      104-116

\*Satisfactory evidence that admission requirements have been met (Placement tests or MAT 109, ENG 100, and /or ENG 101).



Students having an interest in either the legal or medical fields have the option to specialize. To earn an associate degree in either area, students are required to take additional courses as follows:

MEDICAL

BUS 183M	Medical Terminology & Vocabulary	3	0	3
BUS 284M	Medical Terminology & Vocabulary	3	0	3

LEGAL

BUS 183L	Legal Terminology & Vocabulary	3	0	3
BUS 115	Business Law	3	0	3



## COMMERCIAL ART & GRAPHIC DESIGN

### INTRODUCTION

#### **Purpose of Curriculum**

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 a graduate with a sound, well-rounded background for technical and creative achievement throughout his professional life. Design and illustration for commerce is continually advancing its standards, therefore, the background offered the students must be well developed to prepare him for performance on a contemporary professional level. Graduates of this program will have an adequate background in illustration, layout and lettering, design, and production enabling them to be employed in some facet of the commercial arts.

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, printing and publishing houses.

#### **Job Description**

The graduate may be employed by advertising agencies, design studios, department stores, newspapers, television studios or printing and publishing houses. His 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 & GRAPHIC DESIGN

### SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
CAT 121	Design I	3	6	6
CAT 102	Drawing	1	4	3
ENG 101	Grammar	3	0	3
DFT 101	Technical Drafting	1-0	3-6	2-3
MAT 100	Review of Fundamental Mathematics	5	0	5
		<hr style="width: 100%; border: 0.5px solid black;"/>	<hr style="width: 100%; border: 0.5px solid black;"/>	<hr style="width: 100%; border: 0.5px solid black;"/>
		13	13-16	19-20

### SECOND QUARTER

CAT 122	Design II	3	6	6
CAT 105	Life Study	1	4	3
CAT 110	Survey of Art History	3	0	3
ENG 102	Composition	3	0	3
DFT 102	Technical Drafting	1-0	3-6	2-3
		<hr style="width: 100%; border: 0.5px solid black;"/>	<hr style="width: 100%; border: 0.5px solid black;"/>	<hr style="width: 100%; border: 0.5px solid black;"/>
		11	13-16	17-18



THIRD QUARTER

CAT 123	Layout & Design I	2	6	5
CAT 101	Advertising Principles	3	0	3
PHO 116	Photography	2	4	4
CAT 106	Life Study	1	4	3
ENG 104	Creative Expression	3	0	3
		<u>11</u>	<u>14</u>	<u>18</u>

FOURTH QUARTER

CAT 224	Layout & Design II	3	6	6
CAT 210	Production Techniques	1	4	3
PHO 217	Photography	2	4	4
CAT 212	Advertising Illustration	1	4	3
ENG 204	Oral Communications	3	0	3
		<u>10</u>	<u>18</u>	<u>19</u>

FIFTH QUARTER

CAT 225	Graphic Design I	3	6	6
CAT 214	Type & Letter Form Design	1	4	3
CAT 213	Advertising Illustration	1	4	3
	Social Science Elective	3	0	3
BUS 102	Beginning Typewriting	2	3	3
BUS 102A	Typewriting Lab	0	5	0
	OR			
BUS 103	Intermediate Typewriting	2	3	3
BUS 103A	Typewriting Lab	0	5	0
		<u>10</u>	<u>22</u>	<u>18</u>

SIXTH QUARTER

CAT 226	Graphic Design II	3	6	6
CAT 218	Photomechanical Technology	2	6	5
CAT 235	Advertising Art Director	5	0	5
	Social Science Elective	3	0	3
		<u>13</u>	<u>12</u>	<u>19</u>

TOTAL QUARTER HOURS IN COURSES

110-111

# **ELECTRONIC DATA PROCESSING BUSINESS**

## **INTRODUCTION**

### **Purpose of Curriculum**

The processing of data by electronic equipment has created vast changes in business & industry. Nowhere are these changes more apparent than in the occupations associated with the handling of business information. Much of the routine & time consuming work of obtaining, compiling, and reporting the information necessary for a business to operate can now be adapted to machine processing.

This curriculum is designed to give the student (1) an understanding of the principles of business operation, (2) experience with techniques and handling of business data, and (3) functional competence in the application of data processing systems, and experience in computer programming of business records and accounts, inventory, sales, and income and expenditures essential to business and to management decisions.

Emphasis is upon business data processing and use of machines in solving business problems.

### **Job Description**

The business data processing specialist applies currently available programming techniques to a defined problem with minimum supervision. He analyzes & defines systems requirements to develop a program for electronic data processing; conducts detailed analyses of systems requirements, and develops all levels of block diagrams and logical flow charts. Translates program details into coded instructions; establishes test data; tests, refines, and revises program and documents the procedures. Ascertain if other combinations of instructions would achieve greater flexibility, better machine utilization, or more dependable results.

## ELECTRONIC DATA PROCESSING

### SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
EDP 114	Introduction to Computer Concepts	3	0	3
EDP 115	FORTRAN	2	2	3
MAT 110	* Business Mathematics	5	0	5
BUS 101	Introduction to Business	3	0	3
ENG 101	Grammar	3	0	3
		<u>16</u>	<u>2</u>	<u>17</u>
 <b>SECOND QUARTER</b>				
EDP 118	COBOL I	2	4	4
BUS 120	Principles of Accounting	5	0	5
ENG 102	Composition	3	0	3
MAT 111	Computer Mathematics	5	0	5
PSY 102	General Psychology	3	0	3
		<u>18</u>	<u>4</u>	<u>20</u>
 <b>THIRD QUARTER</b>				
EDP 116	Assembler Language I	2	4	4
EDP 119	COBOL II	2	4	4
BUS 121	Principles of Accounting	5	0	5
ENG 204	Oral Communications	3	0	3
SOC 102	Principles of Sociology	3	0	3
		<u>15</u>	<u>8</u>	<u>19</u>

FOURTH QUARTER

EDP 117	Assembler Language II	2	4	4
EDP 223	RPG	2	4	4
EDP 214	Computer Systems I	2	2	3
BUS 122	Principles of Accounting	5	0	5
BUS 110	Office Machines	3	2	4
BUS 110A	Office Machines Lab	0	5	0
		<u>14</u>	<u>17</u>	<u>20</u>

FIFTH QUARTER

EDP 211	Applications I	2	4	4
BUS 235	Business Management	3	0	3
BUS 225	Cost Accounting	3	2	4
BUS 115	Business Law	3	0	3
ENG 206	Business Communications	3	0	3
		<u>14</u>	<u>6</u>	<u>17</u>

SIXTH QUARTER

EDP 212	Applications II	2	4	4
EDP 216	Systems & Procedures	3	0	3
EDP 217	Applied Business Systems	3	0	3
EDP 222	Data Processing Project	1	8	5
		<u>9</u>	<u>12</u>	<u>15</u>

TOTAL QUARTER HOURS IN COURSES 108

\*Or MAT 109

# ELECTRONICS TECHNOLOGY

## INTRODUCTION

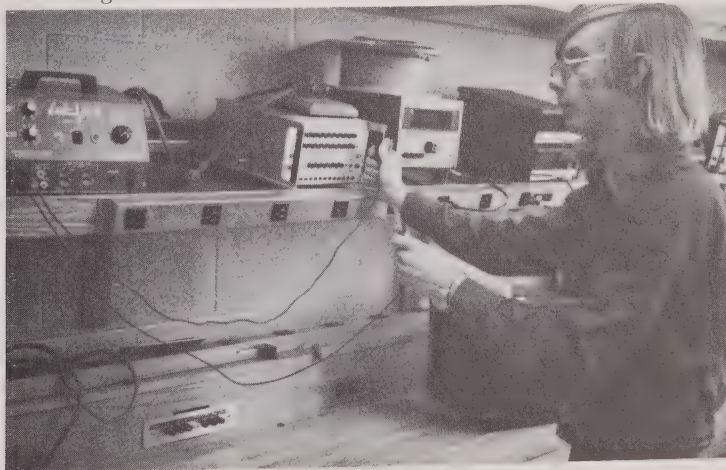
### Purpose of Curriculum

The field of electronics has developed at a rapid pace since the turn of the century. For many years the major concern of electronics was in the area of communications. Developments during World War II and in the period since have revolutionized production techniques. New industries have been established to supplement the need and demand for electronics equipment.

Many opportunities exist for men and women with a technical education in electronics. This curriculum provides a basic background in electronic related theory with practical applications of electronics for business and industry. Courses are designed to develop competent electronics technicians who may take their place as an assistant to an engineer or as a liaison between the engineer and the skilled craftsman.

### Job Description

The electronics technician may start in one or more of the following areas: Research, Design, Development, Production, Maintenance or Sales. He may be an assistant to an engineer, an engineering aide, laboratory technician, supervisor or equipment specialist. His training is similar to that of an engineer, but in less depth and more practical in application. He can function as a liaison between an engineer and the skilled craftsman.





## ELECTRONICS TECHNOLOGY

### SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
ENG 101	Grammar	3	0	3
MAT 102	Technical Mathematics	5	0	5
PHY 101	Technical Physics	3	2	4
PHY 100	Slide Rule	1	0	1
DFT 101	Technical Drafting	1-0	3-6	2-3
ELC 101	Fundamentals of Electricity I	4	4	6
		<u>17</u>	<u>9-12</u>	<u>21-22</u>

### SECOND QUARTER

ENG 102	Composition	3	0	3
MAT 103	Technical Mathematics	5	0	5
PHY 102	Technical Physics	3	2	4
DFT 102	Technical Drafting	1-0	3-6	2-3
ELC 102	Fundamentals of Electricity II	5	4	7
		<u>17</u>	<u>9-12</u>	<u>21-22</u>

### THIRD QUARTER

ENG 204	Oral Communications	3	0	3
MAT 104	Technical Mathematics	5	0	5
ELN 101	Electronic Instruments & Measurements	1	4	3
PHY 104	Technical Physics	3	2	4
ELN 105	Control Devices	5	4	7
		<u>17</u>	<u>10</u>	<u>22</u>

FOURTH QUARTER

ENG 103	Report Writing	3	0	3
MAT 201	Technical Mathematics	5	0	5
ELN 205	Application of Vacuum Tubes & Transistors	5	4	7
ELC 210	Rotating Devices	2	2	3
		<u>15</u>	<u>6</u>	<u>18</u>

FIFTH QUARTER

ELN 211P	Communication Circuits	3	6	5
ELN 214	Wave Shaping & Pulse Circuits I	2	3	3
ELN 210	Semiconductor Circuit Analysis	5	3	6
	Social Science Elective	3	0	3
		<u>13</u>	<u>12</u>	<u>17</u>

SIXTH QUARTER

ELN 235	Industrial Instrumentation	3	3	4
ELN 215	Wave Shaping & Pulse Circuits II	4	4	6
ELN 220	Electronics Systems	5	4	7
	Social Science Elective	3	0	3
		<u>15</u>	<u>11</u>	<u>20</u>

TOTAL QUARTER HOURS IN COURSES 119-121

# **FOOD SERVICE SUPERVISION**

## **INTRODUCTION**

### **Purpose of Curriculum**

The food service industry, the third largest industry in the nation, has undergone many changes and substantial expansion during the past two decades. Increases in population, greater per capita income, increased leisure time with more people eating away from home, new food production methods, and improved equipment requiring greater operative skills, have created an unprecedented demand for well trained personnel. To maintain the industry's present rate of growth, indications are that the food service industry will require no less than 250,000 new workers every year for the next ten years. Of this number, 75,000 workers will be required for newly created jobs in food service, while ten percent or 25,000 new workers will be required in the category called "management and supervisory." Although the demand for employees, quantitatively, is great in the food service industry, quality is the principal manpower need.

The major purpose of the Food Service Supervision curriculum is to train and make available for employment qualified personnel as well as provide upgrading and retraining opportunities for those presently employed.

### **Job Description**

Graduates of the Food Service Supervision Program will qualify for beginning managerial and supervisory positions in restaurants and the food service operations of clubs, hotels-motels, colleges, department stores, industrial plants, institutions, hospitals, and schools.

## FOOD SERVICE SUPERVISION

### SUGGESTED CURRICULUM BY QUARTER

		Course Title	C	L	CH
<b>FIRST QUARTER</b>					
ENG	101	Grammar	3	0	3
HOME	5	* Food	2	6	5
MAT	101	Technical Mathematics	5	0	5
CHM	101	Chemistry (Refresher)	4	2	5
BUS	134	Personal Grooming	3	0	3
			17	8	21

### SECOND QUARTER

ENG	102	Composition	3	0	3
HOME	105	Nutrition	3	0	3
BIO	114	Human Anatomy & Physiology	4	2	5
BUS	115	Business Law	3	0	3
BUS	101	Introduction to Business	3	0	3
			16	2	17

### THIRD QUARTER

MAT	110	* Business Math	5	0	5
ENG	103	Report Writing	3	0	3
HOME	205	Advanced Food	2	6	5
HOME	303	Food for Children	2	2	3
HEA	110	First Aid	2	2	3
			14	10	19

### FOURTH QUARTER

CSP	110	Food Service Practicum I*	4	36	8
ENG	204	Oral Communications**	3	0	3
PSY	206	Applied Psychology**	3	0	3
			10	36	14

\*Course will be taken first half of summer school.  
 \*\*Course will be taken second half of summer school.

#### FIFTH QUARTER

HOME 327	Food Purchasing & Cost Control	1	4	3
HOME 328	Quantity Food	2	6	5
CSP 203	Food Service Practicum II	1	9	4
BUS 120	Principles of Accounting	5	0	5
		<u>9</u>	<u>19</u>	<u>17</u>

#### SIXTH QUARTER

HOME 330	Institution Management & Organization	3	0	3
HOME 360a	Independent Study (Institution Equipment)	3	0	3
ENG 206	Business Communication	3	0	3
CSP 214	Food Service Practicum III	1	9	4
		<u>10</u>	<u>9</u>	<u>16</u>

#### SEVENTH QUARTER

BUS 272	Principles of Supervision	3	0	3
ECO 102	Economics	3	0	3
BUS 102	Beginning Typewriting	2	3	3
BUS 235	Business Management	3	0	3
SOC 102	Principles of Sociology	3	0	3
		<u>14</u>	<u>3</u>	<u>15</u>

TOTAL QUARTER HOURS IN COURSES 119

+Courses with a letter prefix HOME will be taught at East Carolina University.



# MENTAL HEALTH ASSOCIATE

## INTRODUCTION

### Purpose of Curriculum

The curriculum is designed to prepare qualified persons to function as members of the mental health team. The role may be interdisciplinary in nature or may consist of duties related primarily to a particular discipline. In either case, the mental health associate functions under the direct supervision of a professional member of the mental health team.

Course work provides a foundation of knowledge from sociology, psychology, and mental health. Laboratory and field experiences provide opportunities to develop human relations skills, to gain an overview of mental health services provided by various types of facilities, and to develop understanding of the role of the mental health associate within the framework of a team approach to community mental health.

The two-year preparatory curriculum provides a general foundation for participation in mental health activities. Further development of interpersonal skills and the learning of specialized tasks should result from planned on-the-job learning experiences. Effective utilization of the mental health associate requires the following:

- Thorough, planned orientation to the employing agency and to the role of the mental health associate within the agency;
- Provision for professional supervision;
- Provision for extension of duties or specialization through on-the-job training and in accordance with demonstrated aptitudes of individuals.

### Job Description

The mental health associate may work in mental health facilities providing residential patient care or in community facilities providing a variety of patient services.

The specific tasks performed by the mental health associate will vary from one type of facility to another and according to personal skills and interests. The mental health associate who demonstrates skill in interpersonal relations may be

assigned to work with patients and families to collect data, to interpret agency policies and procedures, to assist with the implementation of the therapeutic plan, and to maintain liaison with other personnel and with other community agencies. Mental health associates may assist professional personnel in assimilating and maintaining records, in tabulating data, and in performing structured tasks of a clerical nature but requiring knowledge of psychiatric or psychological terminology.

## MENTAL HEALTH ASSOCIATE

### SUGGESTED CURRICULUM BY QUARTERS

Course Title	C	L	CH	
<b>FIRST QUARTER</b>				
ENG 101	Grammar	3	0	3
PSY 101	Introduction to Psychology	5	0	5
SOC 101	Introduction to Sociology	5	0	5
MHA 111	Introduction to Mental Health	<u>3</u>	<u>3</u>	<u>4</u>
		16	3	17
<b>SECOND QUARTER</b>				
ENG 102	Composition	3	0	3
PSY 211	Behavior Disorder I: Theory	5	0	5
MHA 100	Mental Health Orientation	3	3	4
MHA 112	Group Processes I	1	3	2
MHA 112P	Practicum I	<u>0</u>	<u>6</u>	<u>2</u>
		12	12	16
<b>THIRD QUARTER</b>				
ENG 103	Report Writing	3	0	3
PSY 120	Human Growth & Development	3	0	3
PSY 222	Exceptional Child	5	0	5
MHA 114	Social Agency Interviewing	3	6	5
MHA 113	Group Processes II	1	3	2
MHA 113P	Practicum II	<u>0</u>	<u>6</u>	<u>2</u>
		15	15	20

FOURTH QUARTER

MHA 115	Field Internship in Community Health	<u>7</u>	<u>33</u>	<u>18</u>
		7	33	18

FIFTH QUARTER

ENG 204	Oral Communications	3	0	3
PSY 212	Behavior Disorder II: Modification	3	4	5
SSC 212	Marriage & the Family	3	0	3
MHA 220	Introduction to Occupational & Recreational Therapy	3	0	3
MHA 210	Group Dynamics I	1	3	2
MHA 210P	Practicum III	<u>0</u>	<u>6</u>	<u>2</u>
		13	13	18

SIXTH QUARTER

MHA 131	Readings in Mental Health	1	0	1
132				
133				
PSY 225	Introduction to Psychological Testing	2	3	3
PSY 219	Introduction to Personality	5	0	5
MHA 211	Group Dynamics II	1	3	2
MHA 211P	Practicum IV	<u>0</u>	<u>6</u>	<u>2</u>
		9	12	13

SEVENTH QUARTER

	Mental Health Elective	5	0	5
PSY 230	The Psychology & Physiology of Aging	3	0	3
MHA 215	Mental Health Seminar	3	0	3
MHA 215P	Practicum V	<u>0</u>	<u>6</u>	<u>2</u>
		11	6	13

\*MHA 115 may be also scheduled after completion of three quarters or fifty-three quarter hours.

## POLICE SCIENCE

### INTRODUCTION

#### Purpose of Curriculum

Today's law enforcement officer must be knowledgeable in many areas if he is to function effectively in our complex society. He is expected to handle matters dealing with human relations, often handled by those trained in the behavioral sciences, he frequently has to act in legal matters requiring trained law personnel much deliberation to resolve; he must be skilled in the most recent operational techniques in order to insure equality of justice to all.

To this end, the Police Science Program is dedicated to the purpose of developing proficiency in both preservice high school graduates and inservice law enforcement personnel. Its development is based on present and future educational needs. It 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.

There is an increasing demand for properly trained law enforcement officers in industry, municipal, county, state, and federal agencies, and there is every reason to believe that the highly trained law enforcement officer will find challenging opportunities with public and private law enforcement services.

#### Job Description

Law enforcement is that important division of government which is assigned the power and responsibility of maintaining order and enforcing the law. Its basic functions may be classified as prevention of crime, suppression of criminal activity, apprehension of offenders, preservation of the peace, regulation of noncriminal conduct, and the protection of life and property.

To the original and primary police functions of preserving 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.

## POLICE SCIENCE

### SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
ENG 101	Grammar	3	0	3
MAT 101	Technical Mathematics	5	0	5
PSC 101	Introduction to Police Science	5	0	5
PSC 112	Motor Vehicle Laws	3	0	3
PSY 102	General Psychology	3	0	3
		<u>19</u>	<u>0</u>	<u>19</u>

### SECOND QUARTER

ENG 102	Composition	3	0	3
SOC 102	Principles of Sociology	3	0	3
PSC 102	Introduction to Criminology	3	0	3
POL 102	National Government	3	0	3
PSC 220	Organization & Administration	5	0	5
HEA 110	First Aid	2	2	3
		<u>19</u>	<u>2</u>	<u>20</u>

### THIRD QUARTER

ENG 204	Oral Communications	3	0	3
POL 103	State & Local Government	3	0	3
PSC 221	Police Supervision	3	0	3
PSC 110	Police Role in Crime & Delinquency	5	0	5
PSC 113	Identification Techniques	3	2	4
PSC 103	Penology & the N.C. Correction System	3	0	3
		<u>20</u>	<u>2</u>	<u>21</u>

#### FOURTH QUARTER

ENG 103	Report Writing	3	0	3
CHM 101	Chemistry	4	2	5
PSC 201	Traffic Planning & Management	4	2	5
PSC 202	Police Community Relations	2	0	2
PSC 115A	Criminal Law I	3	0	3
		<u>16</u>	<u>4</u>	<u>18</u>

#### FIFTH QUARTER

PSY 207	Applied Police Psychology	3	0	3
PSC 204	Police Science Photography	3	2	4
PSC 115B	Criminal Law II	3	0	3
PSC 211	Introduction to Criminalistics	4	2	5
PSC 209	Interviews & Interrogations	3	0	3
PSC 225	Criminal Procedure	2	0	2
		<u>18</u>	<u>4</u>	<u>20</u>

#### SIXTH QUARTER

PSC 205	Criminal Evidence	3	0	3
PSC 210	Criminal Investigation	4	2	5
PSC 235	Introduction to Forensic Science	3	2	4
PSC 240	Firearms & Defensive Tactics	4	2	5
PSC 230	Current Law Studies	3	0	3
	OR			
BUS 102	Typing	2	3	3
		<u>16-17</u>	<u>6-9</u>	<u>20</u>

TOTAL QUARTER HOURS IN COURSES 118

#### Credit for Previous Non-Credit Courses

In the past, many law enforcement officers have participated in the extension type courses in law enforcement offered through the community college



system. Inquiries have been received concerning the awarding of credit for these courses when persons enroll in a law enforcement degree program. Credit for courses can be given; however, it is suggested that the credit not exceed the following limits:

- (1) Introduction to Police Science.....5 quarter hours  
This course may be utilized to replace PSC 101 - Introduction to Police Science
- (2) Police Supervision.....5 quarter hours  
This course may be utilized to replace PSC 221 - Police Supervision.
- (3) Criminal Investigation.....5 quarter hours  
This course may be utilized to replace PSC 210, Criminal Investigation.

It is further suggested that students who participate in the above extension courses after July 1, be asked if they wish to take the course for credit. If they choose to do so, they should be enrolled as part-time curriculum students and enrollment should be in the appropriate manner.



## POLICE SCIENCE

### INSERVICE OFFICER

In addition to the regular curriculum, the Police Science 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. If he is working during the day, he can attend classes at night and vice versa or he can rotate back and forth between the day and night classes if he is working a swing shift.

It is recognized that the inservice officer must divide his time between his personal life, his job, and his school; therefore, 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.

### POLICE SCIENCE INSERVICE OFFICER

#### SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
FIRST QUARTER				
ENG 101	Grammar	3	0	3
PSC 112	Motor Vehicle Laws	3	0	3
PSC 102	General Psychology	3	0	3
		<u>9</u>	<u>0</u>	<u>9</u>
SECOND QUARTER				
ENG 102	Composition	3	0	3
SOC 102	Principles of Sociology	3	0	3
POL 102	National Government	3	0	3
		<u>9</u>	<u>0</u>	<u>9</u>

### THIRD QUARTER

ENG 204	Oral Communications	3	0	3
POL 103	State & Local Government	3	0	3
PSC 110	Police Role in Crime & Delinquency	<u>5</u>	<u>0</u>	<u>5</u>
		11	0	11

### FOURTH QUARTER

MAT 101	* Technical Mathematics	5	0	5
PSC 101	Introduction to Police Science	<u>5</u>	<u>0</u>	<u>5</u>
		10	0	10

### FIFTH QUARTER

PSC 102	Introduction to Criminology	3	0	3
PSC 220	Organization & Administration	5	0	5
HeA 110	First Aid	<u>2</u>	<u>2</u>	<u>3</u>
		10	2	11

### SIXTH QUARTER

PSC 221	Police Supervision	3	0	3
PSC 113	Identification Techniques	3	2	4
PSC 103	Penology & the N.C. Correction System	3	2	3
		<u>9</u>	<u>2</u>	<u>10</u>

### SEVENTH QUARTER

PSC 202	Police Community Relations	2	0	2
PSC 115A	Criminal Law I	3	0	3
CHM 101	Chemistry	<u>4</u>	<u>2</u>	<u>5</u>
		9	2	10

EIGHTH QUARTER

PSY 207	Applied Police Psychology	3	0	3
PSC 204	Police Science Photography	3	2	4
PSC 115B	Criminal Law II	3	0	3
		<u>9</u>	<u>2</u>	<u>10</u>

NINTH QUARTER

PSC 205	Criminal Evidence	3	0	3
PSC 210	Criminal Investigation	4	2	5
PSC 230	Current Law Studies	3	0	3
	OR			
BUS 102	Typing	2	3	3
		<u>9-10</u>	<u>2-5</u>	<u>11</u>

TENTH QUARTER

PSC 201	Traffic Planning & Management	4	2	5
ENG 103	Report Writing	3	0	3
		<u>7</u>	<u>2</u>	<u>8</u>

ELEVENTH QUARTER

PSC 211	Introduction to Criminalistics	4	2	5
PSC 209	Interviews & Interrogations	3	0	3
PSC 225	Criminal Procedure	2	0	2
		<u>9</u>	<u>2</u>	<u>10</u>

TWELFTH QUARTER

PSC 235	Introduction to Forensic Science	3	2	4
PSC 240	Firearms & Defensive Tactics	4	2	5
		<u>7</u>	<u>4</u>	<u>9</u>

TOTAL QUARTER HOURS IN COURSES 118

\*Satisfactory evidence that admission requirements have been met.

## AGRICULTURE

	C	L	CH
<b>AGR 103 Feeding &amp; Management</b>	<b>2</b>	<b>0</b>	<b>2</b>
A study of applied principles and concepts of animal nutrition. Problems associated with feeding livestock, nutritional diseases, balancing rations, feed additives, feedstuffs, anatomy and physiology of the digestive systems of farm animals. The study includes management and economic problems associated with the feeding and marketing of livestock.			
<b>AGR 105 Pastures &amp; Forage Crops</b>	<b>2</b>	<b>0</b>	<b>2</b>
A study of the major grasses & legumes of economic importance in North Carolina. Attention will be given to management; soil types, fertilization, harvesting, and nutrient value.			
<b>AGR 105A Pastures &amp; Forage Crops Lab</b>	<b>0</b>	<b>5</b>	<b>0</b>
Field application of pastures & forage crop production techniques to accompany classroom instruction.			
<b>AGR 107 Farm Records &amp; Taxes</b>	<b>3</b>	<b>0</b>	<b>3</b>
An introductory course to accounting methods related to the farm business which acquaints the student with terminology, basic principles and techniques used in recording transactions. Practical application of the principles learned are made by working with actual farm situations. A study of taxes as related to farm income, forms, deductions, depreciation, and tax schedules applicable to farmers.			
<b>AGR 119 Techniques of Welding</b>	<b>1</b>	<b>3</b>	<b>2</b>
Principles of oxyacetylene & electrical welding, cutting, and brazing. Principles, procedures, safety precautions, and experience in using oxyacetylene & arc equipment. Projects are assigned to develop skill in the use of equipment. Projects are assigned to develop skill in the use of equipment. Includes the study of metals, rods, gases, and special electric welding machinery.			
<b>AGR 121 Crop Production</b>	<b>2</b>	<b>2</b>	<b>3</b>
A study of the characteristics of field crops relative to varieties, environmental factors, rotations, fertilization, control of pests and cultural practices pertinent to crop production.			
<b>AGR 125 Animal Science</b>	<b>5</b>	<b>2</b>	<b>6</b>
An introductory animal science course covering the fundamental principles of livestock production. A study of the animal body and the basic principles of reproduction, genetics, growth, fattening, digestion, along with the selection, feeding, improvement, processing, and marketing of livestock.			



<b>AGR 127 Animal Nutrition</b>	<b>3</b>	<b>0</b>	<b>3</b>
A course dealing with the principles of nutrition and their application to feeding practices of cattle, horses, sheep, and swine production in North Carolina. Prerequisite: AGR 125			
<b>AGR 128 Farm &amp; Home Construction</b>	<b>2</b>	<b>4</b>	<b>4</b>
This course deals with the fundamentals of farm carpentry, fences, concrete & masonry. Part of the course gives students an opportunity to learn & practice home construction projects such as kitchen cabinets. The study also includes the farm water needs & waste disposal. Attention is given to planning farm water & plumbing systems & their proper care & maintenance.			
<b>AGR 135 Agricultural Law</b>	<b>3</b>	<b>0</b>	<b>3</b>
A general course designed to acquaint the student with certain fundamentals & principles of law, including contracts, agency & negotiable instruments. Includes the general study of law pertaining to partnership, corporation, sales, suretyship, bailments, and real property.			
<b>AGR 136 Agricultural Math</b>	<b>3</b>	<b>0</b>	<b>3</b>
This course stresses the fundamental operations & their application to business problems. Topics covered include payrolls, price marking, interest & discount, commission, taxes & pertinent use of mathematics in the field of business.			
<b>AGR 143 New Sources of Farm Income</b>	<b>2</b>	<b>0</b>	<b>2</b>
This is a study of new areas of production that are not in practice in the student's present farming program. The farm enterprise system will be analyzed and new enterprises suggested. Provisions of contract farming in the production of poultry, livestock, fruits, & vegetables for the processing industry.			
<b>AGR 170 Plant Science</b>	<b>5</b>	<b>2</b>	<b>6</b>
An introductory general botany and crop science course covering the fundamental principles of the reproduction, growth, functions, and development of seed bearing plants with application to certain commercially important plants in North Carolina.			
<b>AGR 185 Soil Science and Fertilizers</b>	<b>5</b>	<b>2</b>	<b>6</b>
A course dealing with basic principles of efficient classification, evaluation, and management of soils; care, cultivation and fertilization of the soil, and conservation of soil fertility.			
<b>AGR 187 Fertilizers and Lime</b>	<b>3</b>	<b>2</b>	<b>4</b>
A review of the source, function, and use of the major and minor plant food elements; commercial fertilizer ingredients; soil acidity, liming materials; application of fertilizer and liming materials.			
<b>AGR 201 Agricultural Chemicals [Pesticides]</b>	<b>3</b>	<b>2</b>	<b>4</b>
A study of agricultural chemicals--their importance, ingredients, formulation &			



application with emphasis upon the effective and safe utilization of chemicals in agricultural pest control. Major emphasis is placed upon weed identification and those chemicals utilized for weed control. Part of the course is devoted to those chemicals other than herbicides--such as insecticides, fungicides, & others.  
Prerequisite: AGR 145 or permission of instructor.

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

A study and practical exercise in the correct application of pesticides and fertilizers. Economics of custom application; equipment, precautions, and legal aspects of application are presented.  
Prerequisites: AGR 145, AGR 165.

**AGR 204 Agricultural Economics & Farm Records    3                    2                    4**

An introduction to economics, the functions of the economic system and agriculture's role in the economy. The study of economic principles as applied to the decision making process in the analysis of farm records.

**AGR 205 Agricultural Marketing                                    3                    2                    4**

An analysis of the functions of marketing in the economy and a survey of the problems marketing faces. 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. Discussion of procedures of marketing such commodities as grain, cotton, livestock and tobacco.  
Prerequisite: AGR 104 or permission of instructor.

**AGR 215 Farm Machinery Repair & Maintenance    3                    2                    4**

Care, repair, and selection of the large units of farm equipment operating principles of self propelled and tractor drawn equipment will be studied in the classroom and the field. Such equipment as balers, combines, corn pickers, cotton pickers, and peanut harvesters will be included.

**AGR 218 Agricultural Mechanization                            3                    2                    4**

A study of farm machinery management and labor saving devices. The economics of selection and operation of farm machinery. Study and evaluation of feed grinders and mixers, storage facilities, materials handling systems, and other labor saving devices.

**AGR 222 Farm Electrification                                        3                    2                    4**

A study of the basic principles and systems and their application to agricultural production with emphasis upon equipment for controlling the utilization of electricity.

**AGR 222A Farm Electrification Lab                                0                    5                    0**

Application of basic principles & systems to the agricultural production with emphasis upon equipment for controlling the utilization of electricity.

**AGR 228 Plant and Animal Diseases** 3 2 4  
 Germ theory of disease as applied to plant and animal production. Consists of a study of the most common plant and animal diseases, their symptoms, prevention, and control measures.

**AGR 245 Crop Insects** 3 2 4  
 A study of common local crop insects, their economic importance, identification, life cycle and host. Student field trips studying insect damage will be stressed.

**AGR 247 Pesticides--Their Use in Home & Community** 2 2 3  
 A study of the use of pesticides, their function, ingredients, beneficial aspects & environmental hazards, stressing safe application & handling. Biological & other alternative methods of pest control will be studied.

**AGR 272 Tobacco Production** 3 2 4  
 A review of the economic importance of tobacco in North Carolina and a detailed study of all aspects of the production and marketing of tobacco with a brief look at the processing and manufacturing phases.  
 Prerequisite: AGR 170.

**AGR 272A Tobacco Production Lab** 0 5 0  
 Field application of tobacco production techniques to accompany classroom instruction.

**AGR 278 Weed Identification and Control** 3 2 4  
 A study of the identification and control of the annual and perennial weeds of economic importance in North Carolina.  
 Prerequisite: None.

**AGR 279 Farm Forestry** 3 2 4  
 A course dealing with the fundamentals of forestry & farm forestry problems including planting, thinning, protecting, harvesting, and marketing.

**AGR 285 Soil Fertility** 3 2 4  
 A course dealing with soil fertility principles. The application of these principles to the North Carolina soils, soil fertility evaluation and soil conservation practices.  
 Prerequisite: AGR 185.

**AGR 290 Soil and Water Conservation** 3 2 4  
 An introduction to soil and water conservation, covering what is included and who is involved in soil, water, and plant conservation, the available resources to carry out soil and water conservation measures, and the relationship of specialized knowledge in agronomy, biology, economics, engineering, soils, forestry and recreation.

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

A review of the public agricultural programs and agencies that provide services for agricultural producers. The objectives, organization, functions, and services of these organizations.

**ARCHITECTURE**

**ARC 106 Architectural Drafting**                    2                    6                    4

A course designed to provide fundamental knowledge of the principles of drafting. Basic skills and techniques of drafting included are: use of drafting equipment, lettering, pictorial sketching, geometric construction, orthographic instrument drawing of principal views. Projection problems dealing with principles of descriptive geometry involving points, lines, planes, and solids. The 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                    4

Development of techniques in architectural lettering, symbols, dimensioning, freehand and instrument drafting. Drawing of complete set of working drawings for a residence, construction details, using appropriate material symbols and connections. Section, scale details and full size details will be prepared from preliminary sketches. Applications of descriptive geometry are used in visualization and analytical solutions of the drafting problems involving auxiliary views, intersections and developments.

Prerequisite: ARC 106.

**ARC 108 Architectural Drafting**                    0                    9                    3

An approach indepth to the study of architectural drafting. Development of techniques in architectural lettering, dimensioning, freehand sketching, and instrument drawing. Drawings of construction details, using appropriate material symbols. This is a continuation of ARC 107 and includes an introduction to commercial working drawings. Working drawings, including plans, elevations, sketches, scale details, and full size details will be prepared from preliminary sketches.

Prerequisites: ARC 107, AHR 106, CIV 105.

**ARC 220 Architectural Drafting**                    2                    9                    5

This course includes commercial working drawings, material used in commercial buildings, and systems of construction. 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 will be studied. Reference materials will be used to provide the draftsman with skills and knowledge in locating data and in using handbooks.

Prerequisite: ARC 108.

**ARC 221 Architectural Drafting** 2 9 5

Group projects involving coordinating of complete set of working drawings for commercial work. Consideration is given to coordination of mechanical and electrical features with structural and architectural components. Two week problem in model building or architectural presentation work.

Prerequisite: ARC 220.

**ARC 222 Architectural Drafting** 2 9 5

Preparation of the complete set of working drawings for the architectural structure, coordinating floor plans, elevations, wall sections, and details. Site and landscaping plans will be studied and drawn. Final assembly of the complete document for construction purposes will be made.

Prerequisites: ARC 221, CIV 101, DFT 235.

**ARC 233 Office Practice Seminar** 2 0 2

A study of the professional relationship of the architectural firm in relation to clients, contractors, suppliers, consultants, and other architects. Ethics of the profession as applicable to the draftsman's role in the architectural firm will be stressed.

Prerequisite: None.

## **ARCHITECTURAL EQUIPMENT (MECHANICAL)**

**AHR 106 Architectural Mechanical Equipment** 3 3 4

General study of heating, air conditioning, plumbing and electrical equipment, materials and symbols. Building code requirements pertaining to residential and commercial structures. Reading and interpretation of working drawings by mechanical engineers. Coordination of mechanical and electrical features with structural and architectural designs.

Prerequisite: None.

## **BIOLOGY**

**BIO 114 Human Anatomy and Physiology** 4 2 5

A study of the structure and normal functions of the human body and its related systems with emphasis upon the interrelated functions of various parts and systematic processes in the development of basic physiological principles.



## BUSINESS

**BUS 100 Business Education Orientation**                    1                    0                    1

An 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 and field trips to local business offices.

**BUS 101 Introduction to Business**                    3                    0                    3

A survey of the business world with particular attention devoted to the structure of the various types of business organizations, methods of financing, internal organization, and management.

**BUS 102 Beginning Typewriting**                    2                    3                    3

Emphasis on study of the keyboard, the mechanics of the typewriter necessary for the acquisition of elementary typewriting skills, and development of speed and accuracy. Course is designed for self-paced instruction.

**BUS 102A Typewriting Lab**                    0                    5                    0

A skill building lab to accompany the typewriting class.

**BUS 103 Intermediate Typewriting**                    2                    3                    3

Development of speed and accuracy with further mastery of correct typewriting techniques, as applied in tabulation, manuscript, correspondence, and business forms. Course is designed for self-paced instruction.

Prerequisite: BUS 102 or equivalent.

**BUS 103A Typewriting Lab**                    0                    5                    0

A skill building lab to accompany the typewriting class.

**BUS 104 Advanced Typewriting**                    2                    3                    3

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. Course is designed for self-paced instruction.

Prerequisite: BUS 103.

**BUS 104A Typewriting Lab**                    0                    5                    0

A skill building lab to accompany the typewriting class.

**BUS 106 Beginning Shorthand**                    5                    0                    5

A beginning course in the theory and practice of reading and writing Gregg Shorthand. Emphasis on phonetics, penmanship, word families, brief forms, and phrases.

Prerequisite: ENG 101S.

<b>BUS 106A Shorthand Lab</b>	<b>0</b>	<b>5</b>	<b>0</b>
Dictation practice in shorthand lab to accompany shorthand class.			
<b>BUS 107 Intermediate Shorthand</b>	<b>5</b>	<b>0</b>	<b>5</b>
Continued study of theory with greater emphasis on dictation and elementary transcription.			
Prerequisite: BUS 106 or equivalent.			
<b>BUS 107A Shorthand Lab</b>	<b>0</b>	<b>5</b>	<b>0</b>
Dictation practice in shorthand lab to accompany shorthand class.			
<b>BUS 108 Advanced Shorthand</b>	<b>5</b>	<b>0</b>	<b>5</b>
Review of shorthand principles, daily speed practice, and development of greater dictation and transcription speed.			
Prerequisite: BUS 107.			
Corequisite: BUS 187.			
<b>BUS 108A Shorthand Lab</b>	<b>0</b>	<b>5</b>	<b>0</b>
Dictation practice in shorthand lab to accompany shorthand class.			
<b>BUS 110 Office Machines</b>	<b>3</b>	<b>2</b>	<b>4</b>
Training in techniques, processes, operations, and application of the ten-key adding machines, full keyboard adding machines, and electronic and rotary calculators. Course is designed for self-paced instruction.			
Prerequisite: MAT 109 or equivalent.			
<b>BUS 110A Office Machines Lab</b>	<b>0</b>	<b>5</b>	<b>0</b>
A skill building lab to accompany office machines class.			
<b>BUS 112 Filing</b>	<b>3</b>	<b>0</b>	<b>3</b>
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.			
<b>BUS 113 Machine Transcription I</b>	<b>5</b>	<b>0</b>	<b>5</b>
An introductory course in the correct techniques of operating the dictating and transcribing units, plus such fundamentals of transcription as spelling, punctuation, grammar, letter placement, and the use of reference materials.			
Prerequisite: BUS 103, ENG 101S.			
<b>BUS 114 Machine Transcription II</b>	<b>5</b>	<b>0</b>	<b>5</b>
A continuation of BUS 113 with additional emphasis on mailability of business correspondence.			
Prerequisite: BUS 113.			
<b>BUS 115 Business Law</b>	<b>3</b>	<b>0</b>	<b>3</b>
A study of the law as it applies to ordinary business transactions, including the law of contracts, agency and employment and commercial paper. The purpose is			



to give students an awareness of various legal problems that frequently arise in business and social life.

**BUS 116 Business Law** 3 0 3

A continuation of BUS 115. Includes the law of personal property and bailments, sales, insurance, and torts.

**BUS 117 Office Machines** 3 2 4

Operation of the machines used in duplicating and calculating processes. An understanding of the functions of each machine and how it simplifies office work will be developed. An appreciation for accuracy of machine work should be developed as well as duplicating and calculating machines vocabulary. Course is designed for self-paced instruction.

Prerequisites: BUS 102 & MAT 109.

**BUS 117A Office Machines Lab** 0 5 0

A skill building lab to accompany office machines class.

**BUS 120 Principles of Accounting** 5 0 5

A study of the basic accounting concepts as applied to a single proprietorship. Practical problems requiring students to use journals and general ledgers, preparation and analysis of work sheets, the balance sheet and income statement. Introduction to basic concepts of internal control.

Prerequisite: MAT 109 or equivalent.

**BUS 121 Principles of Accounting** 5 0 5

An expanded study of the accounting cycle with emphasis on the recording, summarizing, and interpreting of data for management control rather than on bookkeeping skills. Includes a study of payrolls, Federal & State taxes, and basic applications of computerized accounting.

Prerequisite: BUS 120.

**BUS 122 Principles of Accounting** 5 0 5

Partnership and corporation accounting, including a study of financial statement analysis and the use of financial ratios.

Prerequisite: BUS 121.

**BUS 123 Business Finance** 3 0 3

Financing of business units, as individuals, partnerships, corporations, and trusts. A detailed study of short-term, long-term, and consumer financing.

**BUS 130 Secretarial Accounting** 2 3 3

Record keeping involving the use of one book of original entry, emphasizing clarity and completeness in the presentation of the bookkeeping cycle.

Prerequisite: MAT 109.

**BUS 131 Secretarial Accounting** 2 3 3

Record keeping involving the use of special journals and subsidiary ledgers in the presentation of the bookkeeping cycle, including an introduction to automated

data processing.  
Prerequisite: BUS 130.

**BUS 134 Personal Grooming** 3 0 3

Designed to help the student recognize the importance of physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on poise, grooming, and methods of personal improvement.

**BUS 183E Terminology & Vocabulary: Executive** 3 0 3

Terminology and vocabulary appropriate to the course of study as it is used in business, technical, and professional offices.  
Prerequisite: BUS 107.

**BUS 183L Terminology & Vocabulary: Legal** 3 0 3

Terminology and vocabulary appropriate to the course of study as it is used in business, technical, and professional offices.  
Prerequisite: BUS 107.

**BUS 183M Medical Terminology & Vocabulary** 3 0 3

Terminology and vocabulary appropriate to the course of study as it is used in business, technical, and professional offices.  
Prerequisite: BUS 107.

**BUS 187 Introduction to Transcription** 3 0 3

Integration of the necessary skills for transcribing at the typewriter. This course is to be taken concurrently with BUS 108.  
Prerequisite: BUS 107.

**BUS 205 Production Typewriting** 2 3 3

Development of individual production rates. Techniques needed in planning and in typing projects that closely approximate the work appropriate to the field of study.  
Prerequisite: BUS 104.

**BUS 205A Typewriting Lab** 0 5 0

A skill building lab to accompany typewriting class.

**BUS 206 Dictation & Transcription** 5 0 5

Development of dictation and transcription skills with emphasis on mailable copy.  
Prerequisite: BUS 108 & BUS 187.

**BUS 206A Shorthand Lab** 0 5 0

Dictation practice in shorthand lab to accompany shorthand class.

**BUS 207 Dictation & Transcription** 5 0 5

Further development of dictation & transcription skills with emphasis on mailable copy.  
Prerequisite: BUS 206.

<b>BUS 207A Shorthand Lab</b>	<b>0</b>	<b>5</b>	<b>0</b>
Dictation practice in shorthand lab to accompany shorthand class.			
<b>BUS 211 Office Machines</b>	<b>3</b>	<b>0</b>	<b>3</b>
Development of skills in the use of the bookkeeping machine, spirit duplicator, mimeograph, and copying machines, including the preparation of materials. Course is designed for self-paced instruction. Prerequisite: BUS 102 or equivalent.			
<b>BUS 211A Office Machines Lab</b>	<b>0</b>	<b>5</b>	<b>0</b>
A skill building lab to accompany office machines class.			
<b>BUS 213 Machine Transcription III</b>	<b>3</b>	<b>0</b>	<b>3</b>
Emphasis on refinement of machine transcription skills. Proficiency in producing mailable copy in an office-type situation. Prerequisite: BUS 114.			
<b>BUS 214 Secretarial Procedures</b>	<b>5</b>	<b>0</b>	<b>5</b>
Designed to acquaint the student with the responsibilities encountered by a secretary during the work day includes: receptionist duties, handling the mail, telephone techniques, postal regulations, office duplication, office records, purchasing supplies and office organization. Prerequisite: BUS 205.			
<b>BUS 215 Office Application</b>	<b>4</b>	<b>10</b>	<b>9</b>
Emphasis on work experience and an opportunity for the practical application of the skills and knowledge previously learned. The student is assigned to a commercial firm for general office work as required by the cooperating firm. Prerequisite: BUS 214, BUS 205, BUS 117.			
<b>BUS 216 Clerical Procedures</b>	<b>3</b>	<b>2</b>	<b>4</b>
Designed to acquaint the student 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. Prerequisite: BUS 205.			
<b>BUS 219 Credit Procedures &amp; Problems</b>	<b>3</b>	<b>0</b>	<b>3</b>
Principles and practices in the extension of credit and the collection of accounts. Federal and State laws pertaining to credit extension and the collection are included. Prerequisite: BUS 120.			
<b>BUS 222 Intermediate Accounting</b>	<b>5</b>	<b>2</b>	<b>6</b>
Thorough treatment of the field of general accounting providing the necessary foundation for specialized studies that follow. Includes the balance sheet, income and surplus statements, fundamental processes of recording, cash and temporary investments, and analysis of working capital. Prerequisite: BUS 122.			

<b>BUS 223 Intermediate Accounting</b>	<b>5</b>	<b>2</b>	<b>6</b>
Additional study of intermediate accounting with emphasis on investments, plant and equipment, intangible assets and deferred charges, long term liabilities, paid-in capital, retained earnings, and special analytical processes. Prerequisite: BUS 222.			
<b>BUS 225 Cost Accounting</b>	<b>3</b>	<b>2</b>	<b>4</b>
Theory and procedures of cost accounting; accounting for prime costs and factory burden; job order, process, and standard cost systems; computation of unit costs; accounting for managerial purposes. Prerequisite: BUS 122.			
<b>BUS 227 Advanced Accounting</b>	<b>3</b>	<b>2</b>	<b>4</b>
Study of Professional Code of Ethics & APB Opinions. Application of accounting theory and principles through case studies. Prerequisite: BUS 223.			
<b>BUS 229 Taxes</b>	<b>3</b>	<b>2</b>	<b>4</b>
Application of Federal and State taxes to various businesses and business conditions. A study of the following taxes: income, payroll, intangible, capital gain, sales and use, excise, and inheritance. Prerequisite: BUS 122.			
<b>BUS 231 Sales &amp; Inventory Procedures</b>	<b>3</b>	<b>0</b>	<b>3</b>
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.			
<b>BUS 232 Sales Development</b>	<b>3</b>	<b>0</b>	<b>3</b>
A study of retail, wholesale, and specialty selling. Emphasis is placed upon mastering and applying the fundamentals of selling. Preparation for and execution of sales demonstrations required.			
<b>BUS 233 Personnel Management</b>	<b>3</b>	<b>0</b>	<b>3</b>
An introduction to the operation of a personnel department. Emphasis is placed on the scientific management of manpower through personnel policies pertaining to recruitment, selection, placement, training, promotion, employee services, and health and safety.			
<b>BUS 235 Business Management</b>	<b>3</b>	<b>0</b>	<b>3</b>
Principles of business management include overview of major functions of management, such as planning, staffing, controlling, directing, and financing. Clarification of the decision making function versus the operating function.			
<b>BUS 239 Marketing</b>	<b>5</b>	<b>0</b>	<b>5</b>
A general survey of the field of marketing, with a detailed study of the functions, policies, and the institutions involved in the marketing process.			



<b>BUS 243 Advertising</b>	<b>3</b>	<b>2</b>	<b>4</b>
The role of advertising in a free economy and its place in the media of mass communications. A study of advertising appeals, product and market research, selection of media, and means of testing effectiveness of advertising.			
<b>BUS 247 Business Insurance</b>	<b>3</b>	<b>0</b>	<b>3</b>
A presentation of the basic principles of risk insurance and their application. A survey of the various types of insurance is made.			
<b>BUS 258 Speed Typewriting</b>	<b>2</b>	<b>3</b>	<b>3</b>
Emphasis on improving typing techniques including stroke control, accuracy, forced speed building, and retained speed for long periods of typing straight copy. Course is designed for self-paced instruction. Prerequisite: JS 205.			
<b>BUS 258A Typewriting Lab</b>	<b>0</b>	<b>5</b>	<b>0</b>
A skill building lab to accompany typewriting class.			
<b>BUS 259 Applied Office Typewriting</b>	<b>2</b>	<b>3</b>	<b>3</b>
A culmination of typing skills involving general clerical duties such as typing invoices, insurance forms, statements of account, form letters, reports, and purchase orders. Special emphasis on payroll typing and number symbol drills and problems. Includes a variety of typing employment tests. Prerequisite: BUS 258.			
<b>BUS 259A Applied Office Typewriting Lab</b>	<b>0</b>	<b>5</b>	<b>0</b>
A skill building lab to accompany the typewriting class.			
<b>BUS 269 Auditing</b>	<b>3</b>	<b>2</b>	<b>4</b>
Principles of conducting audits and investigations, setting up accounts based upon audits, collecting data on working papers, arranging and systemizing the audit, and writing the audit report. Emphasis is placed on detailed audits, internal auditing and internal control. Prerequisite: BUS 223.			
<b>BUS 271 Office Management</b>	<b>3</b>	<b>0</b>	<b>3</b>
Fundamental principles of office management. Emphasis on the role of office management including its functions, office automation, planning, controlling, organizing, and actuating office problems.			
<b>BUS 272 Principles of Supervision</b>	<b>3</b>	<b>0</b>	<b>3</b>
Basic responsibilities and duties of the supervisor and his relationship to superiors, subordinates, and associates. Emphasis on securing an effective work force and the role of the supervisor. Methods of supervision.			
<b>BUS 284M Medical Terminology &amp; Vocabulary</b>	<b>3</b>	<b>0</b>	<b>3</b>
Greater emphasis on an understanding of the terminology and vocabulary appropriate to the course of study, as it is used in business, technical, and profes-			

sional offices.

Prerequisite: BUS 183M.

## CHEMISTRY

**CHM 101 Chemistry [Refresher] 4 2 5**

A review of the physical and chemical properties of substances, chemical changes; elements, compounds, gases, chemical combinations; weights and measurements; theory of metals; acids, bases, salts, solvents, solutions, and emulsions; in addition electro-chemistry, electrolytes, and electrolysis in their application of chemistry to industry.

**CHM 102 Inorganic Chemistry 4 2 5**

An introduction to environmental chemistry. The course will cover the relationship of chemistry to man and his environment. Topics studied include environmental measurement, 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.

Prerequisite: None.

**CHM 103 Inorganic Chemistry 4 2 5**

An application of basic chemical principles to environmental problems. Topics covered include the chemistry of water and water pollution, air pollution and atmospheric chemistry, environmental contamination by heavy metals, pesticide chemistry, and the problem of nuclear energy in the environment.

Prerequisite: CHM 102.

**CHM 106 Organic Chemistry 4 2 5**

General principles and theories of organic chemistry. Preparations, formulas, and properties of the most important organic compounds, with a brief description of synthetic compounds of commercial value in addition to the main vitamins, antibiotics, and hormones and pesticides.

## CIVIL ENGINEERING

**CIV 101 Surveying 2 6 4**

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 and site work will be included.

Prerequisites: MAT 102, ARC 107.



<b>CIV 102 Surveying</b>	<b>2</b>	<b>6</b>	<b>4</b>
Triangulation of ordinary precision; use of plane tablet; calculation of areas of land; land surveying; topographic surveys and mapping.			
<b>CIV 103 Surveying</b>	<b>2</b>	<b>6</b>	<b>4</b>
Route surveys by ground and aerial methods; simple, compound, reverse, parabolic and spiral curves; geometric design of highways; highway surveys and plans, including mass diagrams.			
<b>CIV 105 Architectural Materials and Methods</b>	<b>3</b>	<b>3</b>	<b>4</b>
Materials used in the construction of architectural structures will be studied. Field trips to construction sites and study of manufacturer's specifications for materials. Properties and standard sizes of structural materials and construction techniques are included. Prerequisite: None.			
<b>CIV 110 Surveyor Practices</b>	<b>1</b>	<b>0</b>	<b>1</b>
Covers the legal principles of surveys and resurveys including boundary control and interpretation of deed descriptions. Legal, judicial and historical aspects of land surveying discussed.			
<b>CIV 114 Statics</b>	<b>5</b>	<b>0</b>	<b>5</b>
Forces, resultants, and types of force systems; moments, equilibrium of coplanar forces by analytical and graphic methods; stresses and reactions in simple structures; equilibrium of forces in space; center of gravity, centroids, moment of inertia, and hydrostatic load analysis. Prerequisite: MAT 102.			
<b>CIV 204 Surveying</b>	<b>2</b>	<b>6</b>	<b>4</b>
Aerial photogrammetry; applications of aerial surveys; building and road construction surveying; lines and grades for foundation layout, building construction, bridge layout, sewer and pipe line surveys.			
<b>CIV 216 Strength of Materials</b>	<b>3</b>	<b>2</b>	<b>4</b>
Fundamental stress and strain relationship; shear and bending moments; stresses and deflections in beams; introduction to statically indeterminate beams; columns; combines stresses. Prerequisites: CIV 114, MAT 103.			
<b>CIV 221 Reinforced Concrete Construction</b>	<b>3</b>	<b>2</b>	<b>4</b>
Analysis and design of reinforced concrete beams, floor systems, and columns. Use of CRSI Design Handbook. Introduction to ultimate strength design. Principles of prestressed and precast concrete. Field inspection trips. Prerequisite: CIV 216.			
<b>CIV 223 Codes, Contracts &amp; Specifications</b>	<b>2</b>	<b>0</b>	<b>2</b>
Basic principles and methods most significant in contract relationships; appreciation of the legal considerations in construction work; study of the			

National Building Code and local building codes, interpreting and outlining specification.

## COMMERCIAL ART

### **CAT 101 Advertising Principles** 3 0 3

A comprehensive survey of the history and development of advertising including a discussion of its economic and social values. An introduction to advertising media and current publications in the field.

### **CAT 102 Drawing** 1 4 3

Emphasis will be on the basic principle and fundamentals of drawing. The student will be exposed to basic techniques through problems in perspective and drawing from nature.

### **CAT 105 Life Study** 1 4 3

A study of the body structure with emphasis on the skeletal and muscular systems. Graphic interpretation and response to live models with emphasis on proportioning, line and mass.

Prerequisite: CAT 102.

### **CAT 106 Life Study** 1 4 3

Graphical interpretation and response to the live model covering topics such as proportioning, the aging process, character, expression, and draping the model. This course will deal with building of the figure and such ingredients as placement, balance, rhythm, turning, twisting, wedging, distribution of masses, perspective of form, planes of form, abdominal arch, hair forms and variations.

Prerequisite: CAT 105.

### **CAT 110 Survey of Art History** 3 0 3

A brief survey of art and its development in Western Civilization. Primary emphasis will be placed on the development of art from the Renaissance through the Twentieth Century forms of expression.

### **CAT 121 Design I** 3 6 6

An introduction to basic design, its elements and concepts. The course will deal with problems in balance, value, line texture and shape. The student will work with basic tools and materials to explore some of design possibilities of the two-dimensional format.

Prerequisite: None.

### **CAT 122 Design II** 3 6 6

A continuation of Design I. Emphasis of the course will be the fundamentals and theories of color, its application and design potential.

Prerequisite: CAT 121 or portfolio.

**CAT 123 Layout & Design I** 2 6 5

An introduction to the basic techniques of layout and graphic design: post-up, mechanicals, typography, and production.

Prerequisites: CAT 121, CAT 122, DFT 104, DFT 105.

**CAT 210 Production Techniques** 1 4 3

An introduction to production techniques including the exploration of mechanical type, its formation and uses. Also introduced will be the airbrush and the commercial uses of silkscreen printing. Laboratory exercises will give the student a working knowledge of each media.

**CAT 212 Advertising Illustration** 1 4 3

An introduction to the use of the illustration in advertising. Students will explore the use of various media and illustration styles. Students will be encouraged to use learned techniques and explore in illustration areas that most interest them.

**CAT 213 Advertising Illustration** 1 4 3

Advanced problems in advertising illustration. Emphasis is placed on originality and the readiness of the student to explore assigned tasks and problems.

Prerequisite: CAT 212.

**CAT 214 Type and Letter Form Design** 1 4 3

Hand exercises with the pencil, pen point, and lettering brush. Mechanical type procedures will include hand setting type and obtaining type from strip-printer, varitype and other mechanical means. Laboratory exercises will allow student to obtain minimum knowledge of availability of type and its usage.

**CAT 218 Photomechanical Techniques** 2 6 5

Advanced darkroom techniques concerning both tonal and graphic arts photography. Students will explore various means of producing finished photo art work for client presentation.

**CAT 224 Layout and Design II** 3 6 6

Introduction to intermediate layout and design techniques for offset printing, including the preparation of camera ready art work. Laboratory problems will include an introduction to graphic art darkroom procedures necessary for offset printing and an introduction to the offset press operation.

Prerequisite: CAT 123.

**CAT 225 Grapic Design I** 3 6 6

Advanced problems in layout and design techniques as well as advanced darkroom procedures in preparation of offset production. Laboratory exercises will deal with multi-color offset production problems.

**CAT 226 Graphic Design II** 3 6 6

A course providing simulated professional working conditions utilizing advanced layout and design techniques for printing. Each student will explore a variety of

problems and present his solutions for general class critique and discussion.

**CAT 235 Advertising Art Direction** 5 0 5

Student will become familiar with specific area of interest and prepare personal portfolio for presentation to prospective employer.

## CULINARY SCIENCE

**CSP 110 Food Service Practicum I** 4 36 8

This course is planned to give the student an opportunity to have directed experiences in the industry and gain practical experience. The student must receive the approval of the department chairman prior to registering for the course. Students may register for either session of summer school.

**CSP 203 Food Service Practicum II** 1 9 4

To introduce the students to basic dining room routines, basic menu terminology, various stations of the dining room; fine points of service as they are practiced in leading dining rooms will be taught. Merchandising of the menu is also emphasized.

**CSP 214 Food Service Practicum III** 1 9 4

To have the students practice the proper techniques of service in the dining room, courtesy to guests in stressed as well as attractiveness of plate presentation. Kitchen-dining room flow of services will also be stressed.

Prerequisite: CSP 203.

## DRAFTING

**DFT 101 Technical Drafting** 1-0 3 or 6 2-3

The field of drafting is introduced as the student begins study of drawing principles and practices for print reading and describing objects in the graphic language. Basic skills and techniques of drafting included are: use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric construction, orthographic instrument drawing of principal views, and standards and practices of dimensioning. The principles of isometric, oblique, and perspective are introduced.

Prerequisite: None.

**DFT 102 Technical Drafting** 1 3 or 6 2-3

The application of orthographic projection principles to the more complex drafting problems, primary and secondary auxiliary views, simple and successive revolutions, and sections and conventions will be studied. Most important is the introduction of the graphical analysis of space problems. Problems of practical design elements involving points, lines, planes, and a combination of these elements shall be studied. Dimensioning practices, approved by the American

Standards Association will also be included. Introduction is given to intersections and developments of various types of geometrical objects.  
Prerequisite: DFT 101.

**DFT 230 Structural Drafting** 2                  6                  4

A concentrated study and drawing of structural plans, details and shop drawings of the structural components of buildings to include steel, reinforced concrete, and timber structures. Appropriate symbols, conventions, dimensioning practices, and notes as used by the draftsman will be included. Emphasis will be placed on drafting of appropriate drawings for fabrication and erection of the structural components.

Prerequisites: ARC 220, CIV 105.

**DFT 235 Codes, Specifications, and Contract Documents** 3                  3                  4

A study of building codes and their effect in relation to specifications and drawings. The purpose and writing of specifications will be studied along with their legal and practical application to working drawings. Contract documents will be analyzed and studied for the purpose of client-architect-contractor responsibilities, duties, and mutual protection.

Prerequisite: ARC 220.

**DFT 236 Construction Estimating and Field Inspection** 3                  3                  4

Interpretation of working drawings for a project; preparation of material and labor quantity surveys from plans and specifications; approximate and detailed estimates of cost. The student will 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.

Prerequisite: DFT 235.

**ECONOMICS**

**ECO 102 Economics** 3                  0                  3

The fundamental principles of economics including the institutions and practices by which people gain a livelihood. Included is a study of the laws of supply and demand and the principles bearing upon production, exchange, distribution, and consumption in relation to the individual enterprise and to society at large.

**ECO 104 Economics** 3                  0                  3

Greater depth in principles of economics, including a penetration into the composition and pricing of national output distribution of income, international trade and finance, and current economic problems.

**ECO 108 Consumer Economics** 3                  0                  3

Designed to help the student use his resources of time, energy, and money to get the most out of life. It gives the student an opportunity to build useful skills in buying, managing his finances, increasing his resources, and understanding better the economy in which he lives.







**EDP 114 Introduction to Computer Concepts** 3 0 3

An introductory course in computers for the student who plans to pursue the degree in data processing as well as the student who desires a general nontechnical knowledge of terminology and concepts. No previous knowledge or experience in data processing is required.

**EDP 115 FORTRAN** 2 2 3

A fundamental course in Fortran programming. The FORTRAN language structure, statements, and programming methods and techniques are studied. The student will develop program logic and write FORTRAN programs for solving sample problems.

**EDP 115A Independent Study** 0 5 0

This course is designed to provide scheduled laboratory time for students who have not met vocational proficiency standards in programming languages.

**EDP 116 Assembly Language I** 2 4 4

The study of symbolic computer languages with emphasis on a particular example of such a language. The student will develop program logic and write programs using assembly language to solve appropriately assigned problems.

**EDP 116A Independent Study** 0 5 0

This course is designed to provide scheduled laboratory time for students who have not met vocational proficiency standards in programming languages.

**EDP 117 Assembly Language II** 2 4 4

A continuation of Assembly Language to provide the student more depth and experience using a symbolic programming language.

**EDP 118 COBOL I** 2 4 4

This course is designed to provide basic training in COBOL programming. The COBOL language structure, statements, and programming methods and techniques are studied. The student will develop program logic and write COBOL programs for solving sample problems.

**EDP 118A Independent Study** 0 5 0

This course is designed to provide scheduled laboratory time for students who have not met vocational proficiency standards in programming languages.

**EDP 119 COBOL II** 2 4 4

A continuation of training in COBOL programming techniques and methods. This course is designed to provide the student with the opportunity to apply skills learned in COBOL I to typical business applications.

**EDP 211 Applications I** 2 4 4

This course is designed to provide the student with sufficient knowledge in computer methodology to permit the use of computers in business. Emphasis will center around the computer environment with an indepth study of typical

business computer applications.

**EDP 212 Applications II** 2 4 4

This course 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 are studied. Audit trails enabling the tracing of transactions back to the original source or forward to the first report are analyzed. Simulated data is used to demonstrate programming techniques required in processing management information. Structure of data files will receive major emphasis.

**EDP 214 Computer Systems I** 2 2 3

A study of computer systems involving such concepts of architecture and/or programming as channels, interrupts, multiprogramming, job scheduling, file devices, and file organization.

**EDP 216 Systems and Procedures** 3 0 3

An introductory course in the principles of management systems applied to information data flows. Particular attention is given to forms flowcharting, forms analysis, and design and systems analysis.

**EDP 217 Applied Business Systems** 3 0 3

A continuation of management systems applied to information data flow. Practical work in systems flowcharting and analysis is implemented. The conduction of feasibility studies, the preparation and maintenance of standard practice, policies, and organization manuals, and computer application are stressed.

**EDP 219 Computer Language Survey** 2 2 3

A survey and comparison of various computer languages. Students will write and execute basic programs in several computer languages.

**EDP 221 Symbolic Logic** 3 0 3

A study of symbolic logic and boolean algebra principles as applicable to computer programming.

**EDP 222 Data Processing Project** 1 8 5

This culminating project is designed to provide the student with on the job training in the business computer environment or to develop a comprehensive software system for typical business applications.

**EDP 223 RPG I** 2 4 4

A study of a report generator language appropriate for use with a small computing system. The student will develop program logic and write programs to solve appropriately related sample business problems.

## ELECTRONICS

**ELN 101 Electronic Instruments and Measurements** 1 4 3

A study of basic electronic instruments, their theory of operation, function, tolerances, and calibration. Both service and laboratory instruments will be studied. Laboratory experience will provide application of each type instrument studied.

Prerequisite: ELC 102.

**ELN 105 Control Devices** 5 4 7

A study indepth of the electrical characteristics of vacuum tubes and transistors. Basic parameters and applications of each type device to the three terminal two port system will be included.

Prerequisite: ELC 102.

**ELN 205 Application of Vacuum Tubes and Transistors** 5 4 7

Practical applications of vacuum tubes and transistors to basic audio amplifiers, radio frequency amplifiers, detectors, power supplies and oscillators.

Prerequisite: ELN 105.

**ELN 210 Semiconductor Circuit Analysis** 5 3 6

A study in some depth of the analysis and design of transistor circuits. Network theorems and equivalent circuits are used extensively in evaluating total circuit performance. Device peculiarities and limitations pertinent to reliable operations are considered. H.Y.Z. and T. parameters are employed as well as signal flow graphs.

Prerequisite: ELN 205.

**ELN 211P Communication Circuits** 3 6 5

Because of the scope and complexity of modern communication systems and equipment, this course emphasizes the principles involved in the use of the components and devices studied, as well as providing practice in testing the components and using them in simple relationships in circuits with other units.

Prerequisite: ELN 205.

**ELN 214 Wave Shaping and Pulse Circuits I** 2 3 3

Broadband amplifiers, magnetic amplifiers, multivibrators, wave shaping techniques, chopper amplifiers, clipper and clamper circuits.

Prerequisites: ELN 105, MAT 103.

**ELN 215 Wave Shaping and Pulse Circuits II** 4 4 6

An introduction to basic principles of pulse circuitry and nonsinusoidal generators and their application in the field of electronics. This course will be oriented toward introduction of basic logic circuitry as applied in digital computers.

Prerequisite: ELN 214.

**ELN 220 Electronic Systems** 5 4 7

A block diagram course investigating numerous electronic systems. Modules or blocks of various circuits already studied are arranged in various manners to produce complex electronic systems. Systems will be 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, sonar and radar will be considered.

Corequisite: ELN 215.

**ELN 235 Industrial Instrumentation** 3 3 4

Broad introduction to use of industrial electro mechanical and electronic circuits and equipment. Provides an understanding of the methods, techniques, and skills required for installation, service, and operation of a variety of industrial control systems. Analysis of sensing devices for detecting changes in pressure, temperature, humidity, sound, light, and electricity, the associated circuitry and indicating and recording devices.

Prerequisites: ELN 205, PHY 104.

**ENGLISH**

**ENG 100 Basic Communications** 10 0 10

A review of basic reading fundamentals - viz phonics, syllabication, vocabulary, word attack, sentences and paragraph interpretation and expanded reading.

**ENG 101 Grammar** 3 0 3

Designed to aid the student in the improvement of self expression in grammar. The approach is functional with emphasis on grammar, diction, sentence structure, punctuation, and spelling. Intended to stimulate students in applying the basic principles of English grammar in their day-to-day situations in industry and social life.

Prerequisite: None,

**ENG 101A Reading Development** 1 0 1

Designed to improve the students ability to read through building skills with roots, prefixes, and suffixes; vocabulary; charts and graphs; expanded reading experiences; and speed reading.

Prerequisite: None.

**ENG 101S Secretarial Grammar** 5 0 5

Required of all beginning secretarial students as a prerequisite to the shorthand program. Special emphasis is placed on grammar, punctuation, and spelling. Students must earn a grade of 85 or above on this course before entering the shorthand program.

Prerequisite (Satisfactory evidence that admission requirements have been met.)



**ENG 102 Composition** 3 0 3

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.

Prerequisite: ENG 101.

**ENG 103 Report Writing** 3 0 3

The fundamentals of English are utilized as a background for the organization and techniques of modern report writing. Exercises in developing typical reports, using writing techniques and graphic devices are completed by the students. Practical application in the preparation of a full-length report is required of each student at the end of the term. This report must have to do with something in his chosen curriculum.

Prerequisite: ENG 102 and at least two quarters of curriculum work.

**ENG 104 Creative Expression** 3 0 3

A study of literature as an art form to enable the student to see how the artist from another discipline has dealt with some of the problems of mankind and civilization. The approach is structured so that the student will realize that as in any art, expresison comes through form. Particular attention is given to literary forms to show that all art has organization. Emphasis is placed on developing the student's communication skills. It is the intent that through reading and discussion, the student will become sensitive to the characterisities of these various forms and ultimately motivated to express himself through them.

Prerequisite: ENG 102.

**ENG 204 Oral Communications** 3 0 3

A study of the basic concepts and principles of oral communications to enable the student to communicate with others effectively. Emphasis is placed on the speaker's attitude, diction, voice and the application of particular techniques of theory to correct speaking habits and to produce effective oral presentation. Particular attention is given to individual performance, interviews, and parliamentary law.

Prerequisite: ENG 101.

**ENG 206 Business Communication** 3 0 3

Develops skills in techniques in writing business communications. Business reports, letters involving credit, collections, adjustments, complaints, orders, acknowledgements, inquiries, job applications, and data sheets. (This course is designed to be self pacing, allowing the student as much time as needed to master the course objectives.)

Prerequisite: ENG 102.

**ENG 250 Introduction to Theatre** 3 2 4

An introduction to basic technical theatre encompassing a broad look into the entire field of the techniques of production. A base of knowledge is established in the student which provides a projected concept of principles to be taught in subsequent courses in this curriculum. Stage scenery, design, set construction, stage techniques, makeup, lighting, costuming, prop construction, and theatre



jargon are learned.  
Prerequisite: None.

**ENG 250A Introduction to Theatre Lab                    0                    5                    0**

The student learns practical stage craft and scenery design through application of learned techniques. This course is run in sequence with ENG 250.

**ENG 251 Basic Acting Techniques                    3                    2                    4**

A basic course in acting techniques as applied to technical theatre and stage craft production. The beginning student learns stage terminology. Students will receive training in techniques, processes, operation and application of play production.

Prerequisite: ENG 250.

**ENG 251A Basic Acting Techniques Lab                    0                    5                    0**

The student learns basic techniques through practical application.

**ENG 252 Problems in Production                    3                    2                    4**

An 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 dealt with.

Prerequisite: ENG 250.

**ENG 252A Problems in Production Lab                    0                    5                    0**

The student learns advanced design through practical application.

**ENG 253 Acting & Directing Techniques                    3                    2                    4**

An advanced course in acting and directing techniques. The major emphasis is on play selection, community involvement, publicity, other communicative media (television, radio, motion picture). The students in addition to learning advanced acting, become fully acquainted with all aspects of the financial management of the theatre.

Prerequisite: ENG 251.

**ENG 253A Acting & Directing Techniques Lab                    0                    5                    0**

The student learns about advanced techniques through practical application.

**ENG 254 Advanced Directing Techniques                    3                    2                    4**

The student both learns and participates in the conception of the drama as seen from the director's point of view. He also assists in the directing of scenes and acts of smaller plays and scene synopsis. It aids in assisting the student find his creative abilities as related to the play as an influence upon mass media.

**ENG 254A Advanced Directing Techniques Lab                    0                    5                    0**

The student learns about advanced techniques through practical application.

**ENG 255 Playwriting Techniques** 3 2 4

It begins with the play as a form of creative expression and teaches the student to analyze for plot as well as action and character development. The student writes a one act play of his own and directs the play using techniques derived from ENG 254.

**ENG 255A Playwriting Techniques Lab** 0 5 0

The student learns about advanced techniques through practical application.

## **ENVIRONMENT**

**ENV 101 Environmental Orientation** 3 2 4

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 102 Microbiology** 3 3 4

Identification and classification of microorganisms (bacteria, fungi, algae, protozoa, virus) and a study of their relationship to food, air and water borne infections of man. Bacterial analysis of water, milk, and air samples.

Prerequisites: ENV 101, ENV 104.

**ENV 103 Water Resources Management** 3 2 4

A course presenting the water needs of the nation, the various sources of water supply, the elements of water supply treatment to include: aeration, sedimentation, filtration, chlorination, flouridation, chemical treatment, and control of taste and odor, bacterial and mineral contaminants, operational problems of a water treatment plant including rules, regulations, maintenance and record keeping.

Prerequisite: ENV 101.

**ENV 104 Environmental Biology** 3 3 4

Basic concepts of the relationship between living organisms and their environment. Classification and identification of pathogenic organisms associated with water, food, and airborne infections. Field collection, microscopic study and laboratory analysis of pathogenic organisms.

**ENV 112 Air Resources Management** 3 2 4

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, meteorological effects, and facets of an air pollution

program are introduced.

Prerequisite: ENV 101.

**ENV 195 Environmental Practicum 0 40 13**

A cooperative program supported by local industries, city, county, state, and federal agencies engaged in environmental fields to provide summer practical experience in a related area.

**ENV 200, 220, 230, 240 Environmental Projects Course 1-3**

1-3 credit hours. This course designed for students who need extra work or wish to specialize or expand their knowledge in certain areas of environmental studies. Hours and course requirements to be arranged with Air and Water Resources Technology department faculty.

**ENV 204 Water Sampling and Analysis 2 4 4**

Theory and laboratory techniques pertaining to waste water treatment to include sampling and analysis: BO, BOD, COD, phosphate, solids, nitrogen compounds, sulfate, chloride, flouride, volatile acids, chlorine residual, chlorine requirement.

Prerequisites: ENV 101, ENV 104, ENV 217.

**ENV 205 Waste Water Sampling & Analysis 2 4 4**

Theory and laboratory techniques pertaining to waste water treatment to include sampling and analysis: DO, BOD, COD, phosphate, solids, nitrogen compounds, sulfate, chloride, flouride, volatile acids, chlorine residual, chlorine requirement.

Prerequisites: ENV 101, 102, 104, 217 & CHM 102, 103.

**ENV 206 Industrial Waste Water and Field Sampling 3 3 4**

Field trips to collect samples of industrial waste water followed by laboratory analysis for heavy metals (iron, aluminum, sodium, potassium, lead, mercury) by atomic absorption spectroscopy, analysis for phenols, grease, relative stability, industrial milk and food tests; desalination plant studies; stream and lake surveys.

Prerequisites: ENV 101, 103, 104, 205, 217.

**ENV 212 Air Pollution Sources and Control 3 3 4**

An introduction to the major industrial processes and energy producing reactions which are potential sources of air pollution, including chemical processing, petroleum, metals, production, pulp and paper, food and feeds, automobiles. Various types of control equipment are studied. This allows a student to achieve an understanding of specific problems relating to the control of air pollution within each industry.

Prerequisites: ENV 101, 112.

**ENV 217 Waste Water Treatment 3 2 4**

A course presenting the liquid waste pollution problem and methods of treatment to include composition of sewage, industrial waste, nitrogen-carbon-sulfur cycles, aerobic and anaerobic decomposition, dilution, screening,

dewatering, measuring, sedimentation, aeration, digestion, filtration, air drying, biological purification, grease and oil removal, disinfection, chemical precipitation, filters, and treatment plant rules, regulations, maintenance, and record keeping.

Prerequisites: ENV 101, 103, 104.

**ENV 225 Agricultural Pollution** 4 3 5

Study of the relationship between agriculture and environmental pollution. Topics covered include soils, control of animal wastes and feedlot management, pesticide use and misuse in the environment, 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.

**ENV 226 Atmospheric Air Sampling and Analysis** 2 6 5

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<sub>2</sub>, NO<sub>2</sub>, O<sub>2</sub>, aldehydes, acrolein. Familiarization with continuous monitoring equipment.

Prerequisites: ENV 101, 112.

**ENV 236 Air Pollution Source Sampling and Analysis** 2 6 5

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; collection, measurement and analysis of most common air pollutants such as ammonia, NO<sub>x</sub>, SO<sub>x</sub>, HC, CO, fluorides and chlorine.

Prerequisites: ENV 101, 112, 212.

## FORESTRY

**FOR 208 Forest Surveying** 2 3 3

Relocation of old corners and lines and the legal aspects of land surveys. Forest road layout.

## HEALTH

**HEA 110 First Aid** 2 2 3

A study of the theory and practice of the techniques used in the field treatment of the more common injuries such as burns, lacerations, fractures, and snake bites. Instruction will be given in rescue operations and in field treatments associated with rescue work such as mouth-to-mouth and artificial resuscitation.



## HOME ECONOMICS

**HOME 5 Food** 2 6 5  
Selection of food products and principles involved in the preparation of food.

**HOME 105 Nutrition** 3 0 3  
The elementary principles of nutrition and their practical application.

**HOME 205 Advanced Food** 2 6 5  
Emphasis on management of time, buying of supplies, care of home food supply, menu planning, and food service suitable to different occasions.  
Prerequisites: HOME 5, 105.

**HOME 303 Food for Children** 2 2 3  
Designed to give students an understanding of nutritional needs and food habits of young children through application of research findings. Practical experience in food service management for feeding children is included as group and individual projects.  
Prerequisite: HOME 5.

**HOME 327 Food Purchasing & Cost Control** 1 4 3  
A study of the market organization, wholesale market functions, and the purchase of food for institutional use. Emphasis on factors determining quality, grade, and cost.





**HOME 328 Quantity Food** 2 6 5

Management in quantity food production by standard methods of food productions; institutional menu planning, food preparation, merchandising, food cost and control, equipment care and sanitation, food service personnel management.

**HOME 330 Institution Mangement and Organization** 3 0 3

Principles of scientific management of food services; hospital, school lunch, student residence, and commercial units. Emphasis on business organization, personnel relationships, and keeping records.

**HOME 360a Independent Study [Institution Equipment]** 3 0 3

Investigation of specific considerations which must be taken into account when selecting and placing equipment in a food service.

Prerequisite: Home Economics Major or consent of instructor.

## JOURNALISM

**JOU 101 Introduction to Journalism** 3 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 function of a newspaper.

**JOU 101A Introduction to Journalism Lab** 0 2 0

Application of skills acquired in Introduction to Journalism.

**JOU 102 Essentials of Newswriting** 3 0 3

An analysis of the newswriting procedure including fact gathering, style, purpose, principles, editing, and maintenance of objectivity.

**JOU 102A Essentials of Newswriting Lab** 0 2 0

Application of skills and knowledge pertaining to newswriting.

**JOU 103 Newspaper Layout and Production** 3 0 3

An analysis of the basic principles of layout and design. Students will attain a functional knowledge with the process involved in offset and letterpress lithography.

**JOU 103A Newspaper Layout and Production** 0 2 0

Application of skills and knowledge pertaining to newspaper layout and production.

**JOU 201 Feature Writing** 3 0 3

An analysis of feature writing with concentration on columns, human interest

features, news features, and creative journalism.

**JOU 201A Feature Writing Lab** 0 2 0

Application of skills and knowledge pertaining to feature writing.

**JOU 202 Editorial Writing and Policy** 3 0 3

An analysis of editorial style and content with concentration on structure, point of view, policies, and editorial liability.

**JOU 202A Editorial Writing and Policy Lab** 0 2 0

Application of skills and knowledge pertaining to editorial writing and policy.

**JOU 203 Special Topics Seminar** 3 0 3

An analysis of special area of journalism including opportunities in journalism, photography, journalistic art, advertising, creative journalism, and non-newspaper journalistic media.

**JOU 203A Special Topics Lab** 0 2 0

Application of skills and knowledge pertaining to special topics.

## MATHEMATICS

**MAT 100 Review of Fundamental Mathematics** 5 0 5

Practical number theory. The basic operations (addition, subtraction, multiplication and division) are studied with respect to whole numbers, common fractions, decimals. Includes a study of percents, square roots, ratios and proportions. Practice indepth. Related word problems.

**MAT 101 Technical Mathematics** 5 0 5

The course consists of the following seven units: percent, ratio and proportion, polynominals, first-degree equations and inequalities, special products and factoring, exponents and radicals, and quadratic equations. Supplementary materials relate each of the topics to the curricula involved.

Prerequisite: MAT 110 or equivalent.

**MAT 102 Technical Mathematics** 5 0 5

The first two units of the course review a wide range of basic algebra topics, from combining signed numbers to solving equations graphically. The main body of the course is an indepth study of trigonometry as applied to the various curricula. A brief unit on trig slide rule techniques is included.

Prerequisite: MAT 101 or equivalent.

**MAT 103 Technical Mathematics** 5 0 5

The core of the course consists of more advanced algebra topics, including systems of linear equations, factoring, quadratic equations, exponents and radicals. Various topics pertinent to the different curricula are also included.

Architectural drafting students will study plane analytic geometry plus a brief introduction to calculus. Electronics students will add units on the j-operator, logarithms, and additional types of equations.

Prerequisite: MAT 102.

**MAT 104 Technical Mathematics** 5 0 5

Units include equations of higher degree, plane analytic geometry, the derivative with applications, and integration with applications.

Prerequisite: MAT 103.

**MAT 107 Basic Algebra** 5 0 5

A brief review of decimals and percent precedes the basic algebra topics which include polynomials, first-degree equations and equalities, special products, factoring, exponents, radicals, and quadratic equations.

Prerequisite: MAT 100 or equivalent.

**MAT 109 Introduction to Business Mathematics** 5 0 5

Practical number theory. The basic operations (addition, subtraction, multiplication and division) are studied to whole numbers, common fractions and decimals. Includes a study of percents. Practice indepth. Related word problems.

**MAT 110 Business Mathematics** 5 0 5

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

Prerequisite: MAT 109 or equivalent.

**MAT 111 Computer Mathematics** 5 0 5

This course provides an indepth review of basic mathematical concepts which include arithmetic notations and fundamental algebraic operations. Emphasis is placed upon definitions, logical methods of solving problems, and developing the algorithms and flow charts. Included in the course are: number systems of various bases and transformation from one system to another; fundamental operation in systems other than decimal; application of these concepts to data processing. The study of basic algebra and equations is also included with emphasis toward data processing units.

**MAT 201 Technical Mathematics** 5 0 5

A continuation of MAT 104. More advanced concepts of differentiation and integration. Introduction to solutions of differential equations and an introduction to Fourier Series.

Prerequisite: MAT 104.

**MAT 204 Technical Calculations** 2 2 3

Presentation and practice in performing calculations pertinent to the field of technology. Use of calculators and tables for computations are included.

## MENTAL HEALTH

**MHA 100 Mental Health Orientation** 3 3 4

Orientation to the policies, procedures, and practices commonly accepted in mental health institutions; an introduction to the basic patient care principles and techniques underlying good patient care in meeting the needs of patients during observation, ambulation and mildly mentally ill stages. Actual patient care experiences with selected patients in a clinical agency to enable the student to learn to meet the needs of the patient while performing patient care. Where possible, practice is correlated with theory presented in patient care. Included will be clinical, lab, or ward experiences under the direction of a qualified faculty member.

Prerequisite: MHA 111.

**MHA 111 Introduction to Mental Health** 3 3 4

An orientation to the history, current concepts and trends in mental health; definition and role of the mental health associate; studies of mental health practices from ancient to modern times. Emphasis is given to the current comprehensive community approach, to broad aspects and the various disciplines in mental health, as applied to real life occupational situations.

**MHA 112 Group Processes I** 1 3 2

An introduction to interpersonal concepts and problems of communications in interpersonal transactions. Exploration of one's attitudes, feelings and past experiences as related to the interactions of the individual in society.

Prerequisite: MHA 100.

**MHA 112P Practicum I** 0 6 2

The student will spend six hours per week in clinical laboratory experiences under the supervision of a qualified instructor. Emphasis will be on the application of concepts and principles from related course content.

Prerequisite: Permission of instructor.

**MHA 113 Group Processes II** 1 3 2

A continued study of interpersonal relationships in small group interactions. Self awareness and awareness of others by being involved in a sensitivity group (T group).

Prerequisite: MHA 112.

**MHA 113P Practicum II** 0 6 2

The student will spend six hours per week in a clinical laboratory for specific social problems such as alcoholism, drug addiction and childhood personality disorders under the supervision of a qualified faculty member. Emphasis will be on the application of theoretical concepts and principles from related course content and development of patient care plans.

Prerequisite: Permission of instructor.



**MHA 114 Social Agency Interviewing** 3 6 5

Study of purpose, structure, focus and techniques employed in effective interviewing. Laboratory experiences provide opportunities for observation, practice, recording and summarizing personal histories under faculty supervision at an appropriate social agency.

Prerequisite: MHA 111.

**MHA 115 Field Internship in Community  
Mental Health** 7 33 18

A one quarter intern assignment in a mental health agency or agencies to acquaint the student with the philosophy, procedures, and day to day operations of such agencies. The student observes and participates in staff meetings, interviews, patient care and agency planning. Under the supervision of a qualified faculty member and a staff member of the participating agency. The student submits a written report at the end of the internship period.

Prerequisite: Permission of instructor.

**MHA 131, 132, 133 Readings in Mental Health** 1 0 1

This course is designed for students who need extra work or wish to specialize or expand their knowledge in certain areas of Mental Health. Under the supervision of Mental Health faculty members, the approach is structured to enable the student to study materials, which are relative to concepts in mental health and to write critical analysis of them. Time allotted for students independent study and individual conferences with the supervising instructor will be arranged.

**MHA 210 Group Dynamics I** 1 3 2

A continuation of MHA 113.

Prerequisite: MHA 113.

**MHA 210P Practicum III** 0 6 2

A study of the application of occupational and recreational techniques and skills. Each student will spend six hours per week learning new skills, teaching activities to patients, and developing programs of activities in a therapeutic setting under the supervision of a qualified faculty member.

Prerequisite or Corequisite: Permission of instructor.

**MHA 211 Group Dynamics II** 1 3 2

The final formal group experiences of the student. Attention is given to the development of the student's ability to communicate with others, as well as facilitate communications between others.

Prerequisite: MHA 210.

**MHA 211P Practicum IV** 0 6 2

The student will be assigned for six hours per week in a faculty supervised clinical laboratory for admissions, diagnosis and preliminary treatment procedures.

Prerequisite or Corequisite: Permission of instructor.



**MHA 215 Mental Health Seminar** 3 0 3

A review indepth of current issues and trends within the field of mental health. The student is expected to demonstrate in a mature fashion the knowledge and experience in his previous study and training in group conferences and oral reports.

Prerequisite: MHA 211 - Permission of instructor.

**MHA 215P Practicum V** 0 6 2

The student will spend six hours per week working under the supervision of a qualified faculty member in areas and facilities in which he has had no previous experience or in a facility in which he desires further occupational education and experience.

Prerequisite: Permission of instructor.

**MHA 220 Introduction to Occupational and Recreational Therapy** 3 0 3

Overview of the types of activities utilized as therapeutic techniques with particular emphasis on the purpose of each, ways of creating and holding interests in the activity and the role of the Mental Health Associate in assisting patients to participate.

Prerequisite: MHA 111.

## PHOTOGRAPHY

**PHO 116 Photography** 2 4 4

An introduction to the field of photography, photographic equipment, and materials. A study of the fundamental techniques of the camera and its expressive possibilities in relation to the field of design and visual communications. Assigned camera projects, darkroom procedures and equipment.

**PHO 217 Photography** 2 4 4

Advanced photographic techniques and materials. Participation in studio and laboratory procedures illustrating the various applications and creative possibilities of photography in advertising.

Prerequisite: PHO 116.

**PHO 218 Special Problems in Photography** 2 4 4

Special problems in photography in which students will be able to pursue approved special interest problems under the guidance and supervision of the instructor.

**PHO 219 Special Problems in Photography** 2 4 4

Special problems in photography in which students will be able to pursue approved special interest problems under the guidance and supervision of the instructor.

<b>PHO 220 Special Problems in Photography</b>	<b>2</b>	<b>4</b>	<b>4</b>
--	----------	----------	----------

Special problems in photography in which students will be able to pursue approved special interest problems under the guidance and supervision of the instructor.

## PHYSICAL EDUCATION

<b>PED 104 Softball</b>	<b>2</b>	<b>0</b>	<b>1</b>
<b>PED 106 Basketball</b>	<b>2</b>	<b>0</b>	<b>1</b>
<b>PED 108 Volley Ball</b>	<b>2</b>	<b>0</b>	<b>1</b>

## PHYSICS

<b>PHY 100 Slide Rule</b>	<b>1</b>	<b>0</b>	<b>1</b>
---------------------------	----------	----------	----------

A short course on how to use the slide rule. The operations included are multiplication, division, squares and cubes, square roots and cube roots.  
Prerequisite: MAT 100 or equivalent.

<b>PHY 101 Technical Physics</b>	<b>3</b>	<b>2</b>	<b>4</b>
----------------------------------	----------	----------	----------

A fundamental course covering several basic principles of physics. Typical topics include systems of measurement, solids and their characteristics, liquids at rest, and heat. Laboratory experiments and specialized problems are part of this course.  
Corequisite: MAT 102.

<b>PHY 102 Technical Physics</b>	<b>3</b>	<b>2</b>	<b>4</b>
----------------------------------	----------	----------	----------

A continuation of PHY 101. Typical topics include thermodynamics of heat engines, force and motion, work, energy, power, vectors, graphic solutions, and basic machines. Laboratory experiments are a required part of this course.  
Prerequisites: MAT 102, PHY 101.

<b>PHY 103 Technical Physics</b>	<b>3</b>	<b>2</b>	<b>4</b>
----------------------------------	----------	----------	----------

A continuation of PHY 102 with specific attention given to topics related to architecture. Trusses, wave motion, sound intensity levels, acoustics, light and illumination are typical topics covered.  
Prerequisites: MAT 103, PHY 102.

<b>PHY 104 Technical Physics</b>	<b>3</b>	<b>2</b>	<b>4</b>
----------------------------------	----------	----------	----------

A continuation of PHY 102 with specific attention given to topics related to electronics. Rotary motion, simple harmonic motion with mechanical analogues to simple circuits, wave motion, resonance, sound and basic optics are typical topics covered. Time and equipment permitting, lasers and their applications to measurement, production, and communications will be discussed.

Prerequisites: MAT 103, PHY 102.

**PHY 105 Environmental Physics** 3 2 4

Fundamentals of physics required for understanding environmental problems related to water and air pollution. Properties of liquids with emphasis on hydraulic measurements. Properties of air and gases with emphasis on computations related to volume and velocity measurements of air pollution sampling trains.

Prerequisite: MAT 107.

**POLICE SCIENCE**

**PSC 101 Introduction to Police Science** 5 0 5

A general course designed to familiarize the student with a philosophy and history of law enforcement, including its legal limitations in a democratic republic, a survey of the primary duties and responsibilities of the various law enforcement agencies, a delineation of the basic processes of justice, an evaluation of law enforcement's current position, and an orientation relative to law enforcement as a vocation.

**PSC 102 Introduction to Criminology** 3 0 3

A survey of the different crimes; theories and factors attributing to criminal behavior; the student will study some of the penal and correctional procedures which have been used in the past as well as some of the contemporary methods.

**PSC 103 Penology & the N.C. Correction System** 3 0 3

A study of the historical development of the U.S. prison systems and a survey of contemporary methods employed by the N.C. Youth Development Commission, Parole Board, Probation Commission and the Corrections Department.

**PSC 110 Police Role in Crime and Delinquency** 5 0 5

An introduction to the cause and treatment of juvenile delinquency. The organization, functions, and jurisdictions of juvenile agencies; the processing and detention of juveniles, juveniles case disposition, juvenile status and court procedures. Evaluation of methods in delinquency control. Special attention will be given to forms of family, church, and community resources bearing on juvenile adjustment and preventative measures.

**PSC 112 Motor Vehicle Laws** 3 0 3

A study of the traffic enforcement codes with primary emphasis placed on North Carolina Law.

**PSC 113 Identification Techniques** 3 2 4

The student will study various identification methods and how they evolved into the present day systems. Techniques for lifting latent prints and taking rolled impressions will be developed through lab practice. Instruction will be given in the more popular ten finger and single print classification systems. An

introduction will be given to the process of comparing latent lifts and rolled impressions and in preparing them for courtroom presentation.

**PSC 115A Criminal Law I** 3 0 3  
Designed to present a basic concept of criminal law and create an appreciation of the rules under which one lives in our system of government. Primary emphasis will be placed on North Carolina Law.

**PSC 115B Criminal Law II** 3 0 3  
A continuation of Criminal Law I which presents a basic concept of criminal law and creates an appreciation of the rules under which one lives in our system of government. Primary emphasis will be placed on North Carolina Law.  
Prerequisite: PSC 115A.

**PSC 201 Traffic Planning and Management** 4 2 5  
A study which covers the history of the traffic enforcement problems and gives an overview of the problem as it exists today. Attention will be given to the three E's and legislation, the organization of the traffic unit, the responsibilities to the traffic function of the various units within the law enforcement agency, enforcement tactics, evaluation of the traffic program effectiveness and the allocation of men and materials.

**PSC 202 Police Community Relations** 2 0 2  
A course designed to create an awareness of the need for good police and community relationship; problems confronting police personnel in achieving this goal; solutions to these problems, including a survey of non-police agencies dealing with police problems and how they can best work together to achieve their common goal.  
Prerequisite: Permission of instructor-coordinator.

**PSC 204 Police Science Photography** 3 2 4  
A study of photographic equipment and its applications to the field of law enforcement. Instruction will be given in all phases of the photographic process including crime scene, surveillance, macro and micro photography, including the development of negative and prints. The student will develop techniques in the use of different kinds of cameras and other photographic equipment through lab practice.  
Prerequisite: CHM 101.

**PSC 205 Criminal Evidence** 3 0 3  
Instruction covers the kinds and degrees of evidence and the rules governing the admissibility of evidence in court.  
Prerequisite: PSC 115.

**PSC 209 Interviews and Interrogations** 3 0 3  
Instruction will be given in the various sources of information available to law enforcement agencies and in the techniques used in interviewing and interrogating.  
Prerequisite: Admission to the program; permission of instructor-coordinator.

**PSC 210 Criminal Investigation** 4 2 5

This course introduces the student to the fundamentals of investigation; crime scene search; recording, collection and preservation of evidence; case preparation and court presentation; and the investigation of specific offenses such as arson, narcotics, sex, larceny, burglary, robbery and homicide.

Prerequisite: Admission to the program; permission of the instructor-coordinator.

**PSC 211 Introduction to Criminalistics** 4 2 5

A general survey of the methods and techniques used in modern scientific investigation of crime, with emphasis upon the practical use of these methods by the students. Laboratory techniques will be demonstrated and the student will participate in actual use of the scientific equipment.

Prerequisite: Admission to the program; permission of the instructor-coordinator.

**PSC 220 Organization and Administration** 5 0 5

An introduction to the principles of organization and administration including their application to filed services such as vice control, traffic patrol, criminal investigation, and juvenile division. A discussion of the service functions, e.g., training, communications, records, property maintenance and miscellaneous services.

**PSC 221 Police Supervision** 3 0 3

A continuation of PSC 220 with emphasis on developing supervisory and management techniques employed at the various levels of police work.

Prerequisite: PSC 220.

**PSC 225 Criminal Procedure** 2 0 2

This course is designed to provide the student with a review of court systems; procedures from incident to final disposition; principles of constitutional, federal, state, and civil laws as they apply to and affect law enforcement.

Prerequisite: Permission of instructor-coordinator.

**PSC 230 Current Law Studies** 3 0 3

An advanced study of criminal law with primary emphasis placed on those laws currently being used most frequently by law enforcement officials. The content of the course is flexible and will be determined by the current needs of officers from year to year.

Prerequisite: PSC 115B.

**PSC 235 Introduction to Forensic Science** 3 2 4

A survey of the various sciences and their application to the field of law enforcement. A study of the theory and techniques used in the more common forensic applications, such as blood grouping, blood alcohol, luminol, drug analysis, flammable accelerants, explosives, serial number restoration, firearms, primer residue test, etc.

Prerequisite: CHM 101.



**PSC 240 Firearms and Defensive Tactics** 4 2 3

The course is designed to help the student develop an understanding of the need, use, and respect for all kinds of firearms. Range practice will be given in the use of rifles, shotguns, and pistols with a special effort made to develop proficiency in the use of the service revolver. Instruction will be given in riot control, nonlethal weapons such as tear gas, and defensive tactics used in the handling of arrested persons.

Prerequisite: Admission to the program; permission of the instructor-coordinator.

**POLITICAL SCIENCE**

**POL 102 National Government** 3 0 3

English and colonial background, The Articles of Confederation and the framing of the Federal Constitution. The nature of the federal union; state rights, federal powers, political parties. The general organization and functioning of the national government.

**POL 103 State and Local Government** 3 0 3

A study of state and local government, state-federal interrelationships, the functions and prerogatives of the branches. Problems of administration, legal procedures, law enforcement, police power, taxation, revenues and appropriations. Special attention will be given to North Carolina.

**PSYCHOLOGY**

**PSY 101 Introduction to Psychology** 5 0 5

A course designed specifically for the student pursuing the degree in Mental Health Associate. A study of the various fields of psychology; the development process; emotion, frustration, and adjustment; mental health; attention and perception; problems of group living. Attention is given to the application of these topics to problems of study, self understanding and adjustment to the demands of society.

**PSY 102 General Psychology** 3 0 3

A study of the various fields of psychology; the development process; motivation; emotion; frustration and adjustment; mental health; attention and perception; problems of group living. Attention is given to applications of these topics to problems of study, self understanding and adjustment to the demands of society.

<b>PSY 103 Adolescent Psychology</b>	<b>3</b>	<b>0</b>	<b>3</b>
A study of the nature and source of the problems of adolescents in western culture; physical, emotional, social, intellectual and personality development of adolescents.			
Prerequisite: PSY 102.			
<b>PSY 112 Personality Development</b>	<b>3</b>	<b>0</b>	<b>3</b>
Designed to help the student recognize the importance of the physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on grooming and methods of personality improvement.			
<b>PSY 120 Human Growth and Development</b>	<b>3</b>	<b>0</b>	<b>3</b>
A study of the basic principles of physiological and psychological growth stages of child from conception through adolescence.			
Prerequisite: PSY 102.			
<b>PSY 206 Applied Psychology</b>	<b>3</b>	<b>0</b>	<b>3</b>
A study of the principles of psychology that will be of assistance in the understanding of interpersonal relations on the job. Motivation, feelings, and emotions are considered with particular reference to on-the-job problems. Other topics investigated are employee selection, supervision, job satisfaction, and industrial conflicts. Attention is also given to personal and group dynamics so that the student may learn to apply the principles of mental hygiene to his adjustment problems as a worker and a member of the general community.			
<b>PSY 207 Applied Police Psychology</b>	<b>3</b>	<b>0</b>	<b>3</b>
A study which builds upon the principles of psychology taught in PSY 102. It is designed to assist law enforcement officers in a better understanding of relationships on the job, at home, and in the community as members of the law enforcement team.			
Prerequisite: PSY 102.			
<b>PSY 211 Behavior Disorders I: Theory</b>	<b>3</b>	<b>0</b>	<b>3</b>
A study of general patterns of abnormal behavior with emphasis on biological and environmental causal factors and human coping mechanisms.			
Prerequisite: PSY 101.			
<b>PSY 212 Behavior Disorders II: Modification</b>	<b>3</b>	<b>4</b>	<b>5</b>
A study of selected patterns of deviant behavior with emphasis on the understanding, treatment, and prevention of these personality disorders. Attempts are made to relate personality disorders to role definition and interaction of team members in providing comprehensive mental health services.			
Prerequisite: PSY 211.			
<b>PSY 219 Introduction to Personality</b>	<b>5</b>	<b>0</b>	<b>5</b>
The development of personality and application of concepts on a more or less self-determining system of beliefs, values, and behavior tendencies.			
Prerequisite: PSY 101.			

**PSY 220 Psychology of Learning** 5 0 5

A study of simple learning situations. Most behavior as shown to be complicated compounds whose simpler components abide by a few basic rules. From understanding the learning process comes the methodology for its control.

Prerequisite: PSY 101.

**PSY 222 The Exceptional Child** 5 0 5

A survey course with special emphasis on the mentally retarded and emotionally disturbed child. Social, educational and psychological needs of the exceptional child are studied.

Prerequisite: PSY 120.

**PSY 223 The Addictive Personality** 5 0 5

A survey of environmental and physical factors that differentiate the addict. Stress is given to the theories of cause and treatment.

Prerequisite: PSY 101.

**PSY 225 Introduction to Psychological Testing** 2 3 3

Introduction to psychological tests; nature and application of standardized tests; illustrations of widely used tests; methods of administering, scoring, and interpreting test results.

Prerequisite: PSY 101.

**PSY 229 Abnormal Psychology** 5 0 5

A study of the symptoms, contributing factors, treatment and outcomes of the mentally ill and mentally defective as well as maladjusted, antisocial persons. Classifications and nomenclature of psychoneurosis, psychoses, and other illnesses are discussed.

Prerequisite: PSY 101.

**PSY 230 The Psychology and Physiology of Aging** 3 0 3

A survey course concerning the physical and psychological changes occurring in late middle age and old age with emphasis on the care and treatment of the aged in our society.

Prerequisite: PSY 101.

## **SOCIAL SCIENCE**

**SSC 201 Social Science** 3 0 3

An integrated course in the social sciences, drawing from the fields of anthropology, psychology, history, and sociology.

**SSC 202 Social Science** 3 0 3

A further study of social sciences with emphasis on economics, political science, and social problems as they relate to the individual.

Prerequisite: SSC 201.

**SSC 205 American Institutions** 3 0 3

A study of the effect of American social, economic, and political institutions upon the individual as a citizen and as a worker. The course dwells upon current local, national, and global problems viewed in the light of our political and economic heritage.

**SSC 212 Marriage and the Family** 3 0 3

The 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.  
Prerequisite: SOC 101.

## **SOCIOLOGY**

**SOC 101 Introduction to Sociology** 5 0 5

A course designed specifically for the student pursuing the degree in Mental Health Associate. An introductory course to the principles of sociology. An attempt to provide an understanding of culture, collective behavior, community life, social institutions and social change. Presents the scientific study of man's behavior in relation to other men, the general laws affecting the organization of such relationships and the effects of social life on human personality and behavior.

**SOC 102 Principles of Sociology** 3 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 man's behavior in relations to others, the general principles affecting the organization of such relationships and the effects of social life on human personality and behavior.  
Prerequisite: PSY 102.

**SOC 202 Environmental Sociology** 3 0 3

Environmental impact statements required prior to construction of community, commercial and industrial complexes incorporates political and economical considerations along with technical aspects. This course is designed to train graduates to deal effectively with environmental issues involving society's collective judgement and a great deal of its resources.

***EDUCATION  
VOCATIONAL***



# **AUTOMOTIVE MECHANICS**

## **ONE YEAR -- TWO YEAR OPTION**

### **INTRODUCTION**

#### **Purpose of Curriculum**

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. Thorough understanding of the operating principles involved in the modern automobile comes in class assignments, discussion and shop practice.

Complexity in automotive vehicles increases each year because of scientific discovery and new engineering. These changes are reflected not only in passenger vehicles, but also in trucks, buses and a variety of gasoline powered equipment. This curriculum provides a basis for the student to compare and adapt to new techniques for servicing and repair as vehicles are changed year by year.

#### **Job Description**

Automobile mechanics maintain and repair mechanical, electrical and body parts of passenger cars, trucks, and buses. In some communities and rural areas, they also may service tractors or marine engines and other gasoline powered equipment. Mechanics inspect and test to determine the causes of faulty operation. They repair or replace defective parts to restore the vehicle or machine to proper operating condition. 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 repairing only power steering and power brakes, or automatic transmissions. Usually such specialists have an all round knowledge of automotive repair and may occasionally be called upon to do other types of work.

## AUTOMOTIVE MECHANICS

### SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
PME 1101	Internal Combustion Engines	5	12	9
PHY 1103	Principles of Electricity	3	2	4
MAT 1101	Fundamentals of Mathematics	5	0	5
ENG 1101	Reading Improvement	2	0	2
MEC 1298A	Special Problems in Auto Mechanics	0	3	1
		<u>15</u>	<u>17</u>	<u>21</u>

### SECOND QUARTER

PME 1102	Electrical Systems	5	9	8
ENG 1102	Communication Skills	3	0	3
MEC 1147	Systems of Measurement & Measuring Tools	2	0	2
WLD 1129	Basic Welding	2	3	3
MEC 1298B	Special Problems in Auto Mechanics	3	3	4
		<u>15</u>	<u>15</u>	<u>20</u>

### THIRD QUARTER

PME 1104	Fuel Systems	3	6	5
AHR 1101	Automotive Air Conditioning	3	3	3
PME 1123	Brakes, Chassis, Suspension	3	9	6
PSY 1101	Human Relations	3	0	3
		<u>12</u>	<u>18</u>	<u>17</u>

#### FOURTH QUARTER

PME 1124	Power Trains	3	12	7
PME 1125	Auto Servicing	3	9	6
MEC 1298C	Special Problems in Auto Mechanics	<u>0</u>	<u>3</u>	<u>1</u>
		6	24	14

TOTAL QUARTER HOURS IN COURSES 72

NOTE: A diploma for a four quarter program may be awarded after successful completion. Students may however, elect to return for a second year and further training. In this case, students will enroll in the following course during the summer.

	Course Title	C	L	CH
PME 1184	Practicum	0	39	13

In September, the student will enroll full time and work toward completing the fourth, fifth, and sixth quarters as presented in this catalog.

#### FIFTH QUARTER

PME 1202	Electricity/Electronics	3	9	6
PME 1204	Auto Emission Control Devices	3	6	5
MEC 1112	Machine Shop Processes	1	3	2
MEC 1299A	Special Problems in Auto Mechanics	<u>2</u>	<u>3</u>	<u>3</u>
		9	21	16

#### SIXTH QUARTER

PME 1224	Auto Transmissions	3	9	6
PME 1227	Power Accessories	2	6	4
PME 1226	Advanced Auto Servicing	2	6	4
MEC 1299B	Special Problems in Auto Mechanics	<u>2</u>	<u>0</u>	<u>2</u>
		9	21	16

A student may choose to take only shop and laboratory courses in this curriculum. He would be eligible only for a certificate instead of a regular diploma.

## **CARPENTRY**

### **INTRODUCTION**

#### **Purpose of Curriculum**

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 powertools. The work must conform to local building codes for both residential and commercial structures.

This curriculum in carpentry is designed to train the individual to enter the trade with a background in both shop skills and related information. He must have a knowledge of mathematics, blueprint reading, methods of construction and a thorough knowledge of building materials.

The modern carpenter will work on new construction, maintenance, and repair of many types of structures, both residential and commercial. He should have an understanding of 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. When specializing in a particular phase of carpentry, the job is designated according to the specialty as layout carpenter, framing carpenter, concrete form carpenter, scaffolding carpenter, accoustical and insulating carpenter, and finish carpenter.

#### **Job Description**

The carpenter constructs, erects, installs, and repairs structures and fixtures of wood, plywood, wall board and other materials, using carpenters handtools and powertools to conform to local building codes. He is required to use blueprints, sketches or building plans for information pertaining to type of material, dimensions, layout and design of structure, and method of construction.

## CARPENTRY

### SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
FIRST QUARTER				
ENG 1101	Reading Improvement	2	0	2
MAT 1101	Fundamentals of Mathematics	5	0	5
DFT 1101	Blueprint Reading: Building Trades	0	3	1
CAR 1101	Carpentry	<u>3</u>	<u>15</u>	<u>8</u>
		10	18	16
SECOND QUARTER				
ENG 1102	Communication Skills	3	0	3
MAT 1112	Building Trades Mathematics	3	0	3
DFT 1111	Blueprint Reading & Sketching	0	3	1
CAR 1102	Carpentry: Millwork & Cabinetmaking	<u>3</u>	<u>15</u>	<u>8</u>
		9	18	15
THIRD QUARTER				
PSY 1101	Human Relations	3	0	3
CAR 1113	Carpentry: Estimating	3	3	4
CAR 1103	Carpentry: Framing	<u>3</u>	<u>15</u>	<u>8</u>
		9	18	15
FOURTH QUARTER				
CAR 1114	Building Codes	3	0	0



BUS 1103	Small Business Operations	3	0	3
CAR 1104	Carpentry: Finishing	<u>3</u>	<u>18</u>	<u>9</u>
		9	18	15
TOTAL QUARTER HOURS IN COURSES		61		

## ELECTRICAL INSTALLATION AND MAINTENANCE

### INTRODUCTION

#### Purpose of Curriculum

The rapid expansion of the national economy and the increasing development of new electrical products is providing a growing need for qualified people to install and maintain electrical equipment. By mid-1960, more than 350,000 were employed as either construction electricians or maintenance electricians. Between 5,000 and 10,000 additional tradesmen are required each year to replace those leaving the industry. It is expected that the total requirements for electrical tradesmen will reach 500,000 by 1966 and 700,000 by 1970. The majority of the electrical tradesmen today are trained through apprenticeship or on-the-job training programs.

This curriculum guide will provide a training program in the basic knowledge, fundamentals, and practices involved in the electrical trades. A large portion of the program is devoted to laboratory and shop instruction which is designed to give the student practical knowledge and application experience in the fundamentals taught in class.

#### Job Description

The graduate of the electrical trades program will be qualified to enter an electrical trade as an on-the-job trainee or apprentice, where he will assist in the planning, layout, installation, check out, and maintenance of systems in residential, commercial, or industrial plants. He 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. He 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 through upgrading courses offered in the center.

**ELECTRICAL INSTALLATION & MAINTENANCE**

**SUGGESTED CURRICULUM BY QUARTERS**

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
MAT 1101	Fundamentals of Mathematics	5	0	5
PHY 1101	Applied Science	3	2	4
ENG 1100	Reading & Communication Skills	5	0	5
PSY 1101	Human Relations	3	0	3
BUS 1103	Small Business Operations	3	0	3
DFT 1114	Blueprint Reading: Electrical	0	6	2
ELC 1114	Electrical Safety	<u>3</u>	<u>0</u>	<u>3</u>
		22	8	25

**SECOND QUARTER**

ELC 1112	Direct & Alternating Current	5	12	9
PHY 1102	Applied Science	3	2	4
ELC 1124A	Residential Wiring	<u>4</u>	<u>6</u>	<u>6</u>
		12	20	19

**THIRD QUARTER**

ELC 1124B	Residential Wiring	1	3	2
ELC 1125	Commercial & Industrial Wiring	5	12	9
ELN 1118	Industrial Electronics	<u>3</u>	<u>6</u>	<u>5</u>
		9	21	16

## FOURTH QUARTER

ELC 1113	Alternating Current & Direct Current Machines & Controls	5	12	9
ELN 1119	Industrial Electronics	3	6	5
ELC 1126	Electrical Safety OSHA	2	0	2
ELC 1115	Special Problems in Electricity	<u>2</u>	<u>0</u>	<u>2</u>
		12	18	19
TOTAL QUARTER HOURS IN COURSES		79		

## ELECTRONIC SERVICING

### ONE YEAR -- TWO YEAR OPTION

## INTRODUCTION

### Purpose of Curriculum

Within recent years, improved electronic techniques have provided increased need for the electronic serviceman. These developments require expanded knowledge and skill of the individual who would qualify as a competent and up-to-date serviceman.

This curriculum guide provides a training program, which will provide the basic knowledge and skills involved in the installation, maintenance, and servicing of electronic systems. A large portion of the time is spent in the laboratory verifying electronic principles and developing servicing techniques.

### Job Description

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

## ELECTRONIC SERVICING

### SUGGESTED CURRICULUM BY QUARTERS

Course Title	C	L	CH
<b>FIRST QUARTER</b>			
ELC 1112A      D.C.Theory & Practice	5	15	10
ELN 1101      Troubleshooting Concepts	3	0	3
ENG 1101      Reading Improvement	2	0	2
MAT 1101      * Fundamentals of Mathematics	5	0	5
ELN 1130      ** Small Appliance Repair	5	0	5
ELC 1200      *** Electronic Servicing Seminar	<u>2</u>	<u>0</u>	<u>2</u>
	17	15	22

### SECOND QUARTER

ELC 1112B      A.C. Theory & Practice	5	15	10
MAT 1115      Electrical Mathematics	5	0	5
ENG 1102      Communication Skills	3	0	3
ELC 1201      Electronic Servicing Seminar	<u>2</u>	<u>0</u>	<u>2</u>
	15	15	20

### THIRD QUARTER

ELN 1103      Introduction to Control Devices	5	15	10
ELN 1125      Radio Receiver Servicing	3	0	3
MAT 1116      Electrical Mathematics	5	0	5
ELC 1202      Electronic Servicing Seminar	<u>2</u>	<u>0</u>	<u>2</u>
	15	15	20

\* Required if deficient in basic mathematics.

\*\* Substitute if proficient in MAT 1101.

\*\*\* Required if proficient in ENG 1101.

#### FOURTH QUARTER

ELN 1127	Television Receiver Circuits & Servicing	10	20	17
		—	—	—
		10	20	17

#### FIFTH QUARTER

ELN 1104	Application of Control Devices	5	15	10
ELN 1107	Communications	3	0	3
PHY 1101	Applied Science	3	2	4
ELC 1204	Electronic Servicing Seminar	<u>2</u>	<u>0</u>	<u>2</u>
		13	17	19

#### SIXTH QUARTER

ELN 1105	Industrial Electronics & Instrumentation	5	15	10
ELN 1111	Audio Visual Equipment Repair	5	0	5
BUS 1103	Small Business Management Operations	3	0	3
ELC 1205	Electronic Servicing Seminar	<u>2</u>	<u>0</u>	<u>2</u>
		15	15	20

#### SEVENTH QUARTER

ELN 1106	Maintenance & Analysis of Electronic Systems	5	15	10
ELN 1109	Television Broadcasting	5	0	5
PSY 1101	Human Relations	3	0	3
ELC 1206	Electronic Servicing Seminar	<u>2</u>	<u>0</u>	<u>2</u>
		15	15	20

TOTAL QUARTER HOURS IN COURSES 138



## **HEATING, REFRIGERATION, & AIR CONDITIONING**

### **INTRODUCTION**

#### **Purpose of Curriculum**

In recent years, the use of heating, refrigeration, and air conditioning equipment has increased tremendously. Practically all new building construction for business and commercial use have "year-round" air conditioning systems. Many new homes now have air conditioning and the trend is toward greater use of "year-round" systems for cooling and heating. Transportation systems and food industries are requiring greater use of refrigeration systems for transit, storage and display of products. With this great upswing in the use of heating, refrigeration, and air conditioning equipment, a greater demand is made on trained personnel to plan and supervise installations and to supervise the operation and maintenance of this equipment. This curriculum is designed to prepare the student to assist in planning, installing, operating and maintaining air conditioning equipment. The required technical information is presented and related skills are developed which will 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.

#### **Job Description**

The heating, refrigeration, and air conditioning technician may be employed in areas of sales, installation, maintenance, production drafting, systems design, or as a research engineering assistant. He is involved with equipment for regulating temperature and humidity. He works with control systems, ducts, and piping for distribution of air, water, steam, and refrigerants. His duties may be concerned with any or all of these systems and components.

## HEATING, REFRIGERATION & AIR CONDITIONING

### SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
MAT 1101	Fundamentals of Mathematics	5	0	5
PHY 1101	Applied Science	3	2	4
ENG 1101	Reading Improvement	2	0	2
DFT 1116	Blueprint Reading for Air Conditioning	2	6	4
AHR 1116	Oil Burner Installation & Service	<u>4</u>	<u>6</u>	<u>6</u>
		16	14	21

### SECOND QUARTER

AHR 1120	Principles of Refrigeration	6	9	9
AHR 1117	Gas Burners, Electric Heat & Liquid Heat Applications	4	3	4
ELC 1101	Applied Electricity	2	0	2
WLD 1102	Basic Gas Welding	0	3	1
ENG 1102	Communications Skills	<u>3</u>	<u>0</u>	<u>3</u>
		15	15	19

### THIRD QUARTER

AHR 1122	Commercial Refrigeration	3	8	6
AHR 1123	Principles of Air Conditioning	2	4	4
AHR 1125	Duct Design & Installation	2	6	4
ELC 1102	Applied Electricity	1	3	2
AHR 1100A	Special Problems in Refrigeration	<u>1</u>	<u>0</u>	<u>1</u>
		9	21	17

## FOURTH QUARTER

AHR 1126	All Year Comfort Systems	3	9	6
AHR 1109	Job Planning & Estimating	3	0	3
PSY 1101	Human Relations	3	0	3
AHR 1128	Automatic Controls	4	6	6
AHR 1100B	Special Problems in Refrigeration	2	0	2
		<hr/>	<hr/>	<hr/>
		15	15	20
TOTAL QUARTER HOURS IN COURSES		77		

## MACHINIST TRADE

### ONE YEAR -- TWO YEAR OPTION

## INTRODUCTION

### Purpose of Curriculum

This curriculum was prepared to meet a definite need for training of machinists. Surveys recently completed in North Carolina show that many of the existing industries lack time and facilities for training enough machinists to meet present and planned needs. Expanding industries already located in our State and new industries under development invariably express the need for skilled craftsmen who have the background knowledge and potential to advance.

This guide is designed to give learners the opportunity to acquire basic skills and the related technical information necessary to gain employment and build a profitable career in the machine shop industry in the state. It is comprised of the joint views of committees responsible for its development.

### Job Description

The machinist is a skilled metal worker who shapes metal parts by using machine tools and hand tools. His training and experience enable him to plan and carry through all the operations needed in turning out a machined product and to switch readily from one kind of product to another. A machinist is able to select the proper tools and materials required for each job and to plan the cutting and finishing work according to blueprint or written specifications. He makes standard

shop computations relating to dimensions of work, tooling, feeds, and speeds of machining. He often uses precision measuring instruments such as micrometers and gauges to measure the accuracy of his work to thousandths of an inch.

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

## MACHINIST TRADE

### SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
MEC 1101	Machine Shop Theory & Practice	3	12	7
MAT 1101	Fundamentals of Mathematics	5	0	5
DFT 1201	Drafting: Mechanical I	1	3	2
PHY 1101	Applied Science	3	2	4
ENG 1101	Reading Improvement	<u>2</u>	<u>0</u>	<u>2</u>
		14	17	20

### SECOND QUARTER

MEC 1102	Machine Shop Theory & Practice	3	12	7
MAT 1102	Algebra	5	0	5
DFT 1202	Drafting: Mechanical II	1	3	2
PHY 1102	Applied Science	3	2	4
ENG 1102	Communication Skills	<u>3</u>	<u>0</u>	<u>3</u>
		15	17	21

### THIRD QUARTER

MEC 1103	Machine Shop Theory & Practice	3	12	7
----------	--------------------------------	---	----	---

MAT 1104	Trigonometry	3	0	3
DFT 1105	Blueprint Reading: Mechanical	0	3	1
MEC 1115	Metallurgy (Ferrous Metals)	2	3	3
PSY 1101	Human Relations	<u>3</u>	<u>0</u>	<u>3</u>
		11	18	17

#### FOURTH QUARTER

MEC 1104	Machine Shop Theory & Practice	3	12	7
MAT 1103	Geometry	3	0	3
DFT 1106	Blueprint Reading: Mechanical	0	3	1
MEC 1116	Metallurgy (Non-Ferrous Metals)	2	3	3
WLD 1101	Basic Gas Welding	<u>0</u>	<u>3</u>	<u>1</u>
		8	21	15

TOTAL QUARTER HOURS IN COURSES 73

Two quarters of advanced training may be offered to outstanding students after satisfactory completion of the four quarter course of study and upon recommendation of their curriculum instructors.

#### FIFTH QUARTER

MEC 1105	Machine Shop Theory & Practice	3	15	8
MAT 1123	Machinist Mathematics	3	0	3
MEC 1221	Machine Maintenance	<u>2</u>	<u>3</u>	<u>3</u>
		8	18	14

#### SIXTH QUARTER

MEC 1106	Machine Shop Theory & Practice	3	12	7
DFT 1203	Drafting: Mechanical III	0	6	2
MEC 1107	Jigs & Fixtures	<u>2</u>	<u>6</u>	<u>4</u>
		5	24	13



TOTAL QUARTER HOURS IN COURSES FOR  
STUDENTS THAT COMPLETE SIX QUARTERS 100

Student may also, with approval of their advisor, enroll in one of the following elective courses, which may be assigned for any quarter of study.

Course Title

CURRICULUM ELECTIVES		C	L	CH
MEC 1100A	Special Projects - Machine Shop	2	0	2
MEC 1100B	Special Projects - Machine Shop	2	0	2
MEC 1100C	Special Projects - Machine Shop	3	0	3
MEC 1100D	Special Projects - Machine Shop	3	0	3
MEC 1100E	Special Projects - Machine Shop	4	0	4

**MECHANICAL DRAFTING**

**INTRODUCTION**

**Purpose of Curriculum**

This curriculum is designed to prepare students to enter the field of mechanical drafting. The first two quarters contain courses basic to all fields of drafting. The third and fourth quarters contain specialization and related courses that prepare one to enter mechanical drafting occupations.

Each course is prepared to enable an individual to advance rapidly in drafting proficiency upon entering the field of work. Courses are arranged in sequence to develop drafting skills and proficiency in mathematics and science. The draftsman associates with many levels of personnel; administrative, architects, engineers, skilled workmen and must be able to communicate effectively with them. Courses to develop knowledge and skills in communication and human relations are provided to assist the student in developing understandings and confidence in his relations with other persons.

**Job Description**

A draftsman prepares clear, complete, and accurate working plans and detail drawings from rough or detailed sketches or notes for engineering or manufacturing purposes according to the specified dimensions. He makes a final

sketch of the proposed drawing, checking dimension of parts, materials to be used, the relation of one part to another, the relation of the various parts to the whole structure, and makes any adjustments and/or changes necessary or desired. He inks in lines and letters on pencil drawings as required, exercises manual skill in the manipulation of triangle, T-square, and other drafting tools, lays tracing paper on drawings and traces drawings in pencil or ink, makes charts for representation of statistical data, makes finished designs from sketches and utilizes knowledge of various machines, engineering practices, mathematics, building materials, and other physical sciences to complete the drawings.

A mechanical draftsman performs the general duties of a draftsman, also specializes in making rough draft sketches of proposed mechanical devices and then drawing necessary details and prepares accurate scale drawings of parts of machines from specifications.

**MECHANICAL DRAFTING**

**SUGGESTED CURRICULUM BY QUARTERS**

Course Title	C	L	CH
<b>FIRST QUARTER</b>			
DFT 1121      Drafting	3	12	7
MAT 1101      Fundamentals of Mathematics	5	0	5
ENG 1101      Reading Improvement	2	0	2
PHY 1101      Applied Science	3	2	4
	<u>13</u>	<u>14</u>	<u>18</u>

**SECOND QUARTER**

DFT 1122      Drafting	3	6	5
DFT 1125      Descriptive Geometry	2	3	3
MAT 1102      Algebra	5	0	5
ENG 1102      Communication Skills	3	0	3
PHY 1102      Applied Science	3	2	4
	<u>16</u>	<u>11</u>	<u>20</u>

### THIRD QUARTER

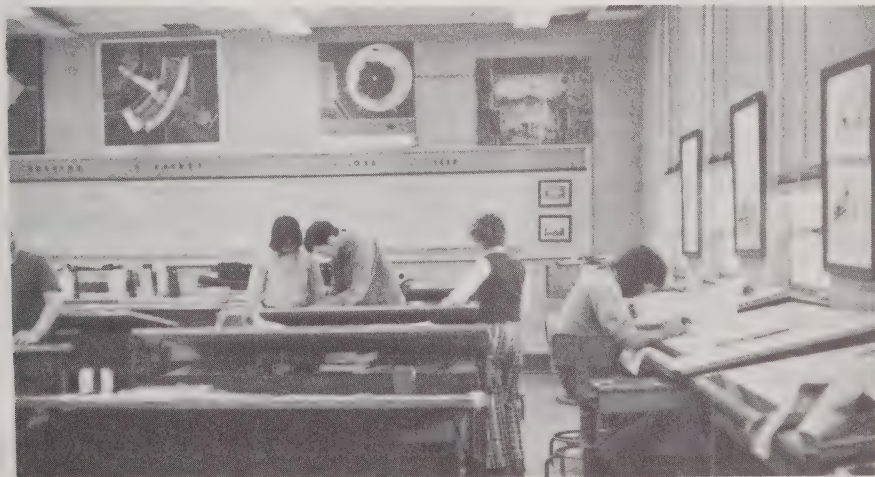
DFT 1131	Mechanical Drafting	3	12	7
MAT 1104	Trigonometry	3	0	3
PSY 1101	Human Relations	3	0	3
MEC 1113	Shop Processes	2	3	3
MEC 1115	Metallurgy - Ferrous Metals	2	3	3
		<u>13</u>	<u>18</u>	<u>19</u>

### FOURTH QUARTER

DFT 1132	Mechanical Drafting	3	12	7
MEC 1114	Shop Processes	0	3	1
MEC 1116	Metallurgy - Non-Ferrous Metals	2	3	3
MEC 1425	Statics & Strength of Materials	3	2	4
MAT 1103	Geometry	3	0	3
		<u>11</u>	<u>20</u>	<u>18</u>

TOTAL QUARTER HOURS IN COURSES 75

A student may choose to take only the shop and laboratory courses in this curriculum. He would be eligible only for a certificate instead of the regular diploma.



# PRACTICAL NURSE EDUCATION

## INTRODUCTION

### Purpose of Curriculum

The graduate licensed practical nurse is an important member of the health team. Throughout the one-year program, the student is expected to continually acquire knowledge and understandings related to nursing and the biological and social sciences and to develop skills related to nursing practice, communications, interpersonal relations and use of good judgement.

Students are selected on the basis of demonstrated aptitude for nursing, as determined by pre-entrance tests, interviews with faculty members, high school records, character references and physical examinations. Graduates of accredited programs of practical nurse education are eligible to write the licensing examination given by the N.C. Board of Nursing. A passing score entitles the individual to receive a license and to use a legal title, "Licensed Practical Nurse."

The primary objective of the Practical Nurse Education Program is to prepare graduates to qualify for employment in an attractive, dignified career offering opportunity for rewarding service and increasing financial rewards.

### Job Description

The licensed practical nurse is prepared to function in a variety of situations:

- Hospitals of all types
- Nursing homes
- Clinics
- Doctors and dentists offices
- Federal Service Agencies
- Public health facilities in some localities.

In all situations, the licensed practical nurse functions under the supervision of a registered nurse and/or licensed physician. The supervision may be minimal in situations where the patient's condition is stable and not complex; or it may consist of continuous direction in cases requiring the knowledge and skills of the registered nurse or physician.

Job requirements for the LPN include suitable personal characteristics, ability to adapt knowledge and understandings of nursing principles to a variety of situations, technical skills for performance of bedside nursing, appreciation for differences of people and for the worth of every individual, a desire to serve and help others, and readiness to conform to the requirements of nursing ethics and hospital policies.

## PRACTICAL NURSE EDUCATION

### SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CL	CH
<b>FIRST QUARTER</b>					
PNE 1010	Fundamentals of Practical Nursing	6	6	0	9
PNE 1011	Anatomy & Physiology	4	0	0	4
PNE 1012	Vocational Adjustment	3	0	0	3
PNE 1013	Basic Nutrition	3	0	0	3
MAT 1014	Practical Math for Nurses	3	0	0	3
PNE 1015	Special Problems in Nursing	0	2	0	1
PNE 1016	Special Problems in Nursing [Elective]	0	4	0	2
		<hr style="width: 100%;"/>	<hr style="width: 100%;"/>	<hr style="width: 100%;"/>	<hr style="width: 100%;"/>
		19	8-12	0	25

### SECOND QUARTER

PNE 1020	Medical-Surgical Nursing I	5	0	0	5
PNE 1021	Drugs & Drug Administration	3	0	0	3
PNE 1022	Human Relations	3	0	0	3
PNE 1023	Clinical Experience [Medical-Surgical--11 weeks]	0	0	21	7
PNE 1024	Nursing Studies Lab	<u>0</u>	<u>3</u>	<u>0</u>	<u>1</u>
		11	3	21	19

### THIRD QUARTER

PNE 1030	Medical-Surgical Nursing II	10	0	0	10
PNE 1031	Clinical Experience [Medical-Surgical--11 weeks]	0	0	21	7
PNE 1032	Nursing Studies Lab	<u>0</u>	<u>3</u>	<u>0</u>	<u>1</u>
		10	3	21	18



FOURTH QUARTER

PNE 1040	Personal & Vocational Relations	2	0	0	2
PNE 1041	Maternity Nursing	3	0	0	3
PNE 1042	Nursing of Children	3	0	0	3
PNE 1043	Clinical Experience	0	0	21	7
	[OB - Pediatrics-11 weeks]	—	—	—	—
		8	0	21	15

Total Quarter Hours in Courses 77

TEACHER ASSISTANT

INTRODUCTION

Purpose of Curriculum

The program is designed to prepare the student for work in assisting the professional teacher, freeing the latter for her teaching duties. The students will receive extensive training for duties normally assigned to assistants--audio visual aids, typing, reading techniques, as well as other enrichment courses.

Job Description

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

## TEACHER ASSISTANT

### SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
ENG 1104	Basic Communications I	4	0	4
PSY 1102	Child Development	3	0	3
MAT 1101	Fundamentals of Mathematics	5	0	5
EDU 1100	Orientation & Observation	1	6	3
SOC 1101	Introduction to Sociology	3	0	3
PED 1102	Creative Activities	3	0	3
		<hr style="width: 100%;"/>	<hr style="width: 100%;"/>	<hr style="width: 100%;"/>
		19	6	21

### SECOND QUARTER

ENG 1105	Basic Communcations II	4	0	4
MAT 1107	Concepts of New Math	4	0	4
PSY 1103	Child Development	3	0	3
BUS 1102	Beginning Typewriting	2	3	3
TAI 1106	Teacher Assistant Internship	0	20	5
		<hr style="width: 100%;"/>	<hr style="width: 100%;"/>	<hr style="width: 100%;"/>
		13	23	19

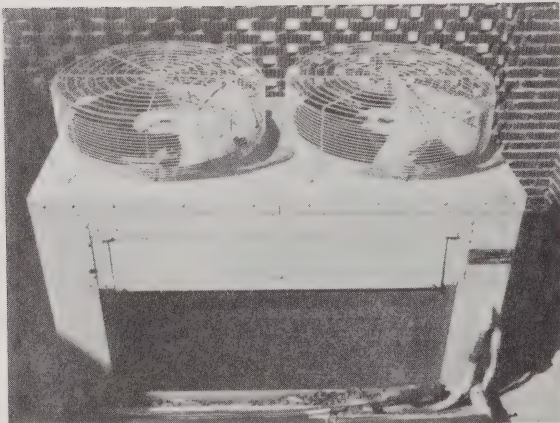
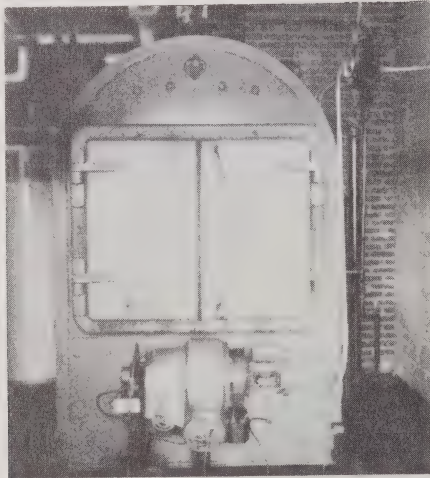
### THIRD QUARTER

ENG 1106	Basic Communications III	4	0	4
ENG 1107	Reading Techniques	3	0	3
EDU 1103	Special Education	3	0	3
BUS 1104	Intermediate Typewriting	2	3	3
TAI 1107	Teacher Assistant Internship	0	20	5
		<hr style="width: 100%;"/>	<hr style="width: 100%;"/>	<hr style="width: 100%;"/>
		12	23	18

FOURTH QUARTER

TAI 1101	Visual Aids Techniques	5	0	5
TAI 1105	Library Techniques	3	0	3
ENG 1103	Report Writing	3	0	3
EDU 1104	Social Science	3	0	3
EDU 1101	General Education	2	0	2
		<hr/>	<hr/>	<hr/>
		16	0	16

TOTAL QUARTER HOURS IN COURSES 74



## AIR CONDITIONING, HEATING, AND REFRIGERATION

### **AHR 1100A Special Problems in Refrigeration**      1            0            1

This weekly special problem session affords all heating, refrigeration, and air conditioning students an opportunity to explore any problems that may arise in other courses given in the Heating, Refrigeration and Air Conditioning Curriculum.

### **AHR 1100B Special Problems in Refrigeration**      2            0            2

This weekly special problem session affords all heating, refrigeration, and air conditioning students an opportunity to explore any problem that may arise in other courses given in the Heating, Refrigeration, and Air Conditioning Curriculum.

### **AHR 1101 Automotive Air Conditioning**            3            3            3

General introduction to the principles of refrigeration; study of the assembly of the components and connections necessary in the mechanisms, the methods of operation, and control; proper handling of refrigerants in charging the system. Use of testing equipment in diagnosing trouble, conducting efficiency tests and general maintenance work.

### **AHR 1109 Job Planning and Estimating**            3            0            3

Estimating loads and capacity of refrigeration and cooling units through the use of manuals, tables, and charts. Students will be expected to acquire sufficient knowledge to determine and recommend the adequate sizing of refrigeration and cooling units for specific uses either in homes or industry.

Prerequisite: MAT 1101.

### **AHR 1116 Oil Burner Installation and Service**      4            6            6

An introduction to the principles of heating, terminology, and the use and repair of equipment. Also included will be maintenance and service of heating units and diagnosing troubles within installation. Temperature and thermostat controls are also a part of this course.

Prerequisite: None.

### **AHR 1117 Gas Burners, Electric Heat and Liquid Heat Applications**            4            3            4

An introduction to the principles of heating with the use of gas, electric, or liquid heat units. The course includes installation in service to the above forms of heating units. The course will also include servicing and corrective maintenance techniques as it applies to the above three form of heating units.

Prerequisite: None.

### **AHR 1120 Principles of Refrigeration**            6            9            9

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 a system. Other topics to be included will be the basic laws of





## BUSINESS

**BUS 1102 Beginning Typewriting** 2 3 3

Emphasis is on the study of keyboard, the mechanics of the typewriter necessary for the acquisition of elementary typewriting skills, and development of speed and accuracy.

**BUS 1103 Small Business Operations** 3 0 3

An introduction to the business world, problems of small business operation, 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 1104 Intermediate Typewriting** 2 3 3

Continuation of BUS 1102. Emphasis is on improving typewriting skills, manuscript writing, stencil making, etc.

Prerequisite: BUS 1102 or equivalent.

## CARPENTRY

**CAR 1101 Carpentry** 3 15 8

A brief history of carpentry and present trends of the construction industry. The course will involve operation, care and safe use of carpenters handtools and powertools in cutting, shaping and joining construction materials used by the carpenter. Major topics of study will include theoretical and practical applications involving: materials and methods of construction, building layout, preparation of site, footings and foundation wall construction including form construction and erection.

Prerequisite: None.

**CAR 1102 Carpentry: Millwork & Cabinetmaking** 3 15 8

Cabinetmaking and millwork as performed by the general carpenter for building construction. Use of shop tools and equipment will be emphasized in learning methods of construction of millwork and cabinetry. Practical applications will include measuring, layout and construction of: base and wall cabinets, built in desk, door and window frames, stairs, and interior and exterior cornice and trim.

Materials and finishes will also be studied.  
 Prerequisites: CAR 1101, DFT 1110.

**CAR 1103 Carpentry: Framing** 3            15            8

Instruction is given in the principles and practices of frame construction beginning with the foundation sills and including: floor joist, subfloor, wall studs, ceiling joist, rafters, bridging, bracing, sheathing and interior wall partition. Roof construction includes the layout and construction methods of common types of roofs using standard rafter construction, truss construction, and post and beam construction. Application and selection of sheathing and roofing is included. Consideration is given to the coordination of carpentry work with installation of the mechanical equipment such as: electrical, air conditioning, heating and plumbing.  
 Prerequisites: CAR 1101, DFT 1111.

**CAR 1104 Carpentry: Finishing** 3            18            9

Exterior and interior trim and finish carpentry will complete the general carpentry program. Included will be materials and methods used in finishing carpentry such as: exterior cornice, door and window trim, interior flooring, door and window facing, moldings, and cornice construction; installation of hardware; and installation of built in equipment and cabinets.  
 Prerequisites: CAR 1103, DFT 1111.

**CAR 1113 Carpentry: Estimating** 3            3            4

This is a 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.  
 Prerequisites: DFT 1111, MAT 1112.

**CAR 1114 Building Codes** 3            0            3

A study is made of building codes and the minimum requirements for local, county, and state construction regulations. This involves safety, sanitation, mechanical equipment and materials. Also, a review will be made of the minimum property requirements of the Federal Housing Administration and the North Carolina State Code.  
 Prerequisite: CAR 1103.  
 Corequisite: CAR 1104.

**DRAFTING**

**DFT 1101 Blueprint Reading: Building Trades** 0            3            1

Development of ability to read and interpret blueprints, charts, and service

manuals. Information on the basic principles of lines, views, dimensions, and notes. A course designed to give the student a broad knowledge of measuring and to interpret those instruments used to measure all factors relevant to engine repairs.

**DFT 1105 Blueprint Reading: Mechanical                    0                    3                    1**

Further practice in interpretation of blueprints as they are used in industry; study of prints supplied by industry; making of operations; introduction to drafting room procedures; sketching as a means of passing on ideas, information and processes.

Prerequisite: DFT 1104 or DFT 1202.

**DFT 1106 Blueprint Reading: Mechanical                    0                    3                    1**

Advanced blueprint reading and sketching as related to detail and assembly drawings used in machine shops. The interpretation of drawings of complex parts and mechanisms for features of fabrication, construction and assembly.

Prerequisite: DFT 1105.

**DFT 1110 Blueprint Reading: Building Trades            0                    3                    1**

Principles of interpreting blueprints and specifications common to the building trades. Development of proficiency in making three view and pictorial sketches.

**DFT 1111 Blueprint Reading and Sketching                0                    3                    1**

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 view and pictorial sketches.

Prerequisite: DFT 1110.

**DFT 1112 Blueprint Reading & Sketching I                0                    3                    1**

Designed to develop abilities in reading complex drawings in the masonry field. Blueprints of residential and commercial buildings will be studied with emphasis on the plot plan, floor plan, basement and/or foundation plan, walls and various detailed drawings of masonry work.

Prerequisite: DFT 1111.

**DFT 1113 Blueprint Reading & Sketching III              0                    3                    1**

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 will be a part of this course.

Prerequisite: DFT 1110.

**DFT 1114 Blueprint Reading: Electrical                    0                    6                    2**

Principles of interpreting blueprints and specifications common to the building trades. Development of proficiency in making three view and pictorial sketches. 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 will be a part of this course.

**DFT 1116 Blueprint Reading for Air Conditioning**      2                      6                      4

Interpretation and reading of blueprints. Information on the basic principles of the blueprint: lines, views, dimensioning procedures and notes. The teaching of fundamentals, sketching and drawing as may be found in the heating, refrigeration, and air conditioning trades. Course will include some drawings of electrical circuits, heating controls and elements, refrigeration controls, and similar drawings as may be seen on blueprints related to these trades.

**DFT 1121 Drafting**    3                      12                      7

An introduction to drafting and the study of drafting practices. Instruction is given in the selection, use and care of instruments, singlestroke lettering, applied geometry, freehand sketching consisting of orthographic and pictorial drawings. Orthographic projection, reading and instrument drawing of principal views, single auxiliary views (primary), and double (oblique) auxiliary views will be emphasized. Dimensioning and note practices will be studied with reference to the American Standards Association practices. Methods of reproducing drawings will be included at the appropriate time.

**DFT 1122 Drafting**    3                      6                      5

The trainee will study simple and successive revolutions and their applications to practical problems. Sections and conventions will be studied and both detail and assembly sections will be drawn. Intersections and developments will be studied by relating the drawing to the sheet metal trades. Models of the assigned drawings will be made from construction paper, cardboard, or similar materials as a proof of the solution to the problems drawn. Methods of drawing and projecting axonometric, oblique, and perspective drawings will be studied with emphasis on the practical applications of pictorial drawings. Various methods of shading will be introduced and dimensioning and sectioning of oblique and exonometric pictorials will be done.

Prerequisite: DFT 1121.

**DFT 1125 Descriptive Geometry**                              2                      3                      3

Graphical analysis of space problems. The problems deal with practical design elements involving points, lines, planes, connectors, and a combination of these. Included as problems dealing with solid geometry theorems. Where applicable, each graphical solution shall be accompanied by the analytical solution.

Prerequisite: DFT 1121.

**DFT 1131 Mechanical Drafting**                              3                      12                      7

An introduction to mechanical drafting beginning with problems concerning precision and limit dimensioning. Methods fastening materials and fasteners; keys, rivets, springs, and welding. Symbols will be studied and drawings will be made involving these items. Principles of design will be introduced with study of basic mechanisms of motion transfer; gears, cams, calculating dimensions will be studied. Drawings will be made involving these mechanisms.

Prerequisite: DFT 1121.



**DFT 1132 Mechanical Drafting** 3 12 7

Principles of design sketching, design drawings, layout drafting, detailing from layout drawings, production drawings and simplified drafting practices constitute area of study. Forging and casting drawings will be made from layouts. Specifications, parts list and bill of materials are emphasized in this course. The student will develop a complete set of working drawings of a tool, jig, fixture or simple machine and learn principles of design, handbook and manual usage.

Prerequisite: DFT 1131.

**DFT 1201 Drafting: Mechanical I** 1 3 2

Introduction to drafting room procedures, sketching as a means of passing on ideas, information and processes; the use of drafting instruments in the practice of lettering, dimensioning, orthographic projections and working drawings.

**DFT 1202 Drafting: Mechanical II** 1 3 2

Additional instruction and practice in orthographic projections, working drawings, lettering and dimensioning; as well as introduction to sectioning, pictorial drawings, and the use of drawing instruments for the graphical solution of geometrical problems. Some emphasis placed on interpretation of shop blueprints to better prepare students for DFT 1105.

Prerequisite: DFT 1201.

**DFT 1203 Drafting: Mechanical III** 0 6 2

A continued study of orthographic projection with emphasis on working drawings for manufacturing processes, detailing, isometric and oblique drawings and an understanding of design. Considerable emphasis to be given to the drawing of fasteners, cams, gears, etc. Drafting standards for assembly drawings to be studied.

Prerequisite: DFT 1202.

**EDUCATION**

**EDU 1100 Orientation and Observation** 1 6 3

An introductory course designed to acquaint the student with the purpose, requirements, responsibilities, attitudes, and the roles of teacher assistants in the public schools.

**EDU 1101 General Education I** 1 0 1

This course is designed to instruct the students in the function and preparation of public school registers, cumulative folders, health record forms and report cards.

**EDU 1103 Special Education** 3 0 3

This course is offered to acquaint the students with the characteristics and abilities of students who are classified as special education students -- retarded, gifted, and emotionally or physically handicapped students.



**EDU 1104 Social Science** 3 0 3

This course is a study of characteristics, attitudes, and problems in working with students who are culturally deprived.

**ELECTRICITY**

**ELC 1101 Applied Electricity** 2 0 2

The use and care of test instruments and equipment used in servicing electrical apparatus for air conditioning and refrigeration installations. Electrical principles and procedures for trouble shooting of the various electrical devices used in air conditioning, heating, and refrigeration equipment. Included will be transformers, various types of motors and starting devices, switches, electrical heating devices and wiring.

**ELC 1102 Applied Electricity** 1 3 2

The use and care of test instruments and equipment used in servicing electrical apparatus for air conditioning and refrigeration installations. Electrical principles and procedures for trouble shooting of the various electrical devices used in air conditioning, heating and refrigeration equipment. Included will be transformers, various types of motors and starting devices, switches, electrical heating devices and wiring.

Prerequisite: ELC 1101.

**ELC 1112 Direct and Alternating Current** 5 12 9

A study of the electrical structure of matter and electron theory, the relationship between voltage, current, and resistance in series, parallel, and series parallel circuits. An analysis of direct current circuits by Ohm's Law and Kirchoff's Law. A study of the sources of direct current voltage potentials. Fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance. Analysis of alternating current circuits.

**ELC 1112A Direct Current Theory and Practice** 5 15 10

A study of the structure of matter and the electron theory, the relationship between voltage, current and resistance in series, parallel and series parallel circuits. Analysis of direct current circuits by Ohm's Law and Kirchoff's Law; sources of direct current potentials.

**ELC 1112B Alternating Current Theory & Practice** 5 15 10

A study of the fundamental concepts of alternating current including the generation of sine waves and other non-sinusoidal waveforms; a study of reactance, impedance, power, resonance, and alternating current analysis.

**ELC 1113 Alternating Current & Direct Current Machines & Controls** 5 12 9

Provides fundamental concepts in single and polyphase alternating current circuits, voltages, currents, power measurements, transformers, and motors. Instruction in the use of electrical test instruments in circuit analysis. The basic concepts of AC and DC machines and simple system controls. An introduction to the type control used in small appliances such as: thermostats, times, or

sequencing switches.

Prerequisites: ELC 1112, MAT 1115.

<b>ELC 1114 Electrical Safety</b>	<b>3</b>	<b>0</b>	<b>3</b>
-----------------------------------	----------	----------	----------

Emphasis is placed on the use of electrical test equipment to insure job safety and to prevent shock. The proper first aid techniques for treating shock victims are also stressed.

<b>ELC 1115 Special Problems in Electricity</b>	<b>2</b>	<b>0</b>	<b>2</b>
---	----------	----------	----------

Special indepth projects to supplement the current quarters instruction.

<b>ELC 1124A Residential Wiring</b>	<b>4</b>	<b>6</b>	<b>6</b>
-------------------------------------	----------	----------	----------

Provides instruction and application in the fundamentals of blueprint reading, planning, layout and installation of wiring in residential applications such as: services, switchboards, lighting, fusing, wire sizes, branch circuits, and conduits. National Electric Code Regulations in actual building mock-ups.

Prerequisite: DFT 1113.

<b>ELC 1124B Residential Wiring</b>	<b>1</b>	<b>3</b>	<b>2</b>
-------------------------------------	----------	----------	----------

Continued practice in utilizing the skills acquired in ELC 1124A. Major emphasis will be on the National Electric Code Regulations in actual building mock-ups.

<b>ELC 1125 Commercial and Industrial Wiring</b>	<b>5</b>	<b>12</b>	<b>9</b>
--	----------	-----------	----------

Layout, planning, and installation of wiring systems in commercial and industrial complexes with emphasis upon blueprint reading and symbols, and related National Electrical Codes, and application of the fundamentals to practical experience in wiring, conduit preparation and installation of simple systems.

Prerequisites: ELN 1118, ELC 1124.

<b>ELC 1126 Electrical Safety OSHA</b>	<b>2</b>	<b>0</b>	<b>2</b>
--	----------	----------	----------

The safety rules and regulations set forth by the Occupational Safety and Health Act of 1969.

<b>ELC 1200 Electronic Servicing Seminar .</b>	<b>2</b>	<b>0</b>	<b>2</b>
--	----------	----------	----------

Discussions to supplement current quarters instruction.

<b>ELC 1201 Electronic Servicing Seminar</b>	<b>2</b>	<b>0</b>	<b>2</b>
--	----------	----------	----------

Discussions to supplement current quarters instruction.

<b>ELC 1202 Electronic Servicing Seminar</b>	<b>2</b>	<b>0</b>	<b>2</b>
--	----------	----------	----------

Discussions to supplement current quarters instruction.

<b>ELC 1203 Electronic Servicing Seminar</b>	<b>2</b>	<b>0</b>	<b>2</b>
--	----------	----------	----------

Discussions to supplement current quarters instruction.

<b>ELC 1204 Electronic Servicing Seminar</b>	<b>2</b>	<b>0</b>	<b>2</b>
--	----------	----------	----------

Discussions to supplement current quarters instruction.

<b>ELC 1205 Electronic Servicing Seminar</b>	<b>2</b>	<b>0</b>	<b>2</b>
Discussions to supplement current quarters instruction.			
<b>ELC 1206 Electronic Servicing Seminar</b>	<b>2</b>	<b>0</b>	<b>2</b>
Discussions to supplement current quarters instruction.			

## **ELECTRONICS**

<b>ELN 1101 Troubleshooting Concepts</b>	<b>3</b>	<b>0</b>	<b>3</b>
A study of the techniques used in analysis of defective systems by block diagrams. Introduction to test equipment used in troubleshooting.			
<b>ELN 1102 Systems of Troubleshooting</b>	<b>2</b>	<b>3</b>	<b>3</b>
A study of troubleshooting radio and television receivers and other complete systems by block diagram analysis using audible and visual indications as the sensory device.			
<b>ELN 1103 Introduction to Control Devices</b>	<b>5</b>	<b>15</b>	<b>10</b>
Introduction to vacuum tube semiconductors used to control direct and alternating current. Applications of diodes, triodes, tetrodes, pentodes and transistors in power suppliers, voltage amplifiers, power amplifiers, oscillators and the advantage, disadvantage, and uses of each.			
<b>ELN 1104 Application of Control Devices</b>	<b>5</b>	<b>15</b>	<b>10</b>
An indepth study of vacuum tubes and semiconductor devices with characteristic curves and manufacturers data used to understand how and why a circuit configuration behaves in a predetermined manner; application and uses of the different configurations and simple design characteristics of each.			
<b>ELN 1105 Industrial Electronics and Instrumentation</b>	<b>5</b>	<b>15</b>	<b>10</b>
A 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.			
<b>ELN 1106 Maintenance and Analysis of Electronics Systems</b>	<b>5</b>	<b>15</b>	<b>10</b>
A study in the analysis and maintenance of electronic systems; included are component troubles and their effect on circuit behavior as related to electronic systems used in private entertainment and equipment used in business and industrial applications.			
<b>ELN 1107 Communications</b>	<b>3</b>	<b>0</b>	<b>3</b>
A study of the history, operating principles, and the different types of communication methods. Included topics are telephones, radio, television,			

telemetry and other types of communications used in private and industrial applications.

**ELN 1109 Television Broadcasting** 5 0 5

A study of the operation of a broadcast station. Included are job classifications and the responsibility of each position. Special emphasis is placed on the actual performance of duties and the problems involved in the several departments of a broadcast station.

**ELN 1111 Audio Visual Equipment Repair** 5 0 5

A study in the uses, operating instructions and repair of audio visual equipment; included are topics on motion picture projectors, tape recorders, slide projectors, overhead and opaque projectors and other types of audio visual equipment. The major emphasis is directed toward the servicing and repair of the different types of equipment.

**ELN 1118 Industrial Electronics** 3 6 5

Basic theory, operating characteristics, and application of vacuum tubes such as: diodes, triodes, tetrodes, pentodes, and gaseous control tubes. An introduction to amplifiers using triodes, power supplies using diodes, and other basic applications.

Prerequisite: ELC 1113.

**ELN 1119 Industrial Electronics** 3 6 5

Basic industrial electronic systems such as motor controls, alarm systems, heating systems and controls, magnetic amplifier controls, welding control systems using thyatron tubes, and other basic types of systems commonly found in most industries.

Prerequisite: ELN 1118.

**ELN 1125 Radio Receiver Servicing** 3 0 3

Principles of radio reception and practices of servicing. Included are block diagram and schematics of radio receivers, servicing techniques of a 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 20 17

Principles of television reception and practice of servicing included are block diagrams and schematics of monochrome and color television receivers, servicing techniques by resistive, voltage and image analysis, methods of locating and repairing defective states or compounds.

**ELN 1130 Small Appliance Repair** 5 0 5

A course explaining the basic operating principles and repair techniques of small home type appliances. Included topics are: electric irons, toasters, percolators, vacuum cleaners, electric mixers, blenders and other home appliances. The major emphasis is directed toward the servicing and repair of the different appliances.



## ENGLISH

**ENG 1000 Basic Communication** 10 0 10

A review of basic reading fundamentals---viz phonics, syllabication, vocabulary, word attack, sentences and paragraph interpretation and expanded reading.

**ENG 1100 Reading and Communication Skills** 5 0 5

Designed to improve the student's ability to read rapidly and accurately. Special machines are used for class drill to broaden the span of recognition, to increase eye coordination and word group recognitions and to train for comprehension in larger units. Also, designed to promote effective communication through correct language usage in speaking and writing.

**ENG 1101 Reading Improvement** 2 0 2

Designed to improve the student's ability to read rapidly and accurately. Special machines are used for class drill to broaden the span of recognition, to increase eye coordination and word group recognition and to train for comprehension in larger units.

Prerequisite: None.

**ENG 1102 Communication Skills** 3 0 3

Designed to promote effective communication through correct language usage in speaking and writing.

Prerequisite: ENG 1101.

**ENG 1103 Report Writing** 3 0 3

This course includes a brief review of English grammar, spelling, and punctuation followed by a concentrated effort in the application of the fundamentals of good writing: sentence structure, proper development of descriptive reporting, and the mechanics of report construction. Practice in writing letters and case histories will be given and some time will be devoted to oral speech and note taking.

Prerequisite: ENG 1101 or 8th grade reading ability demonstrated on placement test.

**ENG 1104 Basic Communications I** 4 0 4

This course is primarily concerned with basic oral and written expression. A thorough review of English grammar will be the primary objective. Students will also study punctuation, spelling, sentence structure, simple paragraph development, and outlining.

Prerequisite: 8th grade reading level ability demonstrated on placement test.

**ENG 1105 Basic Communications II** 4 0 4

This course is a continuing study of grammar, punctuation, and sentence structure with emphasis on writing paragraphs and short reports.

**ENG 1106 Basic Communications III** 4 0 4

Continuation of English 1105 with emphasis on oral expression as related to story



telling, oral readings, and role playing.

**ENG 1107 Reading Techniques** 3 0 3

This course should enable the teacher assistant to help children who need extra help with reading problems. A thorough review of phonics will be the primary objective of the course. Students will learn the operation and use of learning kits and reading machines.

**FARRIERING**

**FAR 1000 Farriering** 9 21 16

Instruction in the anatomy and physiology of the foot and leg is followed by extensive practice in forge, anvil, tools, welding, and metal selection techniques for trimming feet, fitting and placing the shoe. Many field trips are taken which expose the student to types of horses, handling techniques, and ways of shoeing including corrective shoeing.

**FAR 1001 Advanced Farriering** 9 21 16

Special emphasis is placed on corrective shoeing and diseases of feet and legs. Increased number of field trips are taken to provide more supervised field practice.

**FAR 1002 Farriering Clinic** 10 6 1

Conducted annually, the clinic provides for an exchange of ideas and techniques, the acquisition of new knowledge of tools and methods. Participants include farriers, Veterinarians, supplies, materials, and equipment representatives.

**MASONRY**

**MAS 1101 Bricklaying I** 5 15 10

The history of the bricklaying industry. Clay and shell brick, mortar, laying foundations, laying bricks to a line, bonding, and tools and their uses. Laboratory work will provide training in the basic manipulative skills. Prerequisite: None.

**MAS 1102 Bricklaying II** 5 15 10

Designed to give the student practice in selecting the proper mortars, layout, and construction of various building elements such as foundations, walls, chimneys, arches and cavity walls. The proper use of bonds, expansion strips, wall ties and caulking methods are stressed. Prerequisite: MAS 1101.

**MAS 1103 Bricklaying III** 5 15 10

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.

Prerequisite: MAS 1102.

**MAS 1104 Bricklaying IV** 5 15 10

Continued application of techniques acquired in MAS 1103 with emphasis on further refining the skills of a mason.

**MAS 1113 Masonry Estimating I** 3 3 4

This is a practical course in quantity "take off" from prints of the more common type jobs for bricklayers and masons. Figuring the quantities of materials needed and costs of building various components and structures.

Prerequisite: MAS 1103.

**MAS 1114 Masonry Estimating II** 3 3 4

A continuation of MAS 1113 with some emphasis being given to quantity "take off" from prints of the more complicated kind.



## MATHEMATICS

**MAT 1014 Practical Math for Nurses** 3 0 3

Review of basic mathematics: whole numbers, common fractions, decimals, percents, ratio and proportions. Also includes Roman and Arabic Numerals; temperature conversions; systems of measurements; methods of calculating dosages; and preparing solutions.

**MAT 1101 Fundamentals of Mathematics** 5 0 5

Practical number theory. The basic operations (addition, subtraction, multiplication, and division) are studied with respect to whole numbers, common fractions, and decimals. Includes a study of percents, square roots, ratios, and proportions. Practice indepth. Related word problems.

**MAT 1102 Algebra** 5 0 5

Basic concepts and operations of algebra including the following: numbers and their properties; operations with rational numbers; fundamental operations of addition, subtraction, multiplication and division; solution of linear equations in one variable; special products and factoring; algebraic fractions; solution of simultaneous linear equations; exponents and radicals; quadratic equations. Prerequisite: MAT 1101 or equivalent.

**MAT 1103 Geometry** 3 0 3

Fundamental properties and definitions; plane and solid geometric figures, geometric construction of lines, angles and plane figures. Areas of plane figures, volumes of solids. Geometric principles are applied to shop operations. Prerequisite: MAT 1102.

**MAT 1104 Trigonometry** 3 0 3

Trigonometric ratios, solving problems with right triangles, using tables, and interpolating, solution of oblique triangles using law of sines and law of cosines; all topics are applied to practical problems. Solution of trig problems with the slide rule is introduced. Prerequisite: MAT 1102.

**MAT 1107 Concepts of New Math** 4 0 4

A math course designed to familiarize the teacher assistant with the basic concepts of new math as related to the working situation. The concepts included are sets; systems of numeration; numbers; operations and properties of whole numbers; integers; rational numbers; other bases; geometry; measurements; and coordinates. Prerequisite: MAT 1101.

**MAT 1112 Building Trade Mathematics** 3 0 3

Practical problems dealing with volumes, weights, ratios, mensuration, and basic estimating practices for building materials. Prerequisite: MAT 1101.

**MAT 1115 Electrical Mathematics** 5 0 5

An introductory algebra course with trigonometry and vectors needed in alternating current; algebraic operations of addition, subtracting, multiplication, and division; use of letters and signs, grouping, factoring, exponents, ratios, and proportions; algebraic and graphic solutions of first degree equations; introduction to trigonometric functions, their graphs and applications to right triangles, addition, subtraction and resolution of vector quantities.  
Prerequisite: Mat 1101 or equivalent.

**MAT 1116 Electrical Mathematics** 5 0 5

A working knowledge of the powers of 10, Ohm's Law for series and parallel circuits, quadratic equations, Kirchhoff's Laws, trigonometric functions, plane vectors, alternating currents, vector algebra and complex numbers.  
Prerequisite: MAT 1115.

**MAT 1123 Machinist Mathematics** 3 0 3

Introduces gear ratio, lead screw and indexing problems with emphasis on applications to the machine shop. Practical applications and problems furnish the trainee with experience in geometric propositions and trigonometric relations to shop problems; concludes with an introduction to compound angle problems.  
Prerequisite: MAT 1104.

## MECHANICS

**MEC 1100A, B, C, D, E Special Projects -  
Machine Shop** 2 0 2

A supplement to any of the machine shop theory and practice courses. This course is designed to provide students with the opportunity to acquire additional practice in skills required in curriculum courses, gain skills in selected specialized areas, or develop special interest projects related to machine shop practices.  
Corequisite: Machine Shop Theory and Practice.

**MEC 1101 Machine Shop Theory and Practice** 3 12 7

An introduction to the machinist trade and the potential it holds for craftsmen. Deals primarily with the identification, care and use of basic hand tools and precision measuring instruments. Elementary lay-out procedures of lathe, drill press, grinding (off-hand) and milling machines will be introduced both in theory and practice.  
Prerequisite: None.

**MEC 1102 Machine Shop Theory and Practice** 3 12 7

Advanced operations in layout tools and procedures, power sawing, drill press, surface grinder, milling machine shaper. The student will be introduced to the basic operations of the cylindrical grinder and will select projects encompassing all the operations, tools, and procedures thus far used and those to be stressed throughout the course.



Prerequisite: MEC 1101.

**MEC 1103 Machine Shop Theory and Practice**                      3                      12                      7

Advanced work on the engine lathe turning, boring and threading machines, grinders, milling machine and shaper. Introduction to basic indexing and terminology with additional processes on calculating, cutting and measuring of spur, helical, and worm gears and wheels. The trainee will use precision tools and measuring instruments such as vernier height gauges, protractors, comparators, etc. Basic exercises will be given on the turret lathe and on the tool and cutter grinder.

Prerequisite: MEC 1102.

**MEC 1104 Machine Shop Theory and Practice**                      3                      12                      7

Development of class projects, using previously learned procedures in planning, blueprint reading, machine operations, final assembly and inspection. Additional processes on the turret lathe, tool and cutter grinder, cylindrical and surface grinder, advanced milling machine operations, etc. Special procedures and operations, processes and equipment, observing safety procedures faithfully and establishing of good work habits and attitudes acceptable to the industry.

Prerequisite: MEC 1103.

**MEC 1105 Machine Shop Theory and Practice**                      3                      15                      8

This course 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 are stressed at all times.

Prerequisite: MEC 1104.

**MEC 1106 Machine Shop Theory and Practice**                      3                      12                      7

Emphasis is placed on production methods and machines which includes set-up and operation for mass production. Instruction will be given on the turret lathe, milling machine, cylindrical grinders, and other production machines. Considerable attention also to be given to specialized equipment such as N/C machinery, electrical discharge machines, gear hob or shaper, or others as available.

Prerequisite: MEC 1105.

**MEC 1107 Jigs and Fixtures**    2                      6                      4

Develop understanding of principle and use 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 reproducing high quality parts with the use of jigs and fixtures.

**MEC 1112 Machine Shop Processes**                                      1                      3                      2

To acquaint the student with the procedures of layout work and the correct use of hand and machine tools. Experiences in the basic fundamentals of drill press and lathe operations; hand grinding of drill bits and lathe tools; set-up work applied to the trade.



<b>MEC 1113 Shop Processes</b>	<b>2</b>	<b>3</b>	<b>3</b>
Study of practices used in metal working shops; introduction to how materials can be utilized and to the processes of shaping, forming and fabricating metals. Demonstration of the metal working lathes, grinders, drills, milling machines and finishing machines, shapers, planers, saws, broaches, and gear cutting machines. A study of the capabilities of these machines.			
<b>MEC 1114 Shop Processes</b>	<b>0</b>	<b>3</b>	<b>1</b>
Comparison of the unit-production and mass-production systems. Casting, forging and allied processes, welding and sheet metal working processes are demonstrated and discussed. Mass-production methods are studied in relationship to precision dimensional control. Prerequisite: MEC 1113.			
<b>MEC 1115 Metallurgy - Ferrous Metals</b>	<b>2</b>	<b>3</b>	<b>3</b>
Investigates the properties of ferrous metals and tests to determine their uses. Instructions will include some chemical metallurgy to provide a background for the understanding of the physical changes and cause of these changes in metals. Physical metallurgy of ferrous metals, producing iron and steel, theory of alloys, shaping and forming, heat treatments for steel, surface treatments, alloy of special steel, classification of steels, and cast iron will be the topics for study.			
<b>MET 1116 Metallurgy - Non-Ferrous Metals</b>	<b>2</b>	<b>3</b>	<b>3</b>
Continuation of the study of physical metallurgy. The non-ferrous metals: bearing metals (brass, bronze, lead), light metals (aluminum and magnesium) and copper and its alloys are studied. Powder metallurgy, titanium, zirconium, indium and vanadium are included in this course. Prerequisite: MEC 1115.			
<b>MEC 1147 Systems of Measurement and Measuring Tools</b>	<b>2</b>	<b>0</b>	<b>2</b>
A basic 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.			
<b>Mec 1221 Machine Maintenance</b>	<b>2</b>	<b>3</b>	<b>3</b>
To instruct the student in the fundamentals of repairing machine tools and related equipment or accessories. Emphasis to be on manufacture of replacement parts, alignment or adjustment of pulleys, gears, gibs, and clutches; and modification or restoration of older equipment.			
<b>MEC 1298A Special Problems in Auto Mechanics</b>	<b>0</b>	<b>3</b>	<b>1</b>
A supplement to any of the Auto Mechanics courses. This course is designed to provide students with the opportunity to acquire additional practice in skills required in curriculum courses, gain skills in selected specialized areas, or develop special interest projects related to auto mechanics.			

**MEC 1298B Special Problems in Auto Mechanics    3                    3                    4**

A supplement to any of the Auto Mechanics courses. This course is designed to provide students with the opportunity to acquire additional practice in skills required in curriculum courses, gain skills in selected specialized areas, or develop special interest projects related to auto mechanics.

**MEC 1298C Special Problems in Auto Mechanics    0                    3                    1**

A supplement to any of the Auto Mechanics courses. This course is designed to provide students with the opportunity to acquire additional practice in skills required in curriculum courses, gain skills in selected specialized areas, or develop special interest projects related to auto mechanics.

**MEC 1299A Special Problems in Auto Mechanics    2                    3                    3**

A supplement to any of the Auto Mechanics courses. This course is designed to provide students with the opportunity to acquire additional practice in skills required in curriculum courses, gain skills in selected specialized areas, or develop special interest projects related to auto mechanics.

**MEC 1299B Special Problems in Auto Mechanics    2                    0                    2**

A supplement to any of the auto mechanics courses. This course is designed to provide students with the opportunity to acquire additional practice in skills required in curriculum courses, gain skills in selected specialized areas, or develop special interest projects related to auto mechanics.

**MEC 1425 Statics & Strengths of Materials            3                    2                    4**

An elementary study of systems of forces acting on bodies, machines, and structures at rest. Study of stresses and deformation which occur within machine and structural elements subjected to various types of loads. Topics covered include moments, equilibrium, stress, strain, shear and moment of inertia.

Prerequisites: MAT 1101, MAT 1102, MAT 1104, PHY 1102.

**NURSING**

**PNE 1010 Fundamentals of Practical Nursing        6                    6                    0                    9**

Introduces the student to nursing, to the patient and his environment. Orientation to the fundamental principles that guide nursing action. Presentation of the general needs of patients such as comfort, safety, hygiene, nutrition, and activity. Body mechanics and rehabilitation are stressed. Principles of microbiology. Medical and surgical asepsis. Nursing care plans, recording. Specific observation skills. Heat and cold as therapeutic agents.

**PNE 1011 Anatomy and Physiology                    4                    0                    0                    4**

A study of the body as an integrated whole and of the individual body systems; skeletal, muscular, nervous, sense organs, circulatory, respiratory, digestive, urinary, reproductive and endocrine. Presentation of the normal body as a basis for understanding variations from normal.

<b>PNE 1012 Vocational Adjustment</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
Philosophy and objectives of practical nursing. Nursing ethics. History of practical nursing. The practical nurse as part of the nursing team. The agencies in which nursing is practiced. Individual and community health. Problem solving. Learning how to learn. Religious and racial aspects. Practical nursing organizations.				
<b>PNE 1013 Basic Nutrition</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
The science of normal nutrition. Essential nutrients and physiological processes of digestion, absorption, and metabolism. Basic four food groups. Study of vitamins and available sources. Diet planning for all age groups in accordance with socio-economic status, religious, cultural and psychological needs.				
<b>PNE 1015 Special Problems in Nursing</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>
Group interactions and intergroup communications are stressed. Students are helped to better understand how patients feel and react and how he (the student) will react to certain situations. Field trips to the hospital and other agencies shall constitute the remainder of the course.				
<b>PNE 1016 Special Problems in Nursing</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>2</b>
Adapted to meet the special problems of individual students, this course is a program of guided activities in the library, learning center or nursing laboratory to improve or enhance the student's nursing skills and knowledge.				
<b>PNE 1020 Medical-Surgical Nursing I</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>5</b>
Introduction of the student to the concept of understanding illness and disease as a deviation from the normal. Classification of diseases. Nursing care of the patient with respiratory and cardiovascular systems injury, cancer, and disorders. Diagnostic tests. Anesthetic agents. Preoperative and post operative care. Nursing care of the aged and patients with prolonged illnesses. Diseases of the blood and blood forming organs.				
<b>PNE 1021 Drugs and Drug Administration</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
An introduction to drugs and their safe administration by the practical nurse student. Knowledge of drug sources, preparation, action, and ill effects of misuse of drugs. Review of arithmetic. Systems for measuring drugs, conversion problems within systems and from system to system. How drugs are prescribed. Methods of administration.				
<b>PNE 1022 Human Relations</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
A study of basic principles of human behavior. Methods of communication. The practical nurse student's understanding of herself and her patients. The Nurse-Patient relationship.				
<b>PNE 1023 Clinical Experience</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>7</b>
Beginning experience in the general hospital under the supervision of nursing faculty. Application of theoretical knowledge in the practical situation. Patient assignment allows time for planning nursing care, recording, and reporting.				

Attending to all needs of the adult patient, stress is placed on hygiene and rehabilitation early. Opportunities to develop concepts of patients as individuals and of the practical nurse student's role as a team member. Experience in simple bedside nursing techniques.

**PNE 1024 Nursing Studies Lab** 0 3 0 1

Student individual and group study. Time may be spent in the library, the learning lab, or the classroom.

**PNE 1030 Medical-Surgical Nursing II** 10 0 0 10

Nursing care for patients having specific medical and surgical treatment. Includes disorders of the digestive, urinary, reproductive, nervous and endocrine systems. Also includes a study of diseases of the eye, ear, nose and throat. Special diagnostic tests and drug therapy correlated with each disorder. Emergency and disaster nursing. Diseases and disorders of the skin. Allergic conditions. Disorders of the musculo-skeletal system and the care of patients with communicable diseases.

**PNE 1031 Clinical Experience** 0 0 21 7

Continued experience in the care of selected adult patients with specific medical and surgical treatments. Inhalation therapy, administration of oral medications and more complicated nursing treatments. Emphasis on observational skills and increasing awareness of the practical nurse's contribution to total patient care as a participating team member. Contributes to nursing care plan and team conference.

**PNE 1032 Nursing Studies Lab** 0 3 0 1

Student individual and group study. Time may be spent in the library, the learning lab, or the classroom.

**PNE 1040 Personal and Vocational Relations** 2 0 0 2

An advanced study of nursing ethics. Career opportunities in practical nursing. Job descriptions. Organizations for the graduate practical nurse. Employment practices. Continuing education. Legal aspects of practical nursing. State Board Examinations. North Carolina Nursing Law.

**PNE 1041 Maternity Nursing** 3 0 0 3

Modern aspects of maternity care. Understanding of fundamental physiology of human reproduction. Thorough presentation of prenatal, labor and delivery and postnatal care. Emphasis is on normal pregnancy and delivery. Complications affecting the normal processes presented.

**PNE 1042 Nursing of Children** 3 0 0 3

Understanding the scope and aims of pediatric nursing (the nursing of children). Understanding the child and his needs in relation to his disease and his growth and development. Normal growth and development versus abnormal growth and development. Methods of meeting the needs of the hospitalized child and his parents. Common disorders of childhood and nursing care and procedures involved.



<b>PNE 1043 Clinical Experience</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>7</b>
-------------------------------------	----------	----------	-----------	----------

Experiences in nursing the mother and newborn child, and in the nursing of all age groups. Concepts previously learned in earlier quarters continued; medical-surgical asepsis, isolation technique. Communication methods. Practice in giving injections under direct supervision of nursing faculty.

## OPERATING ROOM TECHNICIAN

<b>SUR 1101 Principles of Operating Room Technique</b>	<b>4</b>	<b>3</b>	<b>5</b>
--	----------	----------	----------

Introduction to the method of the preoperative surgical hand scrub and historical development of the surgical scrub; gowning and gloving; aseptic technique and the development of a "sterile conscience"; types of drapes, proper handling of drapes, and the importance of proper draping; care of specimens; various types, sizes, and uses of sutures; different types, parts, and uses of needles used for suturing tissue; types of gauze and pads used for sponging and dressings; types and uses of drains; types of basic instruments; classifications, uses, manufacture, and care of instruments; introduction to the specific responsibilities of the circulating and scrubbed personnel in routine and special procedures.

<b>SUR 1102 Anatomy and Physiology</b>	<b>11</b>	<b>2</b>	<b>12</b>
--	-----------	----------	-----------

A study of the basic anatomical structures and the principles of physiology. Identification of the anatomical positions and planes of the body. Presentation of the nine body systems and their inter-relationships.

<b>SUR 1103 Introductions to Microbiology</b>	<b>1</b>	<b>0</b>	<b>1</b>
---	----------	----------	----------

Presentation of the basic principles of microbiology to aid the student in understanding the relationship of microorganisms with the maintenance of health and the cause, control, and prevention of disease.

<b>SUR 1104 Surgical Procedures</b>	<b>9</b>	<b>0</b>	<b>9</b>
-------------------------------------	----------	----------	----------

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 all surgical procedures including instruments (general surgery, general abdominal, gynecology, obstetrical, thoracic, genitourinary, orthopedic, eye, ear, nose, throat, plastic, neurosurgery, and cardiovascular). Pediatric and geriatric surgery. Diagnostic procedures; Radiation therapy; Plaster casts; Treatment of burns; Special instruments and equipment.

<b>SUR 1105 Clinical Practice</b>	<b>0</b>	<b>30</b>	<b>10</b>
-----------------------------------	----------	-----------	-----------

Continued experience in duties of circulating and scrubbed technician, sterile setup and work room, delivery room, recovery room, and emergency room.

<b>SUR 1106 Introduction and Orientation</b>	<b>2</b>	<b>0</b>	<b>2</b>
--	----------	----------	----------

To present the purpose of the program, of what it will consist and just what his function will be. To develop an appreciation of the operating room services and



their relationship to the patient's restoration of health and his ultimate return to the community. To recognize the importance of the physical plan of the operating room. Importance of harmonious relationship intradepartmental and interdepartmental. The necessity of practicing good ethical principles. The scientific development of surgery, medical terminology, symbols, units of weights and measures, and fundamentals of fluids and electrolyte balance.

**SUR 1107 Care and Safety of the Patient**                     2                     3                     3  
    **During Surgery**

To demonstrate the awareness of the total needs of the patient-physical, social, psychological and spiritual--significance of preoperative preparations; presentation of the various modes of transportation of the patient to the operating room and the appropriate use of each mode; presentation of the responsibilities involved in relation to the patient receiving anesthesia. Identification of the anatomical principles involved in proper surgical positioning; identification and manipulation of the operating table.

**SUR 1108 Clinical Practice**                                     0                     12                     4

Beginning experience in the operating room under the supervision of the instructor. Applying theory and clinical together. Experience regarding duties of circulating technician and limited scrubbing experience. Transportation of the patient to surgery.

**SUR 1109 Coordinated Hospital Activities**                     1                     0                     1

Introduction to vital signs. Respiratory maintenance. Care of the skin. Drainage tubes and catheters. Intravenous therapy. Tracheostomy care. Fundamentals of bedmaking. Postoperative care. Urethral catheterization. Skin and skeletal traction. Emergency room care. Delivery of the newborn infant.

## **PHYSICAL EDUCATION**

**PED 1102 Creative Activities**                                     3                     0                     3

Emphasis is placed on dramatization, music, art activities, and physical education activities as they relate to the overall development of the child. The individual child's creativity will be stressed in all areas.

## **PHYSICS**

**PHY 1101 Applied Science**                                     3                     2                     4

An 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.

Corequisite: MAT 1101.

**PHY 1102 Applied Science** 3 2 4

A continuation of PHY 1101. Typical topics include forces and torques with basic graphical solutions, motion, temperature and expansion, additional heat concepts, and specialized topics for the various curricula.

Prerequisites: PHY 1101 and MAT 1101.

**PHY 1103 Principles of Electricity** 3 2 4

A study of the electron theory, Ohm's Law, series and parallel circuits, AC and DC current, magnetism, and batteries. The above concepts are applied to the automobile ignition system throughout the course.

Corequisite: MAT 1101.

## **POWER MECHANICS**

**PME 1101 Internal Combustion Engine** 5 12 9

Development of a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Study of the construction and operation of components of internal combustion engines. Testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, cooling systems; proper lubrication; and methods of testing, diagnosing, and repairing.

**PME 1102 Electrical Systems** 5 9 8

The electrical systems covered in this course are the ignition, cranking, charging, lights and accessories systems. Through films, lectures, and demonstrations the student will be taught the theory and operation of these various systems. The laboratory will be used to demonstrate various test equipment and electrical checks. The student will spend much of his lab time learning to use various pieces of auto electrical test equipment.

**PME 1104 Fuel Systems** 3 6 5

This course is designed to give the student a solid background in the theory and operation of carburetors, fuel pumps, and the newer emission control devices. Through lectures, demonstrations, films, and transparencies, the student will gain a working knowledge of the automobile fuel system. Practical application of the knowledge will be used during the laboratory training periods when the student will disassemble various carburetors, perform tests and adjust to specifications. All test equipment will be demonstrated to and used by the student.

**PME 1123 Brakes, Chassis and Suspension** 3 9 6

A complete study of various braking systems employed on automobiles and light weight trucks. Emphasis is placed on how they operate, proper adjustment and repair. Also the servicing of power brakes is emphasized. Principles and function of the components of automotive chassis. Practical job instruction in adjusting and repairing of suspension systems.

Prerequisite: None.

**PME 1124 Power Trains** 3 12 7

A comprehensive study of the principles and functions of the automotive power train. This course includes study of the clutch, conventional transmission, drive shaft and the rear axle assembly. Identification of troubles, servicing problems, and repair of the power train system will be covered.

**PME 1125 Auto Servicing** 3 9 6

Emphasis is on the shop procedures necessary in trouble shooting the various component systems of the automobile. Trouble shooting of automotive systems provides a full range of experiences in testing, adjusting, repairing and replacing components. A close simulation to an actual automotive shop situation will be maintained.

Prerequisites: PME 1102, AUT 1123, AHR 1101.

**PME 1184 Practicum** 0 39 13

The student will spend time in shop experiences under the supervision of a qualified shop foreman. Emphasis will be on the application of automotive servicing concepts and principles related to course content.

**PME 1202 Electricity/Electronics** 3 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 Auto Emission Control Devices** 3 6 5

This course will cover indepth the operation of the P.C.U. System, exhaust emission control systems, evaporative emission control systems, scheduled maintenance operations. Also the use of all test equipment involved in diagnosing emission control problems will be used by the student.

**PME 1224 Automatic Transmission** 3 9 6

This course is designed to provide a measure of depth in the understanding of automatic transmissions. Instruction includes classroom study, demonstrations, and student participation in disassembly, reassembly, and testing of selected transmissions. Special emphasis is placed on principles, functions, construction, operation, servicing and trouble shooting procedures and repair of various types of automatic transmission.

Prerequisite: PME 1124.

**PME 1226 Advanced Auto Servicing** 2 6 4

Emphasis on trouble shooting and repairing the various component systems of the automobile, providing an extra range (beyond that of PME 1225) of testing, adjusting, repairing, and replacing experiences.

**PME 1227 Power Accessories** 2 6 4

This course is designed to acquaint the student with the operation, service, and

repair of power operated seats, windows, tops, windshield wipers, radio antennas, etc. It should insure the development of the student's ability to understand and trace out the circuits of the electrical accessories, to enhance his skill in diagnosing troubles and repairing damaged circuits. He will apply his knowledge in drawing and reading schematic diagrams of electrical circuits.

**PSYCHOLOGY**

**PSY 1101 Human Relations** 3            0            3

A study of basic principles of human behavior. The problems of the individual are studied in relation to society, group membership, and relationships within the work situation.

Prerequisite: None.

**PSY 1102 Child Development** 3            0            3

This course is essential to the assistant who will be working with children. The child's body, mind, emotions, and sense of self will be emphasized. Importance is also placed on understanding the culturally deprived child, motivation, and behavior modification to create a better learning situation.

**PSY 1103 Child Development** 3            0            3

Continuation of PSY 1102 with emphasis on primary and elementary age children.

Prerequisite: PSY 1102.

**SOCIOLOGY**

**SOC 1101 Introduction to Sociology** 3            0            3

A study of society as it relates to culture, socialization, social status, family, and community resources. Emphasis will be placed on the child as a participant in group life.

**TEACHER ASSISTANT**

**TAI 1101 Visual Aids Techniques** 5            0            5

This course will enable the student to acquire the skills necessary to operate audio-visual and duplicating equipment. Emphasis will be placed on stencil preparation, laminating, mounting, lettering, chart writing, and making other teaching materials.

**TAI 1105 Library Techniques** 3            0            3

A course to instruct students on shelving, the use of the card catalog, vertical files, magazines, periodicals, and research procedures. Emphasis will be placed



on elementary and school libraries.

**TAI 1106 Teacher Assistant Internship**                                  0                                  20                                  5

This course should serve to introduce both the assistant and the teacher to the teacher assistant program in operation. Each participant will be placed in a school and work under the direction of county, city, or federal officials responsible for aide programs.

Prerequisite: Successful completion of one quarter's work (2.0 average) or instructor's permission.

**TAI 1107 Teacher Assistant Internship**                                  0                                  20                                  5

Continuation of TAI 1106.

Prerequisite: Successful completion of one quarter's work (2.0 average) or instructor's permission.

## **WELDING**

**WLD 1101 Basic Gas Welding**                                  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 1102 Basic Gas Welding**                                  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.

Prerequisite: None.

**WLD 1129 Basic Gas Welding**                                  2                                  3                                  3

The various processes used for joining materials by welding are discussed. Lecture, demonstrations and practice cover the oxyacetylene and arc welding processes, filler metals used, gases, currents weldability of metals. Instruction is given in the set up and safe operation of oxyacetylene and arc welding apparatus. Students prepare joints by both hand and machine cutting with the oxyacetylene torch.

## **COOPERATIVE EDUCATION**

### **INTRODUCTION**

#### **Purpose of Curriculum**

The purpose of the program is to integrate classroom theory and lab and shop practice with practical experience under which students have specific periods of attendance at the school and specific periods of employment related to



his field of study. This balance of work and study is intended to produce a more qualified graduate in his chosen field.

### **Job Description**

Cooperative education is based on the philosophy that practical work experience integrated with theoretical classroom experience is a meaningful and valuable educational process. The alternation of classroom and laboratory exercises with supervised employment in the student's chosen occupation field enhances learning and vocational adaption and enables the student to become better acquainted with both theory and practice. Such work experience demonstrates the relevance of classroom work to his vocational goal and enables him to have a better perspective about formal training and its relation to occupational endeavors.

## **GUIDELINES FOR THE COOPERATIVE EDUCATION PROGRAM**

### **PITT TECHNICAL INSTITUTE**

#### **DESIGN OF THE PROGRAM**

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 part-time and attending school part time.

#### **ELIGIBILITY**

All full time students who have completed one quarter (12 credit hours) are eligible to enter the Cooperative Education Program provided that meet the following requirements:

- A. Students should have a 2.0 GPA, be in good standing, and/or have permission from the Department Chairman and Cooperative Education Director.
- B. Students must plan to graduate from Pitt Technical Institute.
- C. Students must intend to remain in the Cooperative Education Program until graduation from Pitt Technical Institute or until the maximum credit hours allowed are earned.

## WHEN TO APPLY

Students may apply as soon as they have been accepted for full time enrollment by the school, even though they will not receive a work assignment until after they have completed one quarter of school.

## APPLICATION PROCEDURE

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

- A. Obtain an "Application for Cooperative Education Program" form from their Cooperative Education Department Office, and make an appointment with the Cooperative Education Office to review the completed application with the Coordinator.
- B. The Coordinator will conduct an indepth interview with the student with regard to his career and possible cooperative assignments.
- C. If the student is accepted, the Cooperative Education Department with the assistance of the Department Chairman, will be responsible for 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 assignments of ten hours per week. The Cooperative Education Department will grade the assignments based on reports submitted by the student and the evaluation made by the employer. Reports of credit will be made to the Registrar's office by the Cooperative Education Department.
- B. Students can earn up to eight (8) hours credit. If the classroom course is taken, a total of eleven (11) hours credit is possible.
- C. Credits earned may be used as add on or substitute. This is to be determined by the Department Chairman, Director of Faculty, and the student.

### **COE 100 The Student, His Career, and Society            3            0            3**

An introduction and orientation to experimental education and to broader participation in society. Attention is given to responsibilities and opportunities associated with career improvement and to preparation for employment in business, industrial, and professional community. Application of classroom theory to the actual work situation is emphasized. A general education course designed to help students in vocational, technical, and college transfer programs make the transition from the campus to the world of work.

**COE 101 Cooperative Education Internship**

**(Variable Credit Hours 1-4)**

<b>0</b>	<b>10</b>	<b>1</b>
<b>0</b>	<b>20</b>	<b>2</b>
<b>0</b>	<b>30</b>	<b>3</b>
<b>0</b>	<b>40</b>	<b>4</b>

Through the Cooperative Education Program, the student works in a position related to his program of study or career interest and for an employer selected and/or approved by the Institution. The student is supervised periodically by a faculty member or cooperative supervisor from the Institution. Normal credit hours for the field work part of a cooperative program are determined by dividing the average number of hours worked per week, during a regular eleven week quarter by 10 and rounding to the nearest whole number. A student may receive a maximum of four credit hours during any one quarter and a maximum of eight credit hours toward degree or diploma requirements.

Prerequisite: One quarter as a full time student at Pitt Technical Institute or permission from the Cooperative Education Director.



***CERTIFICATE  
PROGRAMS***

## COSMETOLOGY

### INTRODUCTION

#### Purpose of Curriculum

Today the cosmetologist is called upon to advise men and women on problems of make-up, diet, and care of the hair, skin and hands, including the nails. Cosmetology has become a science consisting of the use of cosmetics based on scientific principles. The Cosmetology Curriculum is designed to prepare the student for employment in the field of cosmetology. The curriculum is designed to prepare the student for employment in the field of cosmetology. The curriculum provides instruction and practice in manicuring, shampooing, permanent waving, facials, massages, scalp treatments, hair cutting and styling. This curriculum is approved by the North Carolina State Board of Cosmetic Art Examiners.

The 1200 hour cosmetology program prepares prospective beauty operators for the North Carolina licensing examination. Classes operate on an eight hour per day schedule providing actual experience in such customer services as shampooing, care of the skin, massaging, and all other phases of cosmetology.

Students may continue for additional hours of study in Advanced Hair Styling. Completion of the option qualifies the graduate for examination and licensing on the 1500 hour program required in some states.

#### Job Description

A trained beautician is in constant demand. She can find employment in the many beauty shops found in every community. A cosmetologist performs many functions in providing beauty service for customers. Some of the functions are manicuring, shampooing, permanent waving, facials, scalp treatments, hair styling, bleaching, and other services demanded of a beautician.

## COSMETOLOGY

### SUGGESTED CURRICULUM BY CONTACT HOURS

A total of 1200 hours of training is required for graduation. Training consists of basic hair styling, advanced styling techniques, wig styling, permanent waving, coloring, facial and scalp treatments. Categorizing these subjects, the following is an hourly breakdown:

Scientific Study	Hours
1. Law, as it pertains to practice of cosmetic art in North Carolina, ethics, economics, shop management and history of beauty culture.	55
2. Sanitation, sterilization, personal hygiene, first aid	35
3. Bacteriology	20
4. Anatomy	75
5. Digestion	15
6. Skin, scalp, hair, nails and their common disorders	50



7. Electricity, as applied to the practice of cosmetic art	30
8. Chemistry as necessary to the practice of cosmetic art	<u>20</u>
TOTAL	300

#### DEMONSTRATIONS AND LECTURES ON SCIENTIFIC STUDY

1. Law, as is pertains to practice of cosmetic art in North Carolina ethics, economics, shop management and history of beauty culture.	10
2. Sanitation, sterilization, personal hygiene	10
3. Bacteriology	10
4. Anatomy	10
5. Digestion	5
6. Skin, scalp, hair, nails, and their common disorders	10
7. Electricity, as applied to the practice of cosmetic art	10
8. Chemistry as necessary to the practice of cosmetic art	10
9. Finance and equipment	<u>10</u>
TOTAL	115

#### SUPERVISED PRACTICE

1. Scalp Treatments	25
2. Shampooing and rinsing	10
3. Hair dyeing and bleaching	70
4. Hair dressing and styling	100
5. Finger waving and comb waving	37
6. Croquinole waving, round curling, paper curling	50
7. Permanent waving	225
8. Facials, massage, packs, eyebrow arching	50
9. Manicuring and arm moulding	<u>20</u>
TOTAL	587

#### ILLUSTRATED LECTURES ON PRACTICAL WORK

1. Scalp treatments	7
2. Shampooing and rinsing	5
3. Hair dyeing and bleaching	30
4. Hair dressing	30
5. Finger waving and pin curling	25
6. Croquinole waving, round and paper curling	16
7. Permanent waving	50
8. Facials, massage, packs, eyebrow arching	10
9. Manicuring and arm moulding	10
10. Cosmetics	<u>5</u>
TOTAL	188

Hours assigned.....	1190
Safety measures.....	10
TOTAL.....	1200

## FARRIERING

### ONE QUARTER OR THREE MONTHS

Farriering deals with the anatomy and physiology of a horse's foot, pastern and legs. The foot and leg is studied as it relates to the entire body. Areas of study also include the lines of flight of hoofs, the growth of the hoof, and the wear of the hoof and shoe. Special emphasis is given to corrective shoeing and to the elimination of common errors in shoeing.

The major portion of the student's time is spent in the laboratory actually working with forge tools. He performs such tasks as trimming feet, shaping and fitting shoes, making shoes from bar iron; in effect he performs all the tasks necessary in the art of farriering.

The student should buy his own tools or he may use tools furnished by the Institute. The Institute can assist students in obtaining tools at a reasonable price.

	Course Title	C	L	CH
FIRST QUARTER				
Far 1000	Farriering	6	21	16

## MASONRY

### INTRODUCTION

#### Purpose of Curriculum

Masons are the craftsmen in the building trades that work with artificial stone, brick, concrete masonry units, stone and the like. During the past decade there has been a steady increase in the demand for these craftsmen. As building construction continues to increase, the demand for bricklayers, cement masons, and stone masons will also increase.

This curriculum in masonry is designed to train the individual to enter the trade with the knowledge and basic skills that will enable him to perform effectively. He must have a knowledge of basic mathematics, blueprint reading and masonry technology. He must 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 may be found 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 work.

### Job Description

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, he constructs or repairs walls, partitions, arches, sewers, furnaces and other masonry structures.

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

## MASONRY

### SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
FIRST QUARTER				
MAS 1101	Bricklaying I	5	15	10
MAT 1101	Fundamentals of Mathematics	5	0	5
DFT 1110	Blueprint Reading: Building Trades	<u>0</u>	<u>3</u>	<u>1</u>
		10	18	16
SECOND QUARTER				
MAS 1102	Bricklaying II	5	15	10
MAT 1112	Building Trades Mathematics	3	0	3
DFT 1111	Blueprint Reading & Sketching I	<u>0</u>	<u>3</u>	<u>1</u>
		8	18	14

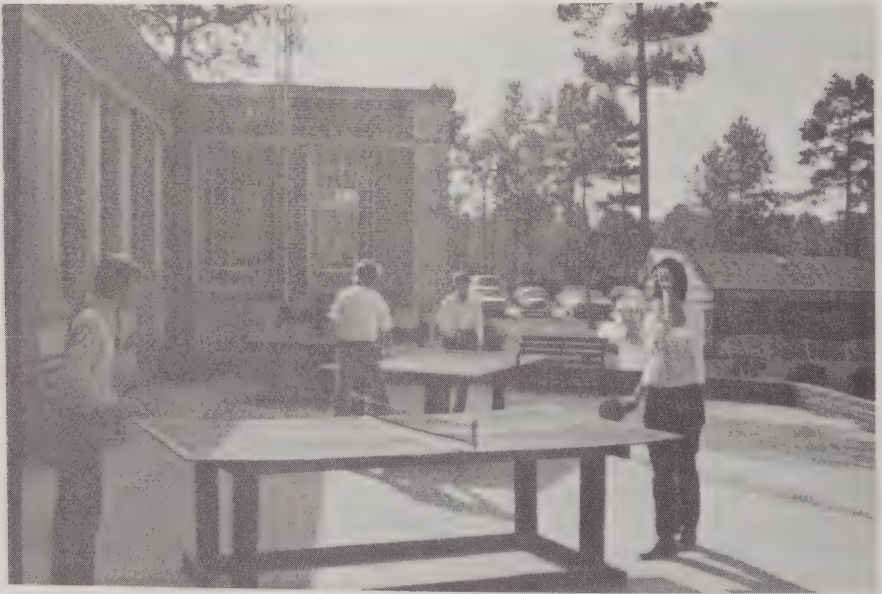
THIRD QUARTER

MAS 1103	Bricklaying III	5	15	10
MAS 1113	Masonry Estimating I	3	3	4
DFT 1112	Blueprint Reading & Sketching II	<u>0</u>	<u>3</u>	<u>1</u>
		8	21	15

FOURTH QUARTER

MAS 1104	Bricklaying IV	5	15	10
MAS 1114	Masonry Estimating II	3	3	4
DFT 1113	Blueprint Reading & Sketching III	<u>0</u>	<u>3</u>	<u>1</u>
		8	21	15

TOTAL QUARTER HOURS IN COURSES 60



## OPERATING ROOM TECHNICIAN

### INTRODUCTION

#### Purpose of Curriculum

The Operating Room Technician Program consists of six months. The student will acquire knowledge in areas of anatomy, physiology, microbiology, principles of asepsis, and preparation of the operating room for surgery. Graduates of the program are eligible to write the certifying examination given by the Association of Operating Room Technicians. Passing the certifying examination entitles the graduate to use the title, "Certified Operating Room Technician."

The operating room staff renders an important service in the overall care of a patient. Good organization of the department and surgical teams is required and each individual must know his specific functions and responsibilities in order to correlate them with the duties of others.

The primary objective of the program is to prepare the graduate to perform all the functions of an operating room technician so as to provide the best service possible as a member of the surgical team in the care of each patient





who comes to the operating room.

### Job Description

The operating room technician is an individual who has received specified basic education and training to qualify this individual to function in specifically delineated areas of patient care in the operating room.

The operating room technician works under direct supervision of a registered professional nurse and/or licensed physician.

## OPERATING ROOM TECHNICIAN

### SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
SUR 1106	Introduction and Orientation	2	0	2
SUR 1102	Anatomy and Physiology	11	2	12
SUR 1103	Introduction to Microbiology	1	0	1
SUR 1107	Care and Safety of Patient During Surgery	2	3	3
SUR 1101	Principles of Operating Room Technique	4	3	5
SUR 1108	Clinical Practice	<u>0</u>	<u>12</u>	<u>4</u>
		20	20	27
<b>SECOND QUARTER</b>				
SUR 1104	Surgical Procedures	9	0	9
SUR 1105	Clinical Practice	0	30	10
SUR 1109	Coordinated Hospital Activities	<u>1</u>	<u>0</u>	<u>1</u>
		10	30	20
<b>TOTAL QUARTER HOURS IN COURSES</b>		<b>47</b>		

# SURVEYING

## TECHNICAL SPECIALTY

### INTRODUCTION

#### Purpose of Curriculum

The Surveying (Technical Specialty) Curriculum is designed for the person interested in upgrading his skills to assist surveyors or engineers in land, forest, highway, marine and other types of surveying. The program may be adapted in emphasis by choice of electives and instructors. The institution may vary the length of the program to meet local needs. While operating the curriculum on a part time basis for four quarters seems most popular, other schedules may be more desirable for some areas. A certificate is awarded to students completing the program.

#### Job Description

The graduate of this program may engage in determining 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. He may calculate information needed to conduct surveys from notes, maps, deeds, or other records. He will use surveying instruments and perform calculations to verify the accuracy of survey data.



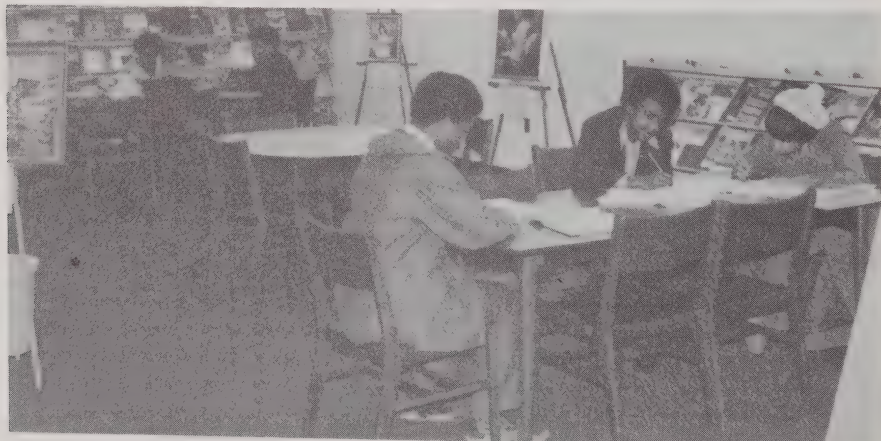
**SURVEYING**  
**TECHNICAL SPECIALTY**  
**SUGGESTED CURRICULUM**

	Course Title	C	L	CH
<b>BASIC COURSES</b>				
CIV 101	Surveying	2	6	4
MAT 101	Technical Mathematics	5	0	5
CIV 102	Surveying	2	6	4
DFT 101	Technical Drafting	0	6	2
CIV 103	Surveying	2	6	4
MAT 102	Technical Mathematics	5	0	5
CIV 204	Surveying	2	6	4

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

**ELECTIVE COURSES**

CIV 110	Surveyor Practices	1	0	1
MAT 204	Technical Calculations	2	2	3
FOR 208	Forest Surveying	2	3	3
CIV 223	Codes, Contracts, & Specifications	2	0	2



***CONTINUING  
EDUCATION***

## **EXTENSION AND EVENING PROGRAMS**

General Information  
Certificate Programs  
Occupational Extension  
Management Development Programs  
Law Enforcement Training  
Hospitality Training  
Special Industrial Programs  
General Adult Education  
The Learning Center

### **ADULT EDUCATION**

#### **General Information**

Pitt Technical Institute will provide any day or night class or training that is desired or needed by individuals, industries, businesses, civic groups, churches, and community groups, if within the purposes and policies of the Institute. Assistance is constantly requested from the public to identify training needs for programs that Pitt Technical Institute can provide.

Courses may be conducted mornings, afternoons or evenings. Classes may meet once, twice or daily each week. On campus facilities and off-campus facilities such as public schools, community buildings, churches, civic centers, industrial plants, fire stations, etc. are utilized. Many of the courses listed in this publication may be taught or are already being taught in facilities in your local community. For information about courses that could be taught or are being taught in your community, contact the Pitt Tech Extension Division.

Each course is open to any adult who thinks he can do the required work and has a need for such training. A minimum of ten persons is usually necessary to begin a course.

Pitt Technical Institute has an Adult Education Center located at 112 East Wilson Street, Farmville, N.C. A Learning Center (individualized instruction), Adult Basic, General Adult and Occupational programs are available.

Interested persons are requested to make application by visit, mail or telephone 756-3130 extension 38, Greenville, N.C. or 753-5747, Farmville, N.C.

### **EVENING CERTIFICATE PROGRAMS**

The following programs are conducted at night for adults who wish to earn evening certificates. The programs are designed to be completed within four to eight quarters. Certificates will be issued only upon completion of the courses



required in a particular program. Students may enter a program at the beginning of any quarter. The certificate programs do not prohibit any student from taking individual courses for personal improvement. Each certificate program and individual course is open to those persons who feel that they can do the work required and who have a need for such training.

Courses within each program may be transferred for credit to the day certificate, diploma or degree programs if the students have met the admission requirements stated in the general catalogue. For further information concerning the transfer of credit, students should contact the Director of Student Personnel. Each course is subject to evaluation by the chairman of a particular department.

### ARCHITECTURAL DRAFTING CERTIFICATE—EVENING PROGRAM

	Course Title	C	L	CH
FIRST QUARTER				
ARC 106A	Architectural Drafting I	2	4	3
SECOND QUARTER				
ARC 107A	Architectural Drafting II	2	4	3
THIRD QUARTER				
ARC 108A	Architectural Drafting III	2	4	3
FOURTH QUARTER				
ARC 108A	Architectural Drafting IV	2	4	3
FIFTH QUARTER				
ARC 221A	Architectural Drafting V	2	4	3
SIXTH QUARTER				
ARC 222A	Architectural Drafting VI	2	4	3

## Architectural Drafting Certificate—Evening Program

### FIRST QUARTER

**ARC 106A Architectural Drafting I**                         **2**                 **4**                 **3**

A course designed to provide fundamental knowledge of the principles of drafting. Basic skills and techniques of drafting included are: use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric construction, orthographic instrument drawing of principal views. Projection problems dealing with principles of descriptive geometry, involving points, lines, planes, and connectors. The principles of isometric, oblique, and perspective drawings are introduced. Materials used in the construction of architectural structures will be studied. Manufacturer's specifications for materials, properties and standard sizes of structural materials, and construction techniques are included.

### SECOND QUARTER

**ARCH 107A Architectural Drafting II**                         **2**                 **4**                 **3**

Development of techniques of architectural lettering, symbols, and their interpretations; dimensioning, freehand and instrument drafting. Drawing of construction details, sections, scale details and fullsize details will be prepared from preliminary sketches.

### THIRD QUARTER

**ARC 108A Architectural Drafting III**                         **2**                 **4**                 **3**

An approach in depth to the study of architectural drafting. Drawing of construction of details, using appropriate material symbols and conventions. A complete set of working drawings, including plans, elevations, sections, scale details and full-size details will be prepared from preliminary sketches. This course is a continuation of DFT 1132.

### FOURTH QUARTER

**ARC 220A Architectural Drafting IV**                         **2**                 **4**                 **3**

Drawing of plans and details as prepared for building construction including

steel, concrete, and timber structural components. Reference materials will be used to provide the draftsman with skills and knowledge in locating data and in using handbooks.

#### FIFTH QUARTER

<b>ARC 221A Architectural Drafting V</b>	<b>2</b>	<b>4</b>	<b>3</b>
--	----------	----------	----------

Advanced study for architectural drawing commercial building. Consideration is given to coordination of mechanical and electrical features with structural and architectural components.

#### SIXTH QUARTER

<b>ARC 221A Architectural Drafting VI</b>	<b>2</b>	<b>4</b>	<b>3</b>
---	----------	----------	----------

Advanced work in the preparation of the complete set of working drawings for an architectural structure. Preparation of millwork drawings, cabinets, and built-in equipment detail drawings, and door, window, and room schedules. Site plans will be studied and drawn. Final assembly of the complete set of plans for construction purposes will be made. Included in this course will be office practice, and general estimating and specifications.

### AUTOMOTIVE MECHANIC CERTIFICATE—EVENING PROGRAM

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
PME 1101A	Internal Combustion Engine	2	4	3
<b>SECOND QUARTER</b>				
PME 1102A	Engine Electrical & Fuel System	2	4	3
<b>THIRD QUARTER</b>				
PME 1123A	Brakes, Chassis & Suspension	2	4	3

#### FOURTH QUARTER

PME 1221A	Front Suspension & Power Steering	2	4	3
-----------	-----------------------------------	---	---	---

#### FIFTH QUARTER

PME 1124A	Power Trains	2	4	3
-----------	--------------	---	---	---

#### SIXTH QUARTER

PME 1103A	Principles of Auto Air Conditioning	2	4	3
-----------	-------------------------------------	---	---	---

### Automotive Mechanic Certificate—Evening Program

#### FIRST QUARTER

<b>PME 1101A Internal Combustion Engine</b>	<b>2</b>	<b>4</b>	<b>3</b>
---	----------	----------	----------

Development of a thorough knowledge and ability in using, maintaining and storing the various hand tools and measuring devices needed in engine repair work. Study of the construction and operation of components of internal combustion engines. Testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, cooling systems; proper lubrication; and methods of testing, diagnosing, and repairing.

#### SECOND QUARTER

<b>PME 1102A Engine Electrical &amp; Fuel System</b>	<b>2</b>	<b>4</b>	<b>3</b>
--	----------	----------	----------

A thorough study of the electrical and fuel systems of the automobile, battery cranking mechanism, generator, ignition, accessories and wiring; fuel pumps, carburetors, and fuel injectors. Characteristics of fuels, types of fuel systems, special tools, and testing equipment for the fuel and electrical system.

#### THIRD QUARTER

<b>PME 1123A Brakes, Chassis &amp; Suspension</b>	<b>2</b>	<b>4</b>	<b>3</b>
---	----------	----------	----------

Principles and functions of the components of automotive chassis. Practical job instruction in adjusting and repairing of suspension, steering and braking systems. Units to be studied will be shock absorbers, springs, steering systems, steering linkage, front end, types and servicing of brakes.

## FOURTH QUARTER

**PME 1103A Principles of Auto Air Conditioning**      2                      4                      3  
General introduction to the principles of refrigeration; study of the assembly of the components and connections necessary in the mechanisms, the methods of operation, and control; proper handling of refrigerants in charging the system.

## FIFTH QUARTER

**PME 1124A Power Trains**                                      2                      4                      3  
Principles and functions of automotive power train systems; clutches, transmission gears, torque converters, drive shaft assemblies, rear axles and differentials. Identification of troubles, servicing, and repair.

## SIXTH QUARTER

**PME 1221A Front Suspension & Power Steering**      2                      4                      3  
A study of the various types of automotive frames (car and truck), theory of weight distribution, and front suspension parts mounting. Theory of operation, correct disassembly and assembly of all front suspension parts. Designed to give a thorough understanding of steering gears (power and standard), shock absorbers, springs, wheels, tires, power steering, pumps, etc. Theory of steering geometry as related to the construction of various automotive front ends. Theory of balancing and the correct use of various types of balancing machines. A study of and practice in the use of alignment specification charts and machines. Analysis and correction of the wearing problems, vibration, h. steering, pulling, ducking, etc. Shop practice in diagnosis and correction problems.

## COMPUTER PROGRAMMING CERTIFICATE—EVENING PROGRAM

Course Title	C	L
--------------	---	---

### FIRST QUARTER

EDP 114	Introduction to Computer Concepts	3	0
---------	-----------------------------------	---	---



SECOND QUARTER			
EDP 115	FORTRAN	2	2 3
THIRD QUARTER			
EDP 118	COBOL I	2	4 4
FOURTH QUARTER			
EDP 119	COBOL II	2	4 4
FIFTH QUARTER			
EDP 211	Data Processing Applications I	2	4 4
SIXTH QUARTER			
EDP 223	R.P.G. I	2	2 3
SEVENTH QUARTER			
EDP 224	R.P.G. II	2	2 3

### Computer Programming Certificate—Evening Program

#### FIRST QUARTER

**EDP 114 Introduction to Computer Concepts 3 0 3**

An introductory course in computers for the student who plans to pursue the degree in data processing as well as the student who desires a general non-technical knowledge of terminology and concepts. No previous knowledge or experience in data processing is required.

#### SECOND QUARTER

**EDP 115 FORTRAN 2 2 3**

A fundamental course in FORTRAN or PL/1 programming. The FORTRAN or PL/1 language structure, statement, and programming methods and techniques are studied. The student will develop program logic and write FORTRAN or PL/1 programs for solving sample problems.

THIRD QUARTER

**EDP 118 COBOL I** 2 4 4

This course is designed to provide basic training in COBOL programming. The COBOL language structure, statements, and programming methods and techniques are studied. The student will develop program logic and write COBOL programs for solving sample problems.

FOURTH QUARTER

**EDP 119 COBOL II** 2 4 4

A continuation of training in COBOL programming methods and techniques. This course is designed to provide the student with the opportunity to apply skills learned in COBOL I to typical business applications.

FIFTH QUARTER

**EDP 211 Data Processing Applications I** 2 4 4

This course is designed to provide the student with sufficient knowledge in computer methodology to permit the use of computer in business. Emphasis will center around the computer environment with an in-depth study of the integration of the computer with business and industry.

SIXTH QUARTER

**EDP 223 R.P.G. I** 2 2 3

An introductory course in report generator language appropriate for use with a small computing system.

SEVENTH QUARTER

**EDP 224 R.P.G. II** 2 2 3

This course is a continuation of R.P.G. I with special emphasis on applications and programming procedures of the small business.

## ELECTRICAL INSTALLATION AND MAINTENANCE EVENING PROGRAM

Course Title	C	L	CH
<b>FIRST QUARTER</b>			
ELC 1124A Residential Wiring	2	4	3
DFT 1110 Blueprint Reading: Building Trades	0	3	1
<b>SECOND QUARTER</b>			
ELC 1113A AC & DC Machines & Controls	2	4	3
<b>THIRD QUARTER</b>			
ELC 1125A Commercial and Industrial Wiring	2	4	3

### Electrical Installation and Maintenance—Evening Program

#### FIRST QUARTER

**ELC 1124A Residential Wiring** 2                      4                      3

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

**DFT 1110 Blueprint Reading: Building Trades** 0                      3                      1

Students in this course will be introduced to the principles of interpreting blueprints and trade specifications that are common to the building trades. The objectives of this course are to: (1) have the student acquire an understanding of the types of information presented on trade blueprints, (2) to develop a skill in the interpretation of trade blueprints, and (3) to develop the students ability to express ideas graphically through the use of freehand sketches.

## SECOND QUARTER

**ELC 1113A Electric Motor Maintenance and Controls**                      2                      4                      3

Provides fundamental concepts in single and polyphase alternating current circuits, voltages, currents, power measurements, transformers, and motors. Instruction in the use of electrical test instruments in circuit analysis. The basic concepts of AC and DC machines and simple system controls. An introduction to the type control used in small appliances such as: thermostats, times, or sequencing switches.

## THIRD QUARTER

**ELC 1125A Commercial and Industrial Wiring**                      2                      4                      3

Layout, planning, and installation of wiring systems in commercial and industrial complexes with emphasis upon blueprint reading and symbols, the related National Electrical Codes, and application of the fundamentals to practical experience in wiring, conduit preparation, and installation of simple systems.

## HEATING AND AIR CONDITIONING SERVICE—EVENING PROGRAM

Course Title	C	L	CH
--------------	---	---	----

### FIRST QUARTER

AHR 1116A      Oil Burner Installation and Service	2	4	3
--	---	---	---

### SECOND QUARTER

AHR 1117A      Gas Burners, Electric Heat and Liquid Heat Servicing	2	4	3
--	---	---	---

### THIRD QUARTER

AHR 1123      Principles of Air Conditioning	2	4	3
--	---	---	---

### FOURTH QUARTER

AHR 1126A      All Year Comfort and Automatic Controls	2	4	3
---	---	---	---

## Heating and Air Conditioning Servicing—Evening Program

### FIRST QUARTER

**AHR 1116A Oil Burner Installation and Service**      2                      4                      3

An introduction to the principles of heating, terminology, and the use and repair of equipment. Also included will be maintenance and service of heating units and diagnosing troubles within installation. Temperature and thermostat controls are also a part of this course.

### SECOND QUARTER

**AHR 1117A Gas Burners, Electric Heat and  
Liquid Heat Servicing**                      2                      4                      3

An introduction to the principles of heating with the use of gas, electric, or liquid heat units. The course includes installation in service to the above forms of heating units. The course will include servicing and corrective maintenance techniques as it applies to the above three forms of heating units.

### THIRD QUARTER

**AHR 1123 Principles of Air Conditioning and  
Commercial Refrigeration**                      2                      4                      3

Study includes an introduction to principles of Air Conditioning and Commercial Refrigeration. Emphasis is on installation, maintenance, servicing, and repair of both kinds of units.

### FOURTH QUARTER

**AHR 1126A All Year Comfort and Automatic  
Controls**                                      2                      4                      3

The study of auxiliary equipment used in conjunction with refrigeration and air conditioning systems and various control thermostat systems used by manufacturers for the installation of their equipment.



## MACHINIST CERTIFICATE—EVENING PROGRAM

	Course Title	C	L	CH
<b>FIRST QUARTER</b>				
MEC 1101A	Machine Shop Theory and Practice I	1	5	2
DFT 1105	Elementary Blueprint Reading	0	3	1
<b>SECOND QUARTER</b>				
MEC 1102A	Machine Shop Theory and Practice II	1	5	2
DFT 1106	Advanced Blueprint Reading	0	3	1
<b>THIRD QUARTER</b>				
MEC 1103A	Machine Shop Theory and Practice III	1	5	2
<b>FOURTH QUARTER</b>				
MEC 1104A	Machine Shop Theory and Practice IV	1	5	2
MAT 1101	Fundamentals of Mathematics	3	0	3
<b>FIFTH QUARTER</b>				
MEC 1105A	Machine Shop Theory and Practice V	1	5	2
<b>SIXTH QUARTER</b>				
MEC 1106A	Machine Shop Theory and Practice VI	1	5	2

### Machinist Certificate—Evening Program

#### FIRST QUARTER

**MEC 1101A Machine Shop Theory and Practice I 2 4 3**

An introduction to the machinist trade and the potential it holds for craftsmen. Deals primarily with the identification, care and use of basic tools and precision

measuring instruments. Elementary lay-out procedures of lathe, drill press, grinding (off-hand) and milling machines will be introduced both in theory and practice.

<b>DFT 1105 Elementary Blueprint Reading</b>	<b>0</b>	<b>3</b>	<b>1</b>
--	----------	----------	----------

Interpretation and reading of blueprints. Information on the basic principles of the blueprint including lines, views, dimensioning procedures, and notes. Emphasis on the material is as it relates to industry.

## SECOND QUARTER

<b>MEC 1102A Machine Shop Theory and Practice II</b>	<b>2</b>	<b>4</b>	<b>3</b>
--	----------	----------	----------

Advanced operations in lay out tools and procedures, power sawing, drill press surface grinder, milling machine shaper. The student will be introduced to the basic operations on the cylindrical grinder and will select projects encompassing all the operations, tools, and procedures thus far used and those to be stressed throughout the course.

<b>DFT 1106 Advanced Blueprint Reading</b>	<b>0</b>	<b>3</b>	<b>1</b>
--	----------	----------	----------

Advanced blueprint reading and sketching as related to details and assembly drawing used in machine shops. The interpretation of drawings of complex parts and mechanisms for features of fabrication, construction and assembly.

## THIRD QUARTER

<b>MEC 1103A Machine Shop Theory and Practice III</b>	<b>2</b>	<b>4</b>	<b>3</b>
---	----------	----------	----------

Advanced work on the engine lathe, turning, boring and threading machines, grinders, milling machine and shaper. Introduction to basic indexing and terminology with additional processes on calculating, cutting and measuring of spur, helical, and worm gears and wheels. The trainee will use precision tools and measuring instruments such as vernier height gauges, protractors, comparators, etc. Basic exercises will be given on the turret lathe and on the tool and cutter grinder.

## FOURTH QUARTER

**MEC 1104A Machine Shop Theory and Practice IV**                                2                                4                                3

Development of class projects using previously learned procedures in planning, blueprint reading, machine operations, final assembly and inspection. Additional processes on the turret lathe, tool and cutter grinder, cylindrical and surface grinder, advanced milling machine operations, etc. Special procedures and operations, processes and equipment, observing safety procedures faithfully and establishing of good work habits and attitudes acceptable to the industry.

**MAT 1101A Fundamentals of Mathematics**                                3                                0                                3

Practical numbers theory. Analysis of basic operations: addition, subtraction, multiplication and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometric figures used in industry; measurement of surfaces and volumes. Introduction to algebra used in trades. Practice in depth.

## FIFTH QUARTER

**MEC 1105A Machine Shop Theory and Practice V**                                2                                4                                3

This course stresses the development of skills and understanding of machining 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 parts. Good housekeeping and safe working habits are stressed at all times.

## SIXTH QUARTER

**MEC 1106A Machine Shop Theory**                                2                                4                                3

Emphasis is placed on production methods and machines which includes set-up and operation for mass production. Instruction will be given on the turret lathe, milling machine, cylindrical grinders and other production machines. Considerable attention also to be given to specialized equipment such as N/C machinery, electrical discharge machines, gear hob or shaper, or others as available.

### Management Development Program—Evening Program

			Nights Per Week	Contact Hours
<b>FIRST QUARTER</b>				
MDP	3001	Principles of Supervision	2	45
<b>SECOND QUARTER</b>				
MDP	3005	Economics and Management	2	45
MDP	3024	Economics in Business and Industry		
		Creative Thinking		
<b>THIRD QUARTER</b>				
MDP	3017	Supervisory Techniques	2	45
MDP	3012	Employee Evaluation and Interviewing		
MDP	3007	Conference Leadership Training		
		Effective Writing		
<b>FOURTH QUARTER</b>				
MDP	3004	Motivation Techniques	2	45
MDP	3006	Art of Motivating People		
		Effective Communication		

### MANAGEMENT DEVELOPMENT PROGRAM—EVENING PROGRAM

	Nights Per Week	Contact Hours
<b>FIRST QUARTER</b>		
<b>MDP 3001 Principles of Supervision</b>	<b>2</b>	<b>45</b>
This course presents basic and general principles of effective supervisory techniques. The course is divided into seven (7) parts which include: Fundamentals of Supervision, Relationships on the Job, Communications, How to Train Employees, Performance and Job Evaluation, Job Management, and Work Improvement. This course may be taken in its entirety or individual parts.		
<b>SECOND QUARTER</b>		
<b>MDP 3005 Economics in Business and Industry</b>	<b>2</b>	<b>45</b>
Training in Economics gives the supervisor a better understanding of the American Free Enterprise System. Included in this course are: The Five (5) Basic Principles of Capitalism, The Function of Government and Its Responsibility to People, The Laws of Supply and Demand, Wages and Productivity, and The Profit Motive.		

**MDP 3014 Creative Thinking** 2 45

The aim of this course is to improve attitudes and thinking abilities of supervisors, to develop a strong motivation to utilize one's creation potential, to develop curiosity in problem solving, and to gain open-mindedness toward ideas of others.

THIRD QUARTER

**MDP 3017 Employee Evaluation and Interviewing** 2 45

This course provides fundamental information and basic guides for setting up and using a sound employee evaluation program in relation to what is expected of the supervisor. It also gives the supervisor some insight into the problems of talking to the employee about his or her evaluation. This interview procedure includes preparation, opening statements, directing the conversation, tact, and closing the interview. This course should give the supervisor another useful tool in dealing with the people who work with him.

**MDP 3007 Effective Writing** 2 45

This course is designed to help supervisors improve their writing skills with the use of reports, letters, and memoranda which are necessary in daily operation. Fundamentals of sentence structure and elements of clear, concise, and correct writing will be emphasized.

**MDP 3012 Conference Leadership Training** 2 45

This course is designed to aid the supervisor when presiding over groups through sessions in group dynamics. Each participant is given an opportunity to serve in the role of a conference leader.

FOURTH QUARTER

**MDP 3004 Art of Motivating People** 2 45

This course is designed to show the importance of properly motivated employees in relation to production. Emphasis is placed on specific problems in the area of motivation. A further value derived from this course is that of providing the opportunity for self-evaluation for those responsible for motivating others.

**MDP 3006 Effective Communication** 2 45

Emphasis in this course is placed on clear and forceful oral, written, and implied communications. It will provide supervisors with an opportunity to improve their effectiveness in day-to-day communication with employees and fellow supervisors through face-to-face contact.



## MECHANICAL DRAFTING CERTIFICATE—EVENING PROGRAM

Course Title	C	L	CH
<b>FIRST QUARTER</b>			
DFT 1121A    Drafting I	2	4	3
MAT 1101A    Fundamentals of Mathematics	3	0	3
<b>SECOND QUARTER</b>			
DFT 1122A    Drafting II	2	4	3
<b>THIRD QUARTER</b>			
DFT 31131    Drafting III	2	4	3
<b>FOURTH QUARTER</b>			
DFT 31132    Drafting IV	2	4	3

### Mechanical Drafting Certificate—Evening Program

#### FIRST QUARTER

**DFT 1121A Drafting I** 2                    4                    3

An introduction to drafting and the study of drafting practices. Instruction is given in the selection, use and care of instruments, singlestroke lettering, applied geometry, freehand sketching consisting of orthographic and pictorial drawings. Orthographic projection, reading and instrument drawing of principal views, single auxiliary views (primary), and double (oblique) auxiliary views will be emphasized. Dimensioning and note practice will be studied with reference to the American Standards Association practices. Methods of reproducing drawing will be included at the appropriate time.

**MAT 1101A Fundamentals of Mathematics** 3                    0                    3

Practice number theory. Analysis of basic operations: addition, subtraction, multiplication and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometric figures used in industry; measurement of surface and volumes. Introduction to algebra used in trades. Practice in depth.

## SECOND QUARTER

### **DFT 1122A Drafting II** 2            4            3

The trainee will study simple and successive revolutions and their applications to practical problems. Sections and conventions will be studied, and both detail and assembly sections will be drawn. Intersections and developments will be studied by relating the drawing to the sheet metal trades. Models of the assigned drawings will be made from construction paper, cardboard, or similar materials as a proof of the solution to the problems drawn.

## THIRD QUARTER

### **DFT 31131 Drafting III** 2            4            3

An introduction to mechanical drafting beginning with problems concerning precision and limit dimensioning. Methods fastening materials, and fasteners; keys, rivets, springs, and welding. Symbols will be studied and drawings will be made involving these items. Principles of design will be introduced with study of basic mechanisms of motion transfer; gears, cams, calculating dimensions will be studied. Drawings will be made involving these mechanisms.

## FOURTH QUARTER

### **DFT 31132 Drafting IV** 2            4            3

Principles of design sketching, design drawings, layout drafting, detailing from layout drawings, production drawings and simplified drafting practices constitute areas of study. Forging and casting drawings will be made from layouts. Specifications, parts list and bill of materials are emphasized in this course. The student will develop a complete set of working drawings of a tool, jig, fixture or simple machine and learn principles of design, handbook and manual usage.

## SECRETARIAL CERTIFICATE—EVENING PROGRAM

	Course Title	C	L	CH
FIRST QUARTER				
BUS 102	Typewriting I	2	3	3
ENG 206	Business Communications	3	0	3

SECOND QUARTER

BUS 103	Typewriting II	2	3	3
BUS 117	Office Machines	3	2	4

THIRD QUARTER

BUS 106	Shorthand I	5	0	5
BUS 134	Personal Grooming	3	0	3

FOURTH QUARTER

BUS 107	Shorthand II	5	0	5
BUS 214	Secretarial Procedures	5	0	5

**Secretarial Certificate—Evening Program**

FIRST QUARTER

<b>BUS 102 Typewriting I</b>	<b>2</b>	<b>3</b>	<b>3</b>
------------------------------	----------	----------	----------

Emphasis is on study of key board, the mechanics of the typewriter necessary for the acquisition of elementary typewriting skills, and development of speed and accuracy.

<b>ENG 206 Business Communication</b>	<b>3</b>	<b>0</b>	<b>3</b>
---------------------------------------	----------	----------	----------

Emphasis is on the mechanics of writing business reports, letters involving credit, collections, adjustments, complaints, orders, acknowledgements, inquiries, job applications and data sheets.

SECOND QUARTER

<b>BUS 103 Typewriting II</b>	<b>2</b>	<b>3</b>	<b>3</b>
-------------------------------	----------	----------	----------

Emphasis is on the development of speed and accuracy with further mastery of correct typewriting techniques which are applied in tabulation, manuscript, correspondence and business forms.

<b>BUS 117 Office Machines</b>	<b>3</b>	<b>2</b>	<b>4</b>
--------------------------------	----------	----------	----------

This course is designed to prepare student to operate the machines used in duplicating and calculating processes with which they will most often come in contact on the job. An understanding of the functions of each machine and how it simplifies office work will be developed. An appreciation for accuracy of machine work should be developed as well as a duplicating and calculating machines vocabulary.

### THIRD QUARTER

**BUS 106 Shorthand I** 5 0 5

A beginning course in the theory and practice of reading and writing Gregg Shorthand. Emphasis is on phonetics, penmanship, word families, brief forms and phrases.

**BUS 134 Personal Grooming** 3 0 3

Designed to help the student recognize the importance of physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on poise, grooming, and methods of personal improvement.

### FOURTH QUARTER

**BUS 107 Shorthand II** 5 0 5

Continued study of theory with greater emphasis on dictation and elementary transcription.

**BUS 214 Secretarial Procedures** 5 0 5

Designed to acquaint the student with the responsibilities encountered by a secretary during the work day. These include the following: receptionist duties, handling the mail, telephone techniques, postal regulation, office duplicating, office records, purchasing of supplies, office organization, and insurance claims.

## OCCUPATIONAL EXTENSION

### NON-CREDIT: TECHNICAL AND VOCATIONAL COURSES

Non-credit Technical and Vocational courses are offered to persons employed or are seeking employment at the skilled technical and vocational levels. Adults usually attend to increase their skills and understandings, to improve their competency, and to qualify for advancement.

Examples of available non-credit courses are:

#### **AUT 3501 Small Gas Engines**

This course of study is especially designed for those people interested in servicing lawn mowers, and many other small gasoline engines. Students who complete this course will be able to work with their own lawn mowers and other small gas engines used throughout the year.

### **AER 3003      Pilot Ground School**

The course is a ground school for pilot training in aircraft, power plants, safety, radio, navigation, traffic control, weather, and the amended Federal Aviation Exam. Students will be expected to purchase their own navigational study packet.

### **BPR 3001      Basic Blueprint Reading**

Students in this course will be introduced to the principles of interpreting blueprints and trade specifications that are common to the building trades. The objectives of this course are to: (1) have the student acquire an understanding of the types of information presented on trade blueprints. (2) to develop a skill in the interpretation of trade blueprints, and (3) to develop the student ability to express ideas graphically through the use of freehand sketches.

### **ELC 3001      National Electrical Code**

This course is provided for those who wish to study the National Electrical Code in preparation for the licensing examination. Instruction will include the latest code revisions, safety measures, and standard practices in the wiring of single and multi-family dwellings, commercial establishments, and industrial locations.

### **DFT 3002      Blueprint Reading Electrical Trades**

The course is provided for those who must interpret commercial-type building plans in terms of the electrical installation. Subjects covered include, general surveys of electrical requirements, lighting fixtures, service entrance and meter facilities.

### **ELC 3002      Estimating Costs for Electrical Trades**

This course is provided for those who must estimate cost of electrical construction. The tradesman is taught to estimate the amount and cost of materials, time and equipment needed to complete a construction project.

### **DFT 3004      Blueprint Reading Plumbing Trades**

Students in this course will be introduced to the basic fundamentals of reading and interpreting prints. Instructional units are arranged in logical sequence and each unit concludes with an assignment in which the student must interpret a trade blueprint which incorporates the principles presented.

### **CAR 3001      Estimating Costs for Carpentry Trades**

This is a practical course in quantity "take-off" from prints of jobs performed by the carpenter. Figuring the quantities of materials needed and cost of building various components and structures.

### **PLU 3003      Estimating Costs for Plumbing Trades**

This is a practical course in quantity "take-off" from prints of jobs performed by the plumber. Figuring the quantities of materials needed and costs of installing various components.



### **ELC 3002      Direct and Alternating Current**

A study of the electrical structure of matter and electron theory, the relationship between voltage, current, and resistance in series, parallel circuits. An analysis of direct current circuits by Ohm's Law and Kirchhoff's Law. A study of the sources of direct voltage potentials. Fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance. Analysis of alternating current circuits.

### **AUT 3503      Outboard Motor Repair**

This course of study is especially designed for those people interested in servicing outboard motors. Emphasis will be put on techniques to be used by private boat owners.

Other courses available are:

Cabinet Making  
Basic Arc Welding  
Advanced Arc Welding  
Chartered Life Underwriter  
Fundamentals of Real Estate  
Real Estate Appraisal  
Motorcycle Repair  
Plumbing  
Insurance Adjusting (six 30 hour courses)  
Uniform Commercial Code  
Investments & Securities  
Pesticides  
Ornamental Horticulture  
Tobacco Ticket Marking  
Tobacco Auctioneering

### **LAW ENFORCEMENT TRAINING**

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

The school also offers a two-year associate degree curriculum in Police Science and Criminology.

### **HOSPITALITY TRAINING**

Training is provided for personnel preparing to enter or who are already in the motel, restaurant, hospital and retail businesses. Some of the subject areas

are as follows: Front Office Procedure, Housekeeping, Waiter-Waitress Training, Hotel-Motel Law, Sales Promotion, Human Relations, Communication, Basic Nutrition and Menu Planning, Overview of School Food Service, Use and Care of Equipment, Quantity Cooking, Quantity Food Preparation.

### **FIRE SERVICE TRAINING**

Upgrading of fire service personnel is taken directly to the individual fireman. Training sessions are held in the local fire departments permitting the men to be trained as organized groups. Fire Service classes include: Forcible Entry, Rope Practices, Portable Fire Extinguishers, Fire Apparatus Practices, Protective Breathing Equipment, Firefighting Procedures, etc.

### **SPECIAL INDUSTRIAL PROGRAMS**

Classes may be in the immediate area in which the industry is engaged. The purpose of the course may be pre-employment training, on-the-job training, or the upgrading of the skills of present employees.

In addition special classes may be developed for training of personnel for a New Industry locating in the area.

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

For assistance in developing occupational extension classes, inquiries and requests are welcomed by the Occupational Extension Director.

## **GENERAL ADULT EDUCATION**

General adult courses are offered to enable adults to improve themselves educationally and culturally or to broaden their avocational interests.

### **GED 2001      High School Preparation**

A review or refresher course in math, reading, and English for individuals preparing to take the high school equivalency (GED) Test. Instruction is designed to meet the needs of individuals at their own particular education level and at their own rate of learning. Enrollment in the classes is open at all times. This refresher study will aid the individual in successfully completing the High School Equivalency (GED) Exam and in receiving a High School Equivalency Certificate.

### **LAN 2002      Speed Reading**

A course designed to improve reading comprehension by training to read more rapidly and accurately. The keystone machine is used for drill to broaden the span of recognition, and comprehension in large units. Reading faults will be analyzed and principles of vocabulary building stressed.

**AUT 3002      Auto Care and Tune-Up**

Auto Care and Tune-Up is offered to familiarize women and men with the automobiles they drive. The course has two primary objectives: to give ladies and men a basic knowledge of the general maintenance requirements of a car, and to prepare them to make emergency repairs when necessary.

**HEC 3108      Home Sewing**

A course for beginning sewing students, including the basic information necessary for construction of simple garments from patterns. Areas covered are as follows: use of the machine, pattern selection and alteration, fabric selection and preparation, linings and interfacings, construction techniques, fitting, and pressing.

**HEC 3101      Advanced Sewing**

A continuation of Home Sewing for students with some knowledge of sewing. New areas covered are as follows: analysis of self as related to pattern and clothing selection, principles of design, zipper insertion, and advanced construction.

**HEC 3101      Tailoring**

A course for the advanced student of sewing who has completed Advanced Sewing. It includes the application of sewing techniques in working with heavy fabrics, such as wool, and the construction of suits and coats.

**HEC 3107      Drapery Making**

Areas taught will include necessary supplies, various assorted window treatments, selection of fabrics, measuring accurately, computing yardage and cutting and sewing lined or unlined draperies.

**TEX 3014      Furniture Upholstery For Homemakers**

This course is designed to instruct the student to restore, repair, mount and tie springs, the use of padding and covering a frame and attach the finished covering materials to the furniture.

**HEC 3305      Interior Decorating**

A course designed to give the student greater understanding and appreciation of furniture styles, use of color and design in fabrics, floor coverings, and accessories. It includes a complete study of room arrangement, color, backgrounds, period style in furniture, and current trends.

**ART 2011      Fundamentals of Photography**

The basic camera techniques are emphasized with an introduction to the photographic materials, dark room, its equipment and the techniques and/or procedures commonly utilized. Beginning with the simple black and white print advancing to more specialized printing and enlarging will be presented dependent upon the needs and interest of the class.

**ELO 2003      Income Tax**

A course designed to give the student information that will be helpful in completing personal income tax forms. Federal and State Tax laws procedures, and practical applications are included.

**SAF 3002      Boating Safety & Seamanship**

This course, offered in conjunction with the U.S. Coast Guard Auxiliary, is designed to promote boating safety by making the novice boatman more knowledgeable about the safety and operation of boats. Subject areas covered include the following: Safety, rules of the road, boat handling, legal requirements, aids to navigation, charts and compasses, marine engines, sailboats, weather, etc.

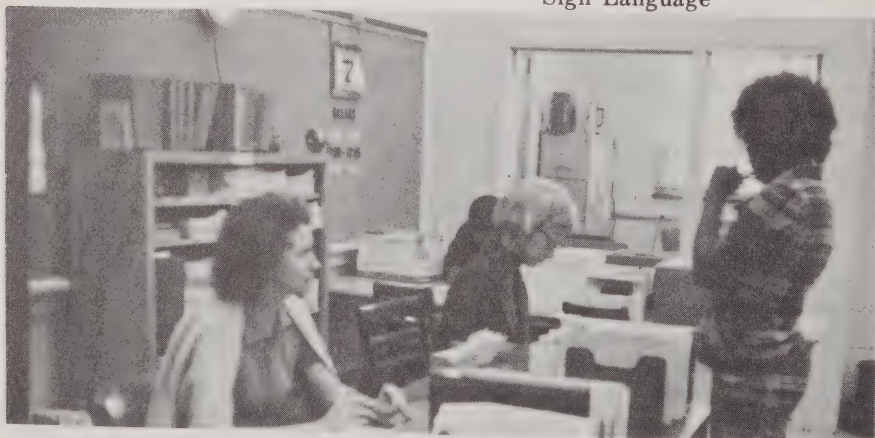
**DRI 3002      Driver Education**

A course designed to teach adults how to drive an automobile. It consists of 6 hours of classroom instruction teaching "Traffic Law and Highway Safety," too enable the student to obtain a learner's permit from the License Bureau; followed by 30 hours in the classroom with the textbook "Let's Drive Right," twenty-four hours are required in the car - sixteen observing and eight driving. The 24 hours may be taken simultaneously with the 36 hours classroom instruction if scheduling permits.

Other available courses are:

Art (Basic), Sketching, & Drawing  
Arts & Crafts (variety)  
Baking & Decorations  
Copper Tooling  
Creative Writing  
Crewel Embroidery  
Crochet

Decoupage  
Floral Design  
Investments & Securities  
Knitting  
Macrame  
Rug Hooking  
Seasonal Decorations  
Sign Language





## ADULT BASIC EDUCATION

Classes are for adults 16 years of age or older (not enrolled in public school) who have less than an eighth grade level education. The classes are designed as an adult self-improvement program. Basic subjects include beginning or refresher level reading, writing, spelling and arithmetic. Materials used are of adult level interests and offer practical assistance in helping the individual to become a more effective person at home and on the job.

Individuals enrolled in Adult Basic Education begin at their own level of education and progress at their own rate in materials designed for them. Upon completion of the eighth grade level, students will be able to begin working toward a High School Equivalency Certificate. All Classes are free of charge and interested students should contact Pitt Tech for information about classes in their community or enroll at the classroom when the classes are announced.

Classes are available in Greenville in the afternoon as well as at night and are offered year-round. Such classes are held at:

Meadowbrook Housing Office—Monday, Wednesday, Friday  
Kearney Park Housing Office—Tuesday and Thursday  
Moyewood Social Services Center—Tuesday and Thursday

## THE LEARNING CENTERS

The Learning Centers are set up by the Department of Community Colleges for students who wish to learn on their own. Study areas include the following: Preparation for taking the high school equivalency test; preparation for entrance into a curriculum program; college preparation; upgrading in specific areas; and study of subjects for personal satisfaction.

### Where and When

Pitt Technical Institute maintains Learning Centers at these locations:

PITT TECHNICAL INSTITUTION  
(756-3130)  
LOCATED ON HIGHWAY 11 SOUTH

Monday - Thursday	8:00 a.m.	4:00 p.m.
	6:00 p.m.	10:00 p.m.
Friday	8:00 a.m.	3:00 p.m.



**FARMVILLE**  
(753-5747)  
LOCATED AT 112 E. WILSON STREET

Monday - Thursday	9:00 a.m.	12:00 a.m.
	1:00 p.m.	4:00 p.m.
	7:00 p.m.	10:00 p.m.
Friday	9:00 a.m.	12:00 a.m.
	1:00 p.m.	3:00 p.m.

### **ADMISSION**

Anyone 18 years or older who is not presently enrolled in a secondary school may enroll in the centers at no charge.

### **ATTENDANCE**

Regardless of your previous education-you start where you left off-there are programmed materials for you. We will help you start at whatever level and in whatever subjects you want or need. You may study as many hours each day and as many days each week as the centers are open. Your progress will be limited only by your ambition and ability. There are no class periods. Each student sets his own work sessions. You work toward your own goal at your pace in a program individually designed for you with the help of the coordinator.

### **HIGH SCHOOL EQUIVALENCY TESTS**

Pitt Technical Institute has been designated an official testing center for the General Educational Development Tests by the American Council on Education. The State Department of Public Instruction will issue a "Certificate of High School Equivalency" to adult residents who have not completed high school provided they meet the following requirements:

1. Make a standard score of 35 or above on each of the five tests and an Average standard score of 45 on all 5 tests.
2. Be nineteen years of age or older (an 18 year old may take the test provided he has been out of the public schools for 6 months.)
3. Make application for tests on official application blanks that are available at Pitt Technical Institute and in the offices of the City and County Superintendents of Schools.
4. Pay a test fee of \$3.00.

The GED tests will be given at the Institute on the first two Wednesdays of each month from 12:00 noon till 5:00 p.m. It will take both Wednesdays to complete the battery of 5 tests.

Training for high school completion is available at the Institute.

***CAREER OPTION  
NURSE EDUCATION -  
TENTATIVE***

## CAREER OPTION NURSING EDUCATION PROGRAM

Tentative curriculum planned for September 1974 subject to approval by the appropriate agencies.

The Career Option Nursing program is based on the career option concept in that its two levels provide training leading to a career either as a Licensed Practical Nurse or Registered Nurse. Level I is basic to the LPN and the Associate Degree programs. Upon completing Level I students will either take the LPN examination or continue with Level II in order to complete the requirements to qualify for the licensing examination for Registered Nurse.

More specifically, Level I or the LPN portion of the instruction is concerned with the knowledge and techniques necessary for bedside nursing care, meeting the daily needs of patients, and with assisting the registered nurse with complex nursing procedures and nursing care. Instruction for Level II or the remaining requirements for the Associate Degree is additionally concerned with the knowledge and skills concerning all aspects of the patient's daily needs, assisting the patient in becoming independent and/or rehabilitated, and directing the patients care. Level II presents progressively more complex technical theory, experience, and responsibility as a professional nurse trainee.

Students are selected on the basis of demonstrated aptitude for nursing, as determined by pre-entrance tests, interviews with faculty members, high school records, character references and physical examinations.



## CAREER OPTION NURSING EDUCATION PROGRAM

### SUGGESTED CURRICULUM BY QUARTERS

#### FIRST LEVEL

FIRST QUARTER		C	L	CL	CH
NUR	Fundamentals of Nursing	6	6	0	9
BIO	Basic Life Sciences	4	2	0	5
SOC	Vocational, Personal, & Community Relations	3	0	0	3
NUT	Basic Nutrition	3	0	0	3
MAT	Basic Math for Nurses	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		19	8	0	23

#### SECOND QUARTER

NUR	Medical-Surgical Nursing I	5	0	15	10
ENG	* Grammar	3	0	0	3
NUR	Pharmacology	3	0	0	3
PSY	Human Relations	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		14	0	15	19

#### THIRD QUARTER

NUR	Medical-Surgical Nursing II	12	0	15	17
PSY 120	Human Growth & Development	<u>5</u>	<u>0</u>	<u>0</u>	<u>5</u>
		17	0	15	22

\*Students will be tested and placed according to their abilities.

FOURTH QUARTER

NUR	Nursing Seminar	3	0	0	3
NUR	Maternal Child Health Nursing I	<u>8</u>	<u>0</u>	<u>15</u>	<u>13</u>
		11	0	15	16
TOTAL FOR FIRST LEVEL		80			

FIFTH QUARTER

BIO	Integrated Sciences I	4	2	0	5
NUR	Clinical Nursing I	5	0	15	10
PSY	General Psychology	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		12	2	15	18

OR

NUR	* Maternal Child Health Nursing II	5	0	15	10
PSY	General Psychology	3	0	0	3
BIO	Integrated Sciences I	<u>4</u>	<u>2</u>	<u>0</u>	<u>5</u>
		12	2	15	18

SIXTH QUARTER

NUR	Psychiatric Nursing	6	0	15	11
BIO	Integrated Sciences II	4	2	0	5
PSY	Abnormal Psychology	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		13	2	15	19

\*Students will be divided into two groups and alternate courses for the fall & spring quarters if necessary to intensify the quality of learning experiences in the clinical facility.



SEVENTH QUARTER

BIO	Integrated Sciences III	4	2	0	5
NUR	Clinical Nursing I	5	0	15	10
ENG	College Parallel Composition I	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		12	2	15	18

OR

BIO	Integrated Sciences III	4	2	0	5
NUR	Maternal Child Health II	5	0	15	10
ENG	College Parallel Composition II	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		12	2	15	18

EIGHTH QUARTER

NUR	Clinical Nursing II	6	0	24	14
NUR	Nursing Seminar	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		9	0	24	17

NUR	Elective Special Problems in Nursing (Not required)	0	4	0	2
-----	---	---	---	---	---

TOTAL CREDIT HOURS SECOND LEVEL 72

TOTAL CREDIT HOURS FIRST LEVEL 80

TOTAL CREDIT HOURS FOR PROGRAM 152

GENERAL EDUCATION CREDIT HOURS 49  
(32% of total credit hours)

NURSING EDUCATION 103  
(68% of total credit hours)

**NURSING EDUCATION CURRICULUM  
COURSE DESCRIPTIONS**

Course Title	C	L	CL	CH
<b>NUR Fundamentals of Nursing</b>	<b>6</b>	<b>6</b>	<b>0</b>	<b>9</b>
Fundamentals of Nursing being the foundation of all subsequent courses introduces the student to nursing, to the concept of wellness, to the patient, and his environment. Presents principles and techniques in the performance of skills by the nurse in meeting the needs common to all patients. Stresses body mechanics, medical and surgical asepsis and other supplementary nursing functions. Nursing care plans, recording, and observational skills are introduced. The learning center and nursing laboratory are used for practice and development of skills, as well as the local hospital.				
<b>BIO Basic Life Sciences</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>5</b>
This course presents the student with a 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 principals and concepts of the physical sciences and life sciences. Encompasses bacterial anatomy, physiology, and immunology. Presentation of the normal body as a basis for understanding variations from the normal.				
<b>SOC Vocational, Personal, and Community Relations</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
Orients the student to the role of nursing in a dynamic health care system. It serves as an introduction to the historical, legal, and ethical aspects of nursing. Religious and racial aspects of nursing are introduced, community groups involved in health care, and the team are stressed. This orientation encompasses health care maintenance and the prevention of illness. Emphasis is placed on individual's reactions to stressors in group situations.				
<b>NUT Basic Nutrition</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
The science of normal nutrition including the study of nutrients, how they are used by the body and sources and types of food necessary for the balanced diet in developmental and ethnic variations, physiological processes of digestion, absorption, and metabolism are discussed. Introduction to hospital diets is covered.				
<b>MAT Basic Math for Nurses</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>3</b>
Review of basic mathematics: whole numbers, common fractions, decimals, percents, ratio and proportions. Also includes Roman and Arabic numerals; temperature conversions; systems of measurements; methods of calculating dosages; and preparing solutions.				

<b>NUR Medical-Surgical Nursing I</b>	<b>5</b>	<b>0</b>	<b>15</b>	<b>10</b>
Introduces the student to the area of medical-surgical nursing. Symptoms of illness, classification of diseases, pre and post operative care, long term illness, and rehabilitation are included. Nursing the patient with circulatory and respiratory disorders, cancer and the dying patient are covered. Clinical time is spent in medical-surgical departments of the hospital with additional learning experiences provided in the emergency room, operating room, recovery room, and in an extended care facility. Prerequisites: Fundamentals of Nursing, Basic Nutrition, Basic Life Science.				
<b>ENG Grammar</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>3</b>
Designed to aid the student in the improvement of self-expression in grammar. The approach is functional with emphasis on grammar, diction, sentence structure, punctuation, and spelling. Intended to stimulate students in applying the basic principles of English grammar in their day-to-day situations in professional and social life.				
<b>NUR Pharmacology</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>3</b>
Presents the student with facts concerning sources, effects, legalities and usage of therapeutic agents. Conversion between systems, prescription of medications, drug classifications, and nursing implications are covered. Prepares the student to administer medications and compute dosages. Prerequisite: Basic Math for Nurses.				
<b>PSY Human Relations</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
A study of basic principles of human behavior. Emphasis on methods of communication and the nurse's understanding of herself and others. The nurse-patient relationship is also stressed. Beginning concepts of abnormal psychology and basic nursing principles are introduced.				
<b>NUR Medical-Surgical Nursing II</b>	<b>12</b>	<b>0</b>	<b>15</b>	<b>17</b>
Continuation of study of disorders by body systems, covers causes, diagnosis, treatment & nursing care of these disorders. Communicable diseases of the adult and disaster and emergency nursing are included. Clinical assignment will be on medical-surgical units of local hospitals, with additional learning experiences provided in the emergency room, operating room, recovery room and extended care facility.				
<b>PSY Human Growth &amp; Development</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>5</b>
A study of the basic principles of physiological and psychological growth stages of a child from conception through adolescence.				
<b>NUR Nursing Seminar</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
Comprehensive presentation of the practical nurse's ethical and legal responsibilities, organizations for membership and job opportunities. Stresses importance of continued education and preparation for state licensing examination for those students electing to graduate. Orientation for responsibilities of registered nurses, history of professional nursing, and role of the technical nurse are stressed for the student electing to continue into the fifth quarter. Prerequisite: Med-Surg Nursing II.				

**NUR Maternal Child Health Nursing I** 8 0 15 13

Presents the physiology and nursing care of the woman during normal antepartum, labor, delivery, and postpartum with a brief survey of possible complications. Evaluates the needs of the newborn and introduces the student to the etiology, treatment and nursing care of common and acute disorders and illnesses that effect the infant, child, and adolescent. Laboratory experience is divided between the pediatric and obstetrical floors of local hospitals with students observing in the public health departments and local doctors' offices.

Prerequisites: Medical-Surgical Nursing II; Human Growth & Development.

**BIO Integrated Science I** 4 2 0 5

A study of bodily functions including the anatomy, physiology, chemistry, and physics of the human organism. Emphasis is given to human anatomy and physiology and how it applies to health and disease. This course is designed to prepare the nursing student for the more advanced nursing courses and provides a background to enable the nursing student to better perform technical nursing skills.

Prerequisite: Basic Life Science or equivalent.

**NUR Clinical Nursing I** 5 0 15 10

Conceptual study of biological and emotional components of frequently occurring illnesses. Implementation of the management of patient care within the role of the technical nurse. Opportunity is provided for using previous knowledge as well as that acquired concurrently in planning and implementing nursing care. Nutrition, pharmacology, history, and legal aspects of nursing are integrated in course content and clinical experience. Planned clinical learning experiences are selected on the basis of the students needs and in order to meet the objectives for the day. Individual student's abilities are considered in all patient assignments.

Prerequisites: Medical-Surgical Nursing II.

**PSY General Psychology** 3 0 0 3

A study of the various fields of psychology; the development process, emotion, frustration and adjustment, mental health, attention and perception, problems of group living. Attention is given to the application of these topics to problems of study, self-understanding and adjustment to the demands of society.

Prerequisite: Human Relations.

**NUR Maternal Child Health II** 5 5 15 10

Continuation of Maternal Child Health Nursing I with more emphasis on the abnormal pregnancy, abnormalities of the newborn, and intensive care of the premature infant. More complicated disorders and illnesses of children, and a study of how psychological concepts and family relationships affect nursing care are incorporated. Clinical experiences are planned so that a balance is maintained between pediatric and obstetrical experiences. These experiences are provided in the local hospital, doctors' offices, and in selected community agencies.

Prerequisite: Maternal Child Health Nursing I.

**NUR Psychiatric Nursing** 6 15 0 11

Conceptual and ongoing approach to the nurses' role in beginning to function thera-



peutically and in individual interpersonal-relationships with the mentally ill patient. The course emphasizes knowledge and identification of personality and behavior deviation experienced by the mentally ill patient. Emphasis is also placed on cognizance and utilization of self as a therapeutic tool. Laboratory assignments are made in a state mental hospital, local mental health clinics, local alcoholic rehabilitation center, and other community mental health related facilities.

Prerequisites: Medical Surgical Nursing II  
 Human Relations  
 Human Growth & Development  
 General Psychology

**BIO Integrated Science II** 4      2      0      5

A study of bodily functions including the anatomy, physiology, chemistry, and physics of the human organism. Emphasis is given to human anatomy and physiology and how it applies to health and disease. This course is designed to prepare the nursing student for the more advanced nursing courses and provides a background to enable the nursing student to better perform technical nursing skills.

Prerequisite: Integrated Science I.

**PSY Abnormal Psychology** 5      0      0      5

This course is designed to give the student extensive study of the symptoms, contributing factors, treatment, and outcomes of the mentally ill. Classifications and nomenclature of psychoneurosis, psychosis, and other illnesses are discussed to increase the student's knowledge and to enhance ability to work with mentally disturbed people.

Prerequisite: Introduction to Psychology.

**BIO Integrated Science III** 4      2      0      5

A study of the basic microbiology and how it applies to health and disease.

Prerequisite: Integrated Science II.

**Composition** 3      0      0      3

Designed to aid the student in the improvement of self-expression in composition. Emphasis is on the sentence, paragraph, and theme.

Prerequisite: Grammar.

**NUR Clinical Nursing II** 5      0      24      13

A continuation of Clinical Nursing I placing emphasis upon the concepts of rehabilitative and adaptive processes. Students are expected to develop confidence and competency in all previously learned skills by planning, guiding, and directing total patient care using her instructor as the principle resource.

Prerequisites: Clinical Nursing I  
 Integrated Science III

**NUR Nursing Seminar** 3      0      0      3

Introduces some of the problems encountered by the nurses as they make the change from student to staff nurse. Reviews legal and ethical responsibilities and points our current trends in the nursing profession. Students will be expected to



present problems for discussion, do special research on problems encountered and approaches for use of problem solving techniques. Stresses avenues for continued learning after graduation.

Corequisite: Clinical Nursing II.

**NUR Special Problems in Nursing** 0 4 0 2

Adapted to meet the special problems of individual students this course is a program of guided activities in the library, learning center, or nursing laboratory to improve or enhance the student's nursing skills, and knowledge.

**ENG College Parallel Composition II** 3 0 0 3

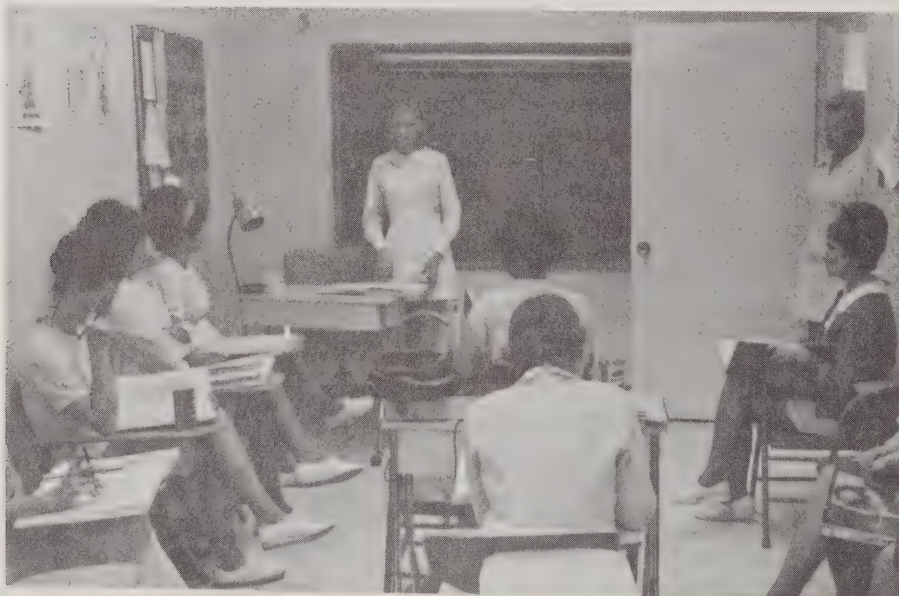
Analysis of the short story introduction to the techniques of research and documentation; frequent themes.

Prerequisite: College Parallel Composition I.

**ENG College Parallel Composition I** 3 0 0 3

Rhetorical analysis of essays, frequent themes based on reading selections.

Prerequisite: None.







APPLICATION FOR ADMISSION  
**PITT TECHNICAL INSTITUTE**  
 P. O. DRAWER 7007  
 GREENVILLE, NORTH CAROLINA 27834

**GENERAL**

NAME: Mr. Mrs. Miss	Last	First	Middle	Date of Birth	Age	Race
Address:	Number	Street	Town	Zip Code		
County of Residence	State of Legal Residence		Telephone No.	Social Security No.		
Marital Status:	<input type="checkbox"/> Single <input type="checkbox"/> Married <input type="checkbox"/> Separated <input type="checkbox"/> Divorced <input type="checkbox"/> Widowed					
If Single, Give Name and Address of Parent or Guardian _____						
If Married Woman, Give Maiden Name _____						
General State of Health _____						
Physical Defects _____						

**EDUCATION**

Last School Attended	Date Graduated	Date of Expected Graduation
Address:	No. _____ Mo. _____ Yr. _____	No. _____ Mo. _____ Yr. _____
Circle Highest Grade Completed:	6 7 8 9 10 11 12 13 14 15 16	

**EMPLOYMENT**

Name of Present Employer	Occupation	Years Employed
Address of Employer		Telephone No.

**MILITARY SERVICE**

Have You Had Military Service	Date of Discharge	Type of Discharge
<input type="checkbox"/> Yes <input type="checkbox"/> No	Branch of Service	

**PROGRAM**

UNDERLINE PROGRAM FOR WHICH YOU ARE MAKING APPLICATION

DEGREE PROGRAMS

- Agriculture Business
- Agriculture Chemicals
- Air and Water Resources
- Architectural Drafting
- Commercial Art and Graphic Design
- Electronic Data Processing-Business
- Electronics
- Food Services Management
- Mental Health
- Police Science - Law Enforcement
- Veteran's Farm Cooperative Program
- Other \_\_\_\_\_

DIPLOMA PROGRAMS

- Automobile Mechanics
- Electrical Installation and Maintenance
- Electronics Servicing
- Heating, Refrigeration and Air Conditioning
- Machinist Trade
- Mechanical Drafting
- Nurse Education
- Operating Room Assistant
- Teacher Assistant
- Welding
- Other \_\_\_\_\_

DO YOU WISH TO APPLY FOR FINANCIAL AID

Yes  
 No

I certify that the information on this application is correct and complete. I agree to abide by the rules and regulations of the institute if I am accepted as a student.

Signature of Applicant \_\_\_\_\_

BUSINESS

- Accounting
- Business Administration
- General Office Technology
- Secretarial Science
- Other \_\_\_\_\_

CERTIFICATE PROGRAMS

- Cosmetology
- Fairriving
- Masonry
- Other \_\_\_\_\_

Date \_\_\_\_\_

Date you plan to enter \_\_\_\_\_



PITT TECHNICAL INSTITUTE  
P.O. Drawer 7007  
Highway 11, South  
Greenville, North Carolina