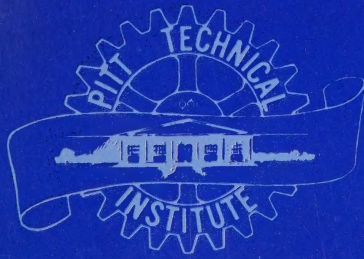


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LEARNING RESOURCES CENTER
Pitt Community College
Greenville, North Carolina



**PITT
TECHNICAL
INSTITUTE**

Greenville, North Carolina

1974

ARCHIVES



Students having questions not answered in this publication may secure additional information from The Director of Student Personnel, 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 Junior Colleges
North Carolina Department of Community Colleges
Student Services Personnel Association
Association of Occupational Curriculum Directors

Accredited By

Southern Association of Colleges and Schools

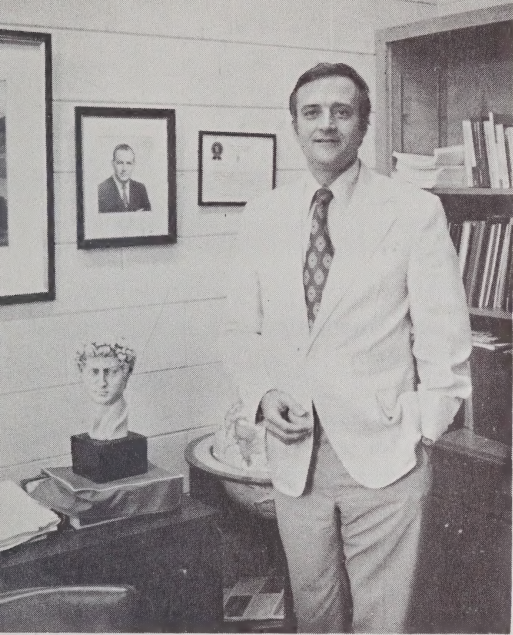
Catalog of Courses Day and Evening School

Volume VI
1972-1974

ARCHIVES

TABLE OF CONTENTS

GENERAL INFORMATION	25
TECHNICAL EDUCATION	51
Agriculture Business	53
Agriculture Chemicals	57
Air and Water Resources Technology	61
Architectural Drafting	64
Commercial Art and Graphic Design	68
Electronic Data Processing-Business	71
Electronics Technology	74
Mental Health Technology	77
Police Science	80
Accounting	84
Business Administration	87
Secretarial	90
Veterans Farm Cooperative Program	94
Police Science-Inservice Officer	97
Surveying, Technical Specialty	100
Guided Studies	143
Cooperative Education	146
VOCATIONAL EDUCATION	149
Automotive Mechanics	151
Electrical Installation and Maintenance	154
Electronic Servicing	156
Heating, Refrigeration and Air Conditioning	159
Machinist Trade	161
Mechanical Drafting	164
Practical Nurse Education	167
Teacher Assistant	170
CERTIFICATE PROGRAMS	172
Cosmetology	172
Farriering	174
Masonry	175
CONTINUING EDUCATION	201
Evening Certificate Programs	203
General Adult Education	223



A MESSAGE FROM THE PRESIDENT

Pitt Technical Institute has a commitment to the philosophy that everyone should have an opportunity through the educational process to develop himself to his maximum potential. This Institute implements this philosophy by providing quality education at a low cost under an "open-door" policy that excludes no one.

The overall objective of Pitt Technical Institute is to prepare its students for a life-long success in whatever field they choose to enter. Our method to this result is to continually upgrade the technical and vocational curricula so that they realistically prepare the student for a successful venture into our present day economy.

This Institute prides itself in having on its staff the most competent individuals that can be found. The Institute also is very proud of its beautiful location, magnificent buildings, its well-equipped laboratories, shops and classrooms.

You have the opportunity. I urge you to take advantage of this opportunity. Come to visit with us and discover the possibility of a technical or vocational career.

William E. Fulford, Jr.
President

CALENDAR 1972-1973

FALL QUARTER

September	1	Friday	Instructor Orientation
	5,6	Tuesday	Registration
		Wednesday	
	7	Thursday	First day of classes
	15	Friday	Last date for late registration and to drop/add a course
October	12	Thursday	Mid-Quarter Grade Reports due
November	22	Wednesday	End of Fall Quarter
	23	Thursday	Thanksgiving Holidays
	24	Friday	Thanksgiving Holidays

Total Number of Teaching Days.....55

WINTER QUARTER

November	28	Tuesday	Registration
	29	Wednesday	First day of classes
December	8	Friday	Last date for late registration and to drop/add a course
	15	Friday	Last day of classes before Christmas Holidays

January-1973

January	2	Tuesday	First day of classes after Christmas Holidays
	19	Friday	Mid-Quarter Grade Reports due
February	28	Wednesday	End of Winter Quarter

Total Number of Teaching Days.....55

SPRING QUARTER

March	5	Monday	Registration
	6	Tuesday	First day of classes
	15	Thursday	Last date for late registration and to drop/add a course
April	11	Wednesday	Mid-Quarter Grade Reports due
	19	Thursday	Last day of classes before Easter Holidays
	24	Tuesday	First day of classes after Easter Holidays
May	23	Wednesday	End of Spring Quarter
	25	Friday	Graduation for all two-year students
Total Number of Teaching Days.....			55

SUMMER QUARTER

June	4	Monday	Registration
	5	Tuesday	First day of classes
	8	Friday	Last date for late registration and to drop/add a course
July	4	Wednesday	Independence Day Holiday
	5	Thursday	Classes resume after Independence Day Holiday
	12	Thursday	Mid-Quarter Grade Reports due
August	21	Tuesday	End of Summer Quarter
Total Number of Teaching Days.....			55

SPLIT SESSION

First Term

June	4	Monday	Registration
	5	Tuesday	First day of classes
	8	Friday	Last date for late registration and to drop/add a course
July	4	Wednesday	Independence Day Holiday
	5	Thursday	Classes resume after Independence Day Holiday
	12	Thursday	Last day of classes
Total Number of Teaching Days.....			27

Second Term

July	13	Friday	Registration
	16	Monday	First day of classes
	19	Thursday	Last date for late registration and to drop/add a course
August	21	Tuesday	Last day of classes
Total Number of Teaching Days.....			27

CALENDAR 1973-1974

FALL QUARTER

August	31	Friday	Instructor Orientation
September	4,5	Tuesday	Registration
		Wednesday	
	6	Thursday	First day of classes
	14	Friday	Last date for late registration and to drop/add a course
October	11	Thursday	Mid-Quarter Grade Reports due
November	21	Wednesday	End of Fall Quarter
	22	Thursday	Thanksgiving Holidays
	23	Friday	Thanksgiving Holidays
Total Number of Teaching Days.....			55

WINTER QUARTER

November	27	Tuesday	Registration
	28	Wednesday	First day of classes
December	7	Friday	Last date for late registration and to drop/add a course
	18	Tuesday	Last day of classes before Christmas Holidays
January-1974			
January	2	Wednesday	First day of classes after Christmas Holidays
	25	Friday	Mid-Quarter Grade Reports due
February	26	Tuesday	End of Quarter
Total Number of Teaching Days.....			55

SPRING QUARTER

March	4	Monday	Registration
	5	Tuesday	First day of classes
	14	Thursday	Last date for late registration and to drop/add a course
April	10	Wednesday	Mid-Quarter Grade Reports due
	11	Thursday	Last day of classes before Easter Holidays
	16	Tuesday	First day of classes after Easter Holidays
May	22	Wednesday	End of Spring Quarter
	24	Friday	Graduation for all two-year students
Total Number of Teaching Days.....			55

SUMMER QUARTER

June	3	Monday	Registration
	4	Tuesday	First day of classes
	7	Friday	Last date for late registration and to drop/add a course
July	4	Thursday	Independence Day Holiday
	5	Friday	Classes resume after Independence Day Holiday
	11	Thursday	Mid-Quarter Grade Reports due
August	20	Tuesday	End of Summer Quarter
Total Number of Teaching Days.....			55

SPLIT SESSION

First Term

June	3	Monday	Registration
	4	Tuesday	First day of classes
	7	Friday	Last date for late registration and to drop/add a course
July	4	Thursday	Independence Day Holiday
	5	Friday	Classes resume after Independence Day Holiday
	11	Thursday	Last day of classes
Total Number of Teaching Days.....			27

Second Term

July	12	Friday	Registration
	15	Monday	First day of classes
	18	Thursday	Last date for late registration and to drop/add a course
August	20	Tuesday	Last day of classes
Total Number of Teaching Days.....			27

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 and 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 and 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
	1	Tuesday	First day of classes after Easter Holidays
April	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 and 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 and 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 and to drop/add a course
August	26	Tuesday	End of second term

Total Number of Teaching Days.....27

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M. S.-North Carolina State University
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A. B.-East Carolina University
M. A.-East Carolina University
Advanced Work-North Carolina State University

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 B. S.-North Carolina State University
 Certificate in School Administration-University of N. C., Chapel Hill
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 Advanced Work-North Carolina State University
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 M. A.-East Carolina University
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 A. B.-Atlantic Christian College
 M. A.-East Carolina University
 Advanced Work-Duke University

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 Guy C Langston, Area Consultant, Law Enforcement Training

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 M. A.-East Carolina University
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 A. B.-Atlantic Christian College
 M. A.-East Carolina University
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 B. S.-East Carolina University
 M. A.-East Carolina University
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 Attended Lenoir Community College
- Morris H. Bray Farriering
 Diploma-Pitt Technical Institute
- Mrs. Jacquelyn P. Briley Math, Physics
 B. A.-U. N. C. at Greensboro
 M. A.-East Carolina University
 Advanced Work-East Carolina University
- Mrs. Jean C. Brown English
 B. S.-East Carolina University
 M. A.-East Carolina University
 Advanced Work-East Carolina University
- Mrs. Marion S. Bunting..... Math, Physics
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 Advanced Work-East Carolina University
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 Advanced Work-East Carolina University
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 B. S.-East Carolina University

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 M. A.-East Carolina University
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 B. S.-East Carolina University
 M. S.-East Carolina University
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 Advanced Work-East Carolina University
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 B. S.-East Carolina University
- Miss E. Elaine Flippin.....Business Education
 B. S.-Appalachian State University
 M. S.-Appalachian State University
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 B. S. B. A.-East Carolina University
 Advanced Work-East Carolina University
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 B. A.-West Virginia University
 M. S.-West Virginia University
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 New Bern High School
 U. S. Naval Apprentice School
 Advanced Work-Lenoir Community College
- Henry M. Geddy, JrSpeech Therapy
 B. S.-East Carolina University
 M. A.-East Carolina University
- Darrell Gene Hemby.....Machinist
 Diploma-Lenoir Community College
 Advanced Work-East Carolina University
- James N. Hoover Electronics
 B. S. E. E.-North Carolina State University
 Advanced Work-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
- Mrs. Janice Leggett..... Practical Nurse Education
B. S.-Northeast Missouri State College
- Mrs. JoAnn B. LeithBusiness Education
B. S.-East Carolina University
M. A.-East Carolina University
- Max T. McClanahan.....Architectural Drafting
B. S.-Clemson University
- Dwight B. McGowanAuto 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
- 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
- William H. MooreAgricultural Business
B. S. A.-University of Georgia
M. Ed.-University of Georgia
M. S.-Ohio State University
- Dean E. PainterAir-Water Resources
B. S.-Oregon State University
M. S.-Trinity University, San Antonio, Texas
- Sankey R. Painter..... Electronic Data Processing
B. S.-Wake Forest University
M. A.-Wake Forest University

- Mrs. Doris H. Phelps Librarian
 B. S.-East Carolina University
 M. A.-East Carolina University
- Sidney M. Posey Farmville Adult Education Center
 Associate in Agricultural Business-Pitt Technical Institute
- Roland A. SmithAuto Mechanics
 Professional Certificate-Gaston College
 B. S.-East Carolina University
- James A. Tripp Masonry
 Diploma-Pitt Technical Institute
- Jarvis E. Tripp Electrical Installation & Maintenance
 Belvoir-Falkland High School
- Robert M. Turner Mechanical Drafting
 Certificate-Newport News Ship Building & Dry Dock Apprentice School
 B. S.-North Carolina State University
- J. Leonard Veillette Commercial Art
 B. F. A -East Carolina University
 Advanced Work-East Carolina University
- J. M. Whitehurst Electronics, Math, Physics
 A. B.-East Carolina University
 Advanced Work-East Carolina University
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 Cape Fear Technical Institute
- Philip Leon Clark Mental Health
 B.A.-University of Michigan
 M.S.W.-Michigan State University
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 B.S.-East Carolina University
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 B.S.B.A.-East Carolina University
 Advanced Work-East Carolina University
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 B.A.-Winston-Salem State University
 Advanced Work-East Carolina University

PART TIME CURRICULUM FACULTY

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 A. B.-Fairmont State College, West Virginia
 M. Ed.-Miami University, Oxford, Ohio
 Ed. D.-N. C. State University
- Mrs. Maria Barraza.....Mathematics
 B. S.-Hunter College, New York
- Mrs. Sue W. Davis Data Processing
 L. A.-Tusculum College, Greenville, Tennessee
 B. A.-American University, Washington, D. C.
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 B. S.-Appalachian State University
 M. A.-Appalachian State University
 Advanced Work-Texas A & M University
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 B. S.-University of Missouri
 M. A.-University of Georgia
- Mrs. Barbara B. WilsonBusiness Education
 B. S.-East Carolina University
 M. A.-East Carolina University

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- Mrs. Rena Jones Home Nursing
 R. N.
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 B. S.-Nursing
- Mrs. Thelma Whitehurst Language Arts
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- Steven Van HigsonFurniture Repair
- Roy S. WarrenWoodworking

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Mrs. Elizabeth Dudley	Office of the President
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Mrs. Jewell Moore	Guidance and Financial Aid
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Mrs. Judy Smith	Director of Extension
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Mrs. Joyce Williams	Area Consultants

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Mr. Earl Keel	Security Officer
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Miss Janice Wilson	Clerical Assistant, Bookkeeping Office

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Mr. James Daniels.....	Custodian
Mr. Charlie G. Forlines	Plant Operation & Maintenance Supervisor
Mr. David O. Forlines.....	Grounds Keeper
Mr. Walter Gatlin.....	Custodian
Mrs. Ada Mae Sasser.....	Maid
Mr. Walter Speight.....	Custodian
Mr. Bennie E. Strong	Custodian
Mr. Ernest Lee White.....	Custodian



**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 new classroom 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
Mental Health Technology
Police Science
Accounting
Business Administration
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

CERTIFICATE PROGRAMS

Cosmetology
Farriering
Masonry

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 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:

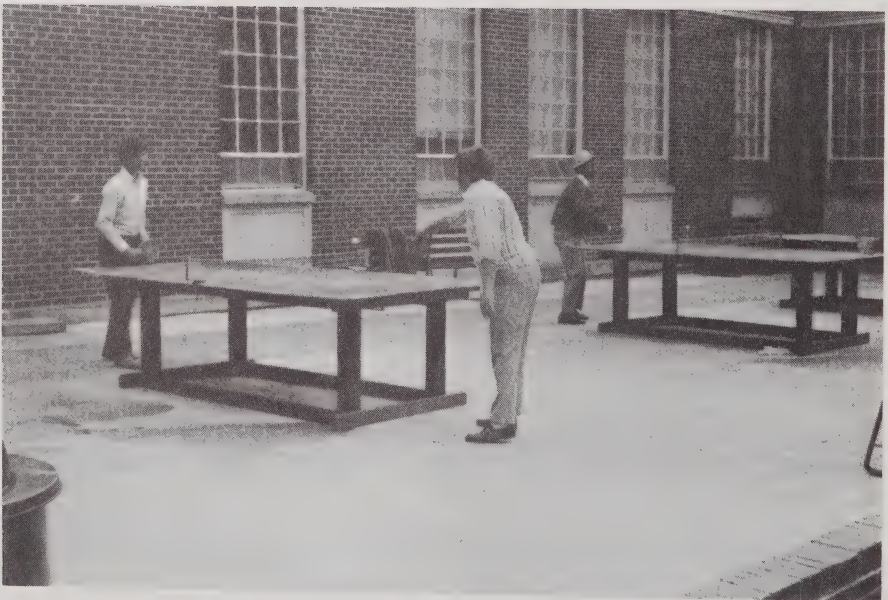
- (1) Formal application is submitted.
- (2) Transcript of college or technical institute credit is furnished by all previously attended institutions.
- (3) Student is in good standing with former institution.
- (4) Passing grades will be considered for acceptance.
- (5) A completed health questionnaire 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 or grades 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 Practical Nurse Education program 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 Practical Nurse Education Program.



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 *thirteen* (13) or *more* credit hours are charged a maximum of \$32.00 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.

OUT-OF-STATE STUDENTS

Entrance requirements and admission procedures for persons who reside outside the State of North Carolina are the same as for residents. Beginning September 1, 1972, the tuition for non-residents will be \$137.50 per quarter for full-time enrollment.

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. This 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 usually payable at registration during the Spring Quarter. The fee is required prior to graduation but the student should know that he is eligible to graduate before paying. It is not refundable. Those graduating other than at the Spring Graduation Exercises and who will not wear caps 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. Part-time students may elect to pay the Student Activity Fee and enjoy its many benefits.

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, and special fees such as for late registration.

In all refund cases, the student must initiate his withdrawal through the Registrar's 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.

GRADUATION REQUIREMENTS

CERTIFICATE, DIPLOMA OR DEGREE

Upon the recommendation of the faculty and the approval of the Board of Trustees the appropriate certificate, diploma, or the Associate in Applied Science degree will be awarded to the student who has successfully completed the required curriculum in which he is enrolled. A maximum of 60 credit hours may be transferred from institutions outside the North Carolina Community College System. The fourth or sixth quarter must be completed at Pitt Technical Institute. A student must have a 2.0 grade point average in order to graduate.

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
Z	Credit by Proficiency	0
T	Transfer Credit	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 grade or 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 Director of Student Personnel.

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 13 quarter-hour load is considered a full-time student. The normal load is 15 to 18 hours.

Students who are employed for 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 will 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.

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 would 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.

Students cannot officially withdraw from a course after the seventh week, except in emergency situations.

TRANSCRIPTS

Students may obtain two transcripts free of charge upon completion of a program or upon application for employment. Additional transcripts will be made at a cost of \$1.00 per copy.

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 Registrar's Office;
2. Have advisor sign it;
3. Have instructor(s) involved initial 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.

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.

STUDENT CLASSIFICATION

Freshman	A student who has earned fewer than 54 quarter hours of credit.
Sophomore	A student who has earned more than 54 quarter hours of credit.
Full-time Student	A student who is registered for thirteen (13) or more quarter hours.*
Part-time Student	A student who is registered for 12 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.

* Does not include veterans; only 12 quarter hours required.

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.**

STUDENT PERSONNEL SERVICES

COUNSELING SERVICES

The Student Personnel Services include counseling services provided by trained personnel. These services are available to every full-time or part-time curriculum student from pre-admission through graduation including transfer and placement. There is no cost for these services.

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

Students may come to the counselor's office at any time when a personal problem arises 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 Institute provides vending machines that dispense sandwiches, cakes, candies, soft drinks, and other sundries. No cafeteria is maintained on campus.

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: Business Office 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:** Curriculum (area of study) welcome and 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 Student Personnel Director. 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.

STUDENT PUBLICATIONS

Pitt Technical Institute publishes the following periodicals:

- A. Institute Annual
- B. Student Handbook
- C. 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.

FINANCIAL AID

THE NATIONAL DEFENSE STUDENT LOAN PROGRAM

PURPOSE: "To identify and educate more of the talent of our Nation" and "to insure trained manpower of sufficient quality and quantity to meet the National Defense needs of the United states."

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 Defense Student Loan terminates his education at Pitt Technical Institute, he must contact the Business Manager for an *exit interview* in which arrangements will be made for repayment of the loan.

THE EDUCATIONAL 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 education at all. Grants ranging from \$200 to \$800 are made to students for each of the two years of study.

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

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.

THE COLLEGE WORK-STUDY PROGRAM

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.

Students may work as many as 15 hours per week while in school and up to 40 hours per week, during vacations, summers, or other periods when classes are not in session.

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 full-time 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

Students in the Law Enforcement Technology curriculum may be eligible for either outright grants or loans to cover the cost of their training and other allied costs. Preference is given to students actually serving as Law Enforcement Officers. Loans are discounted at the rate of 25% a year for students who upon graduation become Law Officers.

SCHOLARSHIPS

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

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 \$1,500 during any academic year, \$750 per semester, or \$500 per quarter. Students in good standing may reapply each year funds are needed but may borrow no more than \$7,500 during their educational program.

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 ½% 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 120 months. 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. Requests 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 by the Foundation no later than **May 15**. Applications received after the deadlines will be processed for the remaining academic terms as time and funds allow.

JAMES E. & MARY Z. BRYAN FOUNDATION, INC. 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.

VETERANS ADMINISTRATION

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 of up to \$130 per month can be made to students under the program. For further information, see or write your nearest Veterans Administration office.

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 the exact curriculum listed in the school catalog; must provide the Veterans Administration with the exact records of attendance; and must maintain satisfactory academic progress, attendance, and conduct for continuing eligibility for payments.

V. A. payments are based on credit hours per quarter.

Technical Programs

Credit Hours

- 12--Full Time
- 9-11-- $\frac{3}{4}$ Time
- 6- 8-- $\frac{1}{2}$ Time
- 4- 5--Less than $\frac{1}{2}$ Time
- 1- 3-- $\frac{1}{4}$ Time or Less

Vocational Programs

Contact Hours

- 30--Full-Time
- 22-- $\frac{3}{4}$ Time
- 15-- $\frac{1}{2}$ Time

SOCIAL SECURITY BENEFITS FOR STUDENTS

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.

BURROUGHS-WELLCOME COMPANY LOAN FUND

Pitt Technical Institute administers a loan fund which is supported by the Burrough-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. The responsibility of administering these loans rests with the Student Financial Aid Office.

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.

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 student 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 an 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.



SPECIAL SERVICES

LIBRARY RESOURCE CENTER

A spacious new 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 this 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.

WHEN?

The center is open Monday through Thursday, from 8:30-5:00 and 7:00-10:00, and on Friday from 8:30-3:00. You may apply at any time during these hours, and may study at any time.

WHERE?

Pitt Technical Institute is located on Highway 11 south of Greenville, North Carolina. Phone 756-3130.

ADMISSION?

Anyone age 18 years or older who is not presently enrolled in a secondary school may enroll in the center at no charge. (High School students may enroll with the principal's written permission.)

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 center is 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 own 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.



IBM

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**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 1972-1974 school years are as follows:

- Agricultural and Environmental Sciences
 - Agriculture Business
 - Agriculture Chemicals
 - Air and Water Resources Technology
- Architectural Drafting
- Commerical Art and Graphic Design
- Electronic Data Processing-Business
- Electronics Technology
- Mental Health Technology
- Police Science
- Accounting
- Business Administration
- Secretarial Science
- Veterans Farm Cooperative Program

AGRICULTURAL AND ENVIRONMENTAL SCIENCES

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 non-farm 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 & ENVIRONMENTAL SCIENCES
AGRICULTURAL BUSINESS TECHNOLOGY**

SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
FIRST QUARTER				
ENG 101	Grammar	3	0	3
MAT 107	Applied Mathematics	5	0	5
CHM 101	Chemistry (Refresher)	4	2	5
AGR 125	Animal Science	3	2	4
ENV 101	Environmental Orientation	2	2	3
		<u>17</u>	<u>6</u>	<u>20</u>
** Guided Studies				
ENG 010	Communications I	10	0	10
CHM 010	Chemistry	3	2	4
MAT 010	Basic Mathematics	5	0	5
* AGR 218	Agricultural Mechanization	3	2	4
* BUS 232	Sales Development	3	0	3
ENV 010	Basic Ecology	3	2	4
		<u>27</u>	<u>6</u>	<u>30</u>
SECOND QUARTER				
ENG 102	Composition	3	0	3
AGR 185	Soil Science	5	2	6
BUS 120	Principles of Accounting	5	2	6
	Business Elective	3	0	3
		<u>16</u>	<u>4</u>	<u>18</u>

**Guided Studies

ENG 011	Communications II	10	0	10
PHY 010	Physics I	3	2	4
MAT 011	Algebra I	5	0	5
BUS 102	Typewriting	2	3	3
*AGR 119	Techniques of Welding	<u>1</u>	<u>3</u>	<u>2</u>
		21	8	24

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>0-4</u>	<u>3-5</u>
		14-16	2-4	15-17

**Guided Studies

ENG 012	Communications III	10	0	10
PHY 011	Physics II	3	2	4
MAT 012	Algebra II	5	0	5
*PSY 102	General Psychology	3	0	3
BUS 110	Office Machines	<u>3</u>	<u>2</u>	<u>4</u>
		24	4	26

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	Typing	2	3	3
	Business Elective	<u>3</u>	<u>0</u>	<u>3</u>
		17	7	20

FIFTH QUARTER

AGR 119	Techniques of Welding	1	3	2
AGR 204	Agricultural Economics & Farm Records	3	2	4
AGR 187	Fertilizer & Lime	3	2	4
AGR 245	Crop Insects	3	2	4
	Social Science Elective	<u>3</u>	<u>0</u>	<u>3</u>
		13	9	17

SIXTH QUARTER

AGR 203	Pesticide & Fertilizer Application	3	2	4
AGR 247	Pesticides Use & Control	2	2	3
BUS 110	Office Machines	3	2	4
AGR 228	Plant & Animal Diseases	3	2	4
	Social Science Elective	<u>3</u>	<u>0</u>	<u>3</u>
		14	8	18

TOTAL QUARTER HOURS IN COURSES 108-110

*This course carries full graduation credit for this particular curriculum.

**See Page 143 for description of the Guided Studies Program.

AGRICULTURAL AND ENVIRONMENTAL SCIENCES

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 will prepare a graduate with a sound, well rounded background that offers to industry a semiprofessional employee who, with normal on-the-job orientation, can actively execute the many technical 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 & ENVIRONMENTAL SCIENCES
AGRICULTURAL CHEMICALS TECHNOLOGY**

SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
FIRST QUARTER				
ENG 101	Grammar	3	0	3
MAT 107	Applied Mathematics	5	0	5
CHM 101	Chemistry (Refresher)	4	2	5
AGR 125	Animal Science	3	2	4
ENV 101	Environmental Orientation	2	2	3
		<u>17</u>	<u>6</u>	<u>20</u>

****Guided Studies**

ENG 010	Communications I	10	0	10
CHM 010	Chemistry	3	2	4
MAT 010	Basic Mathematics	5	0	5
* AGR 218	Agricultural Mechanization	3	2	4
* BUS 232	Sales Development	3	0	3
ENV 010	Basic Ecology	3	2	4
		<u>27</u>	<u>6</u>	<u>30</u>

SECOND QUARTER

ENG 102	Composition	3	0	3
AGR 185	Soil Science	5	2	6
BUS 120	Principles of Accounting	5	2	6
CHM 105	Chemistry I	4	2	5
		<u>17</u>	<u>6</u>	<u>20</u>

**Guided Studies

ENG 011	Communications II	10	0	10
PHY 010	Physics I	3	2	4
MAT 011	Algebra I	5	0	5
BUS 102	Typewriting	2	3	3
*AGR 119	Techniques of Welding	1	3	2
		<u>21</u>	<u>8</u>	<u>24</u>

THIRD QUARTER

ENG 204	Oral Communications	3	0	3
ENV 112	Air Resources Management	3	2	4
EDP 104	Introduction to Data Processing	3	0	3
AGR 170	Plant Science	5	2	6
BUS 102	Typing	2	3	3
		<u>16</u>	<u>7</u>	<u>19</u>

**Guided Studies

ENG 012	Communications III	10	0	10
PHY 011	Physics II	3	2	4
MAT 012	Algebra II	5	0	5
*PSY 102	General Psychology	3	0	3
BUS 110	Office Machines	3	2	4
		<u>24</u>	<u>4</u>	<u>26</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
ENV 204	Water Sampling & Analysis	2	4	4
		<u>14</u>	<u>8</u>	<u>18</u>

FIFTH QUARTER

AGR 119	Techniques of Welding	1	3	2
AGR 204	Agricultural Economics & Farm Records	3	2	4
AGR 187	Fertilizer & Lime	3	2	4
AGR 245	Crop Insects	3	2	4
	Social Science Elective	3	0	3
		<u>13</u>	<u>9</u>	<u>17</u>

SIXTH QUARTER

AGR 203	Pesticide & Fertilizer Application	3	2	4
AGR 247	Pesticides Use & Control	2	2	3
BUS 110	Office Machines	3	2	4
AGR 228	Plant & Animal Diseases	3	2	4
	Social Science Elective	3	0	3
		<u>14</u>	<u>8</u>	<u>18</u>

TOTAL QUARTER HOURS IN COURSES 112

*This course carries full graduation credit for this particular curriculum.

**See Page 143 for description of the Guided Studies Program.

AGRICULTURAL AND ENVIRONMENTAL SCIENCES 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 as it is established.

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 and Economic Resources, Water & Air Resources Division, and 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.

**AGRICULTURAL AND ENVIRONMENTAL SCIENCES
AIR & WATER RESOURCES TECHNOLOGY**

SUGGESTED CURRICULUM BY QUARTERS

	Course Title	C	L	CH
FIRST QUARTER				
ENG 101	Grammar	3	0	3
MAT 107	Applied Math	5	0	5
CHM 101	Chemistry (Refresher)	4	2	5
AGR 125	Animal Science	3	2	4
ENV 101	Environmental Orientation	2	2	3
		<u>17</u>	<u>6</u>	<u>20</u>
**Guided Studies				
ENG 010	Communications I	10	0	10
CHM 010	Chemistry	3	2	4
MAT 010	Basic Mathematics	5	0	5
*AGR 218	Agricultural Mechanization	3	2	4
*BUS 232	Sales Development	3	0	3
ENV 010	Basic Ecology	3	2	4
		<u>27</u>	<u>6</u>	<u>30</u>
SECOND QUARTER				
ENG 102	Composition	3	0	3
MAT 101	Technical Mathematics	5	0	5
CHM 105	Chemistry I	4	2	5
ENV 103	Water Resources Management	3	2	4
		<u>15</u>	<u>4</u>	<u>17</u>
**Guided Studies				
ENG 011	Communications II	10	0	10
PHY 010	Physics I	3	2	4
MAT 011	Algebra I	5	0	5
BUS 102	Typewriting	2	3	3
*AGR 119	Techniques of Welding	1	3	2
		<u>21</u>	<u>8</u>	<u>24</u>
THIRD QUARTER				
ENG 204	Oral Communications	3	0	3
EDP 104	Introduction to Data Processing	3	0	3
PHY 101	Technical Physics	3	2	4
ENV 104	Environmental Biology	3	3	4
ENV 112	Air Resources Management	3	2	4
		<u>15</u>	<u>7</u>	<u>18</u>

** Guided Studies				
ENG 012	Communications III	10	0	10
PHY 011	Physics II	3	2	4
MAT 012	Algebra II	5	0	5
*PSY 102	General Psychology	3	0	3
BUS 117	Office Machines	3	2	4
		<u>24</u>	<u>4</u>	<u>26</u>

Summer Quarter (Optional)

ENV 195	Environmental Practicum	0	40	13
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FOURTH QUARTER

ENG 103	Report Writing	3	0	3
PHY 102	Technical Physics	3	2	4
ENV 217	Waste Water Treatment	3	2	4
ENV 204	Water Sampling & Analysis	2	4	4
ENV 212	Air Pollution Control & Sources	3	3	4
		<u>14</u>	<u>11</u>	<u>19</u>

FIFTH QUARTER

ENV 205	Waste Water Sampling & Analysis	2	6	5
ENV 226	Atmospheric Air Sampling & Analysis	2	6	5
ELC 101	Fundamentals of Electricity	4	4	6
	Social Science Elective	3	0	3
		<u>11</u>	<u>18</u>	<u>19</u>

SIXTH QUARTER

AGR 247	Pesticides Use & Control	2	2	3
AGR 185	Soil Science	3	2	4
ENV 236	Air Pollution Source & Sampling	2	6	5
	Analysis			
ENV 206	Industrial Waste Water Field	3	3	4
	Sampling			
	Social Science Elective	3	0	3
		<u>13</u>	<u>13</u>	<u>19</u>

TOTAL QUARTER HOURS IN COURSES 112-125

*This course carries full graduation credit for this particular curriculum.

**See Page 143 for description of the Guided Studies Program.

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 are 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 would 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 building. 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 on their own aspirations and willingness to study and work. Their education would just begin with this curriculum.

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 SUGGESTED CURRICULUM BY QUARTERS

Course Title	C	L	CH
FIRST QUARTER			
ENG 101 Grammar	3	0	3
MAT 101 Technical Mathematics	5	0	5
PHY 101 Technical Physics	3	2	4
ARC 106 Architectural Drafting	2	6	4
CIV 105 Architectural Materials & Methods	3	3	4
	<u>16</u>	<u>11</u>	<u>20</u>
**Guided Studies			
ENG 010 Communications I	10	0	10
MAT 010 Basic Mathematics	5	0	5
*ARC 106 Architectural Drafting	2	6	4
	<u>17</u>	<u>6</u>	<u>19</u>
SECOND QUARTER			
ENG 102 Composition	3	0	3
MAT 102 Technical Mathematics	5	0	5
PHY 102 Technical Physics	3	2	4
ARC 107 Architectural Drafting	2	6	4
AHR 106 Architectural Mechanical Equipment	3	3	4
	<u>16</u>	<u>11</u>	<u>20</u>

**Guided Studies					
ENG 011	Communications II	10	0	10	
MAT 011	Algebra I	5	0	5	
PHY 010	Physics I	3	2	4	
*ARC 107	Architectural Drafting	2	6	4	
		<u>20</u>	<u>8</u>	<u>23</u>	

THIRD QUARTER

ENG 204	Oral Communications	3	0	3
MAT 103	Technical Mathematics	5	0	5
PHY 103	Technical Physics	3	2	4
ARC 108	Architectural Drafting	0	9	3
CIV 114	Statics	5	0	5
		<u>16</u>	<u>11</u>	<u>20</u>

**Guided Studies

ENG 012	Communications III	10	0	10
MAT 012	Algebra II	5	0	5
PHY 011	Physics II	3	2	4
*ARC 108	Architectural Drafting	0	9	3
		<u>18</u>	<u>11</u>	<u>22</u>

FOURTH QUARTER

ENG 103	Report Writing	3	0	3
CIV 216	Strength of Materials	3	2	4
ARC 220	Architectural Drafting	2	9	5
CIV 101	Surveying	2	6	4
		<u>10</u>	<u>17</u>	<u>16</u>

FIFTH QUARTER

ARC 221	Architectural Drafting	2	9	5
ARC 233	Office Practice Seminar	2	0	2
DFT 235	Codes, Specifications, & Contract Documents	3	3	4
	Social Science Elective	3	0	3
	Architectural Drafting Elective	0	0	3
		<u>10</u>	<u>12</u>	<u>17</u>

SIXTH QUARTER

ARC 222	Architectural Drafting	2	9	5
DFT 236	Construction Estimating & Field	3	3	4
	Inspecting			
	Social Science Elective	3	0	3
	Architectural Drafting Elective	0	0	3
		<u>8</u>	<u>12</u>	<u>15</u>

TOTAL QUARTER HOURS IN COURSES 108



*This course carries full graduation credit for this particular curriculum.

**See Page 143 for description of the Guided Studies Program.

COMMERCIAL ART AND 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 Commercial Artistry.

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, newspaper, 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
FIRST QUARTER				
CAT 121	Design I	3	6	6
CAT 102	Drawing	1	4	3
ENG 101	Grammar	3	0	3
DFT 101	Technical Drafting	1	3or 6	2 or 3
MAT 110	Business Math	5	0	5
		<u>13</u>	<u>13 or 16</u>	<u>19 or 20</u>
** Guided Studies				
ENG 010	Communications I	10	0	10
CHM 010	Chemistry	3	2	4
MAT 010	Basic Mathematics	5	0	5
DFT 010	Mechanical Drafting	2	2	3
*CAT 102	Drawing	1	4	3
		<u>21</u>	<u>8</u>	<u>25</u>
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	3 or 6	2 or 3
		<u>11</u>	<u>13 or 16</u>	<u>17 or 18</u>
** Guided Studies				
ENG 011	Communications II	10	0	10
DFT 011	Mechanical Drafting II	2	2	3
*CAT 105	Life Study	1	4	3
*BUS 102	Typewriting	2	3	3
		<u>15</u>	<u>9</u>	<u>19</u>
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 (Oral, Written and Visual)	3	0	4
		<u>11</u>	<u>14</u>	<u>18</u>

**Guided Studies

ENG 012	Communications III	10	0	10
*CAT 106	Life Study	1	4	3
*SOC 102	Principles of Sociology	3	0	3
*PSY 102	General Psychology	3	0	3
		<u>17</u>	<u>4</u>	<u>19</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	Typing			
	or			
BUS 103	Typing	2	3	3
		<u>10</u>	<u>17</u>	<u>18</u>

SIXTH QUARTER

CAT 226	Graphic Design II	3	6	6
PHO 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

108-110

*This course carries full graduation credit for this particular curriculum.

**See Page 143 for description of the Guided Studies Program.

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 and defines systems requirements to develop a program for electronic data processing; conducts detailed analysis 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. Ascertains if other combinations of instruction would achieve greater flexibility, better machine utilization, or more dependable results.

**ELECTRONIC DATA PROCESSING
BUSINESS
SUGGESTED CURRICULUM BY QUARTERS**

	Course Title	C	L	CH
FIRST QUARTER				
EDP 114	Introduction to Computer Concepts	3	0	3
EDP 115	FORTRAN	2	2	3
EDP 100	Data Processing Seminar	0	1	0
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>3</u>	<u>17</u>
**Guided Studies				
ENG 010	Communications I	10	0	10
MAT 010	Basic Mathematics	5	0	5
MAT 110	Business Math	5	0	5
*EDP 114	Introduction to Computer Concepts	3	0	3
		<u>23</u>	<u>0</u>	<u>23</u>
SECOND QUARTER				
EDP 118	Cobol I	2	4	4
BUS 120	Principles of Accounting	5	2	6
ENG 102	Composition	3	0	3
MAT 111	Computer Math	5	0	5
EDP 115A	Independent Study	0	5	0
		<u>15</u>	<u>11</u>	<u>18</u>
**Guided Studies				
ENG 011	Communications II	10	0	10
*MAT 110	Business Math	5	0	5
*PSY 102	General Psychology	3	0	3
*SOC 102	Principles of Sociology	3	0	3
		<u>21</u>	<u>0</u>	<u>21</u>
THIRD QUARTER				
EDP 119	Cobol II	2	4	4
EDP 116	Assembly Language I	2	4	4
BUS 121	Accounting	5	2	6
ENG 204	Oral Communications	3	0	3
EDP 118A	Independent Study	0	5	0
		<u>12</u>	<u>15</u>	<u>17</u>

**Guided Studies

ENG 012	Communications III	10	0	10
*BUS 110	Office Machines	3	2	4
*PSY 102	General Psychology	3	0	3
*SOC 102	Principles of Sociology	3	0	3
		<u>19</u>	<u>2</u>	<u>20</u>

FOURTH QUARTER

EDP 117	Assembly Language II	2	4	4
EDP 211	Applications	2	4	4
EDP 214	Computer Systems	2	2	3
BUS 225	Cost Accounting	3	2	4
BUS 110	Office Machines	3	2	4
EDP 116A	Independent Study	0	5	0
		<u>12</u>	<u>19</u>	<u>19</u>

FIFTH QUARTER

BUS 115	Business Law	3	0	3
EDP 223	RPG I	2	2	3
BUS 235	Business Management	3	0	3
ENG 206	Business Communications	3	0	3
	Social Science Elective	3	0	3
		<u>14</u>	<u>2</u>	<u>15</u>

SIXTH QUARTER

EDP 222	Data Processing Project	1	8	5
EDP 216	Systems & Procedures	3	0	3
EDP 224	RPG II	2	2	3
	Social Science Elective	3	0	3
	Data Processing Elective	3	0	3
		<u>12</u>	<u>10</u>	<u>17</u>

TOTAL QUARTER HOURS IN COURSES 103

*This course carries full graduation credit for this particular curriculum.

**See Page 143 for description of the Guided Studies Program.

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
FIRST QUARTER			
ENG 101 Grammar	3	0	3
MAT 101 Technical Mathematics	5	0	5
PHY 101 Technical Physics	3	2	4
DFT 101 Technical Drafting	1	3-6	2-3
ELC 101 Fundamentals of Electricity I	<u>4</u>	<u>4</u>	<u>6</u>
	16	9-12	20-21
**Guided Studies			
ENG 010 Communications I	10	0	10
CHM 010 Chemistry	3	2	4
MAT 010 Basic Mathematics	5	0	5
*DFT 101 Technical Drafting	<u>1</u>	<u>3</u>	<u>2</u>
	19	5	21
SECOND QUARTER			
ENG 102 Composition	3	0	3
MAT 102 Technical Mathematics		5	0
PHY 102 Technical Physics	3	2	4
DFT 102 Technical Drafting	1	3-6	2-3
ELC 102 Fundamentals of Electricity II	<u>5</u>	<u>4</u>	<u>7</u>
	17	9-12	21-22
**Guided Studies			
ENG 010 Communications II	10	0	10
PHY 010 Physics I	3	2	4
MAT 011 Algebra I	5	0	5
*DFT 102 Technical Drafting	<u>1</u>	<u>3</u>	<u>2</u>
	19	5	21

THIRD QUARTER

ENG 204	Oral Communications	3	0	3
MAT 103	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>

** Guided Studies

ENG 010	Communciations III	10	0	10
PHY 011	Physics II	3	2	4
MAT 012	Algebra II	5	0	5
*PSY 102	General Psychology	3	0	3
		<u>21</u>	<u>2</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	Electronic Systems	5	4	7
	Social Science Elective	3	0	3
		<u>15</u>	<u>11</u>	<u>20</u>

TOTAL QUARTER HOURS IN COURSES 118-120

*This course carries full graduation credit for this particular curriculum.

**See Page 143 for description of the Guided Studies Program.

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:

1. Thorough, planned orientation to the employing agency and to the role of the mental health associate within the agency;
2. Provision for professional supervision;
3. 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 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
FIRST QUARTER				
	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	3	3	4
		<u>16</u>	<u>3</u>	<u>17</u>
** Guided Studies				
	ENG 010 Communications I	10	0	10
*	MHA 111 Introduction to Mental Health	3	3	4
	MAT 010 Basic Mathematics	5	0	5
		<u>18</u>	<u>3</u>	<u>19</u>
SECOND QUARTER				
	ENG 102 Composition	3	0	3
	PSY 120 Human Growth & Development	5	0	5
	MHA 100 Mental Health Orientation	3	3	4
	MHA 112 Group Processes I	1	3	2
	MHA 112P Practicum I	0	6	2
		<u>12</u>	<u>12</u>	<u>16</u>
** Guided Studies				
	ENG 011 Communications II	10	0	10
	PSY 102 General Psychology	3	0	3
	SOC 102 Principles of Sociology	3	0	3
	BUS 102 Typewriting	2	3	3
		<u>18</u>	<u>3</u>	<u>19</u>
THIRD QUARTER				
	ENG 103 Report Writing	3	0	3
	PSY 211 Behavior Disorder I: Theory	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	0	6	2
		<u>15</u>	<u>15</u>	<u>20</u>

** Guided Studies				
ENG 012	Communications III	10	0	10
*SOC 101	Introduction to Sociology	5	0	5
MAT 110	Business Math	5	0	5
		<u>20</u>	<u>0</u>	<u>20</u>
FOURTH QUARTER (SUMMER)				
MHA 115	Field Internship in Community Health	7	33	18
		<u>7</u>	<u>33</u>	<u>18</u>
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 210 P	Practicum III	0	6	2
		<u>10</u>	<u>13</u>	<u>18</u>
SIXTH QUARTER				
	Mental Health Elective	5	0	5
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	0	6	2
		<u>13</u>	<u>12</u>	<u>17</u>
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	0	6	2
		<u>11</u>	<u>6</u>	<u>13</u>
TOTAL QUARTER HOURS IN COURSES		119		

*This course carries full graduation credit for this particular curriculum .

**See Page 143 for description of the Guided Studies Program.

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 in-service 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 to maintain order and enforce 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
FIRST QUARTER				
ENG 101	Grammar	3	0	3
MAT 107	Math for Applied Sciences	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>
**Guided Studies				
ENG 010	Communications I	10	0	10
CHM 010	Chemistry	3	2	4
MAT 010	Basic Mathematics	5	0	5
*PSC 101	Introduction to Law Enforcement	5	0	5
		<u>23</u>	<u>2</u>	<u>24</u>
SECOND QUARTER				
ENG 102	Composition	3	0	3
SOC 102	Principles of Sociology	3	0	3
PSC 102	Introduction to Criminology	5	0	5
POL 102	National Government	3	0	3
PSC 220	Organization & Administration	5	0	5
		<u>19</u>	<u>0</u>	<u>19</u>
**Guided Studies				
ENG 010	Communications II	10	0	10
PHY 010	Physics I	3	2	4
MAT 011	Algebra I	5	0	5
*PSC 112	Motor Vehicle Laws	3	0	3
*PSC 102	National Government	3	0	3
		<u>24</u>	<u>2</u>	<u>25</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
HEA 110	First Aid	2	2	3
PSC 110	Police Role in Crime & Delinquency	5	0	5
PSC 113	Identification Techniques	3	2	4
		<u>19</u>	<u>4</u>	<u>21</u>

**Guided Studies				
ENG 012	Communications III	10	0	10
PHY 011	Physics II	3	2	4
MAT 012	Algebra II	5	0	5
*PSC 113	Identification Techniques	3	2	4
*PSC 220	Organization & Administration	5	0	5
*PSC 103	State & Local Government	3	0	3
*HEA 110	First Aid	2	2	3
		<u>31</u>	<u>6</u>	<u>34</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 115	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		117		

*This course carries full graduation credit for this particular curriculum.

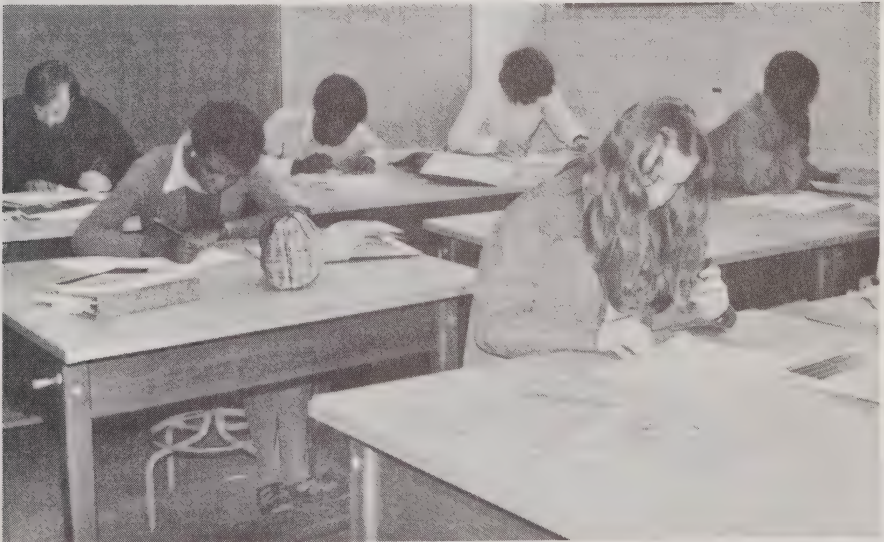
**See Page 143 for description of the Guided Studies Program.

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 these courses taken prior to July 1, 1968 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 aforementioned extension courses after July 1 be asked if they wish to take the course for credit. If the choose to do so, they should be enrolled as part time curriculum students and enrollment should be in the appropriate manner.



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.

**ACCOUNTING
SUGGESTED CURRICULUM BY QUARTERS**

	Course Title	C	L	CH
FIRST QUARTER				
ENG 101	Grammar	3	0	3
BUS 101	Introduction to Business	3	0	3
BUS 102	Typewriting	2	3	3
BUS 102A	Typewriting Lab	0	5	0
	OR			
BUS 103	Typewriting	2	3	3
BUS 103A	Typewriting Lab	0	5	0
ECO 102	Economics	3	0	3
MAT 110	Business Mathematics	5	0	5
		<u>16</u>	<u>8</u>	<u>17</u>
** Guided Studies				
ENG 010	Communications I	10	0	10
MAT 010	Basic Mathematics	5	0	5
*BUS 102	Typewriting	2	3	3
BUS 102A	Typewriting Lab	0	5	0
*BUS 232	Sales Development	3	0	3
		<u>20</u>	<u>8</u>	<u>21</u>
SECOND QUARTER				
ENG 102	Composition	3	0	3
ECO 104	Economics	3	0	3
BUS 115	Business Law	3	0	3
BUS 120	Principles of Accounting	5	2	6
BUS 123	Business Finance	3	0	3
		<u>17</u>	<u>2</u>	<u>18</u>
** Guided Studies				
ENG 011	Communications II	10	0	10
*BUS 134	Personal Grooming	3	0	3
*MAT 110	Business Math	5	0	5
		<u>18</u>	<u>0</u>	<u>18</u>
THIRD QUARTER				
BUS 124	Business Finance	3	0	3
BUS 117	Office Machines	3	2	4
BUS 117A	Office Machines Lab	0	5	0
BUS 116	Business Law	3	0	3
BUS 121	Accounting	5	2	6
ENG 204	Oral Communications	3	0	3
		<u>17</u>	<u>9</u>	<u>19</u>

**Guided Studies				
ENG 010	Communications III	10	0	10
*BUS 117	Office Machines	3	2	4
BUS 117A	Office Machines Lab	0	5	0
*PSY 102	General Psychology	3	0	3
*SOC 102	Principles of Sociology	3	0	3
		<u>19</u>	<u>2</u>	<u>20</u>

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	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
BUS 223	Accounting	5	2	6
BUS 225	Cost Accounting	3	2	4
EDP 223	RPG I	2	2	3
	Social Science Elective	3	0	3
		<u>16</u>	<u>6</u>	<u>19</u>

SIXTH QUARTER

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

TOTAL QUARTER HOURS IN COURSES 106

*This course carries full graduation credit for this particular curriculum.

**See Page 143 for description of the Guided Studies Program.

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 ADMINISTRATION
SUGGESTED CURRICULUM BY QUARTERS**

	Course Title	C	L	CH
FIRST QUARTER				
ENG 101	Grammar	3	0	3
BUS 101	Introduction to Business	3	0	3
BUS 102	Typewriting	2	3	3
BUS 102A	Typewriting Lab OR	0	5	0
BUS 103	Typewriting	2	3	3
BUS 103A	Typewriting Lab	0	5	0
ECO 102	Economics	3	0	3
MAT 110	Business Mathematics	5	0	5
		<u>16</u>	<u>8</u>	<u>17</u>
**Guided Studies				
ENG 010	Communications I	10	0	10
MAT 010	Basic Mathematics	5	0	5
*BUS 102	Typewriting	2	3	3
*BUS 102A	Typewriting Lab	0	5	0
*BUS 232	Sales Development	3	0	3
		<u>20</u>	<u>8</u>	<u>21</u>
SECOND QUARTER				
ENG 102	Composition	3	0	3
ECO 104	Economics	3	0	3
BUS 115	Business Law	3	0	3
BUS 120	Accounting	5	2	6
BUS 123	Business Finance	3	0	3
		<u>17</u>	<u>2</u>	<u>18</u>
**Guided Studies				
ENG 011	Communications II	10	0	10
*BUS 134	Personal Grooming	3	0	3
*MAT 110	Business Math	5	0	5
		<u>18</u>	<u>0</u>	<u>18</u>
THIRD QUARTER				
BUS 117	Office Machines	3	2	4
BUS 117A	Office Machines Lab	0	5	0
BUS 116	Business Law	3	0	3
BUS 121	Accounting	5	2	6
ENG 204	Oral Communications	3	0	3
BUS 124	Business Finance	3	0	3
		<u>17</u>	<u>9</u>	<u>19</u>

**Guided Studies

ENG 012	Communications III	10	0	10
*BUS 117	Office Machines	3	2	4
BUS 117A	Office Machines Lab	0	5	0
*PSY 102	General Psychology	3	0	3
*SOC 102	Principles of Sociology	3	0	3
		<u>19</u>	<u>7</u>	<u>20</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 272	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

*This course carries full graduation credit for this particular curriculum.

**See Page 143 for description of the Guided Studies Program.

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 office.

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 transcribing, 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.

**SECRETARIAL
SUGGESTED CURRICULUM BY QUARTERS**

Course Title	C	L	CH
FIRST QUARTER			
ENG 101S Grammar	5	0	5
BUS 102 Typewriting	2	3	3
BUS 102A Typewriting Lab OR	0	5	0
BUS 103 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>

**** Guided Studies**

ENG 010 Communications I	10	0	10
MAT 010 Basic Mathematics	5	0	5
*BUS 102 Typewriting	2	3	3
BUS 102A Typewriting Lab	0	5	0
BUS 232 Sales Development	3	0	3
	<u>20</u>	<u>8</u>	<u>21</u>

SECOND QUARTER

ENG 102 Composition	3	0	3
BUS 103 Typewriting	2	3	3
BUS 103A Typewriting Lab	0	5	0
BUS 120 Accounting	5	2	6
BUS 106 Shorthand	5	0	5
BUS 106A Shorthand Lab	0	5	0
	<u>15</u>	<u>15</u>	<u>17</u>

Information concerning the Legal & Medical option follows the suggested curriculum by quarters.

**** Guided Studies**

ENG 011 Communications II	10	0	10
*BUS 134 Personal Grooming	3	0	3
*MAT 110 Business Mathematics	5	0	5
	<u>18</u>	<u>0</u>	<u>18</u>

THIRD QUARTER

ENG 204	Oral Communications	3	0	3
BUS 104	Typewriting	2	3	3
BUS 104A	Typewriting Lab	0	5	0
BUS 107	Shorthand	5	0	5
BUS 107A	Shorthand Lab	0	5	0
ECO 108	Personal Finance	3	0	3
BUS 117	Office Machines	3	2	4
BUS 117A	Office Machines Lab	0	5	0
		<u>16</u>	<u>20</u>	<u>18</u>

**Guided Studies

ENG 012	Communications III	10	0	10
*BUS 117	Office Machines	3	2	4
*BUS 117A	Office Machines Lab	0	5	0
*PSY 102	General Psychology	3	0	3
*SOC 102	Principles of Sociology	3	0	3
		<u>19</u>	<u>7</u>	<u>20</u>

FOURTH QUARTER

ENG 206	Business Communication	3	0	3
BUS 205	Advanced Typewriting	2	3	3
BUS 205A	Advanced Typewriting Lab	0	5	0
BUS 108	Shorthand	5	0	5
BUS 108A	Shorthand Lab	0	5	0
BUS 206A	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
BIS 206A	Shorthand Lab	0	5	0
BUS 214	Secretarial Procedures	5	0	5
EDP 104	Introduction to Data Processing	3	0	3
BUS 258	Speed Typing	2	3	3
BUS 258A	Speed Typing Lab	0	5	0
	Social Science Elective	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

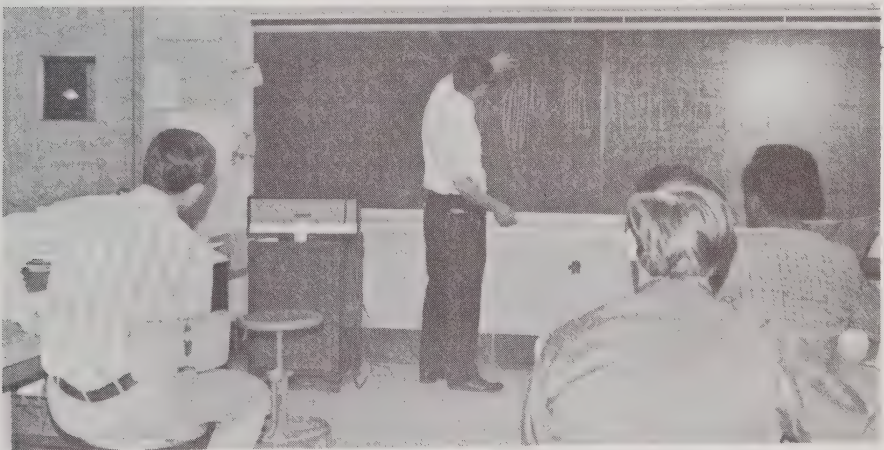
Students having an interest in either the Legal or Medical fields have the option to specialize. To earn an Associate Degree in either area, students are required to take additional courses as follows:

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



*This course carries full graduation credit for this particular curriculum.

**See Page 143 for description of the Guided Studies Program.

**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 PROGRAM
AGRICULTURAL SCIENCE AND MECHANIZATION
SUGGESTED CURRICULUM BY QUARTERS**

	Course Title	C	L	CH
FIRST QUARTER				
AGR 215	Farm Machinery, Repair, & Maintenance	3	4	5
AGR 205	Agricultural Marketing	<u>3</u>	<u>2</u>	<u>4</u>
		6	6	9

SECOND QUARTER

AGR 185	Soil Science & Fertilizers	5	2	6
AGR 107	Farm Records & Taxes	<u>3</u>	<u>2</u>	<u>4</u>
		8	4	10

THIRD QUARTER

AGR 119	Techniques of Welding	1	6	3
AGR 127	Animal Nutrition	<u>3</u>	<u>2</u>	<u>4</u>
		4	8	7

FOURTH QUARTER (SUMMER)

AGR 222	Farm Electrification	3	2	4
AGR 222A	Farm Electrification Lab	<u>0</u>	<u>7</u>	<u>0</u>
		3	9	4

FIFTH QUARTER

AGR 228	Animal Diseases & Parasites	3	2	4
AGR 278	Weed Identification & Control	3	2	4
AGR 136	Agricultural Math	<u>2</u>	<u>0</u>	<u>2</u>
		8	4	10

SIXTH QUARTER

AGR 204	Farm Business Management	3	2	4
AGR 245	Crop Insects	3	2	4
AGR 135	Agricultural Law	<u>2</u>	<u>0</u>	<u>2</u>
		8	4	10

SEVENTH QUARTER

AGR 218	Agricultural Mechanization	3	2	4
AGR 155	Plant Pathology	3	2	4
AGR 126	Farm Forest Management	<u>2</u>	<u>0</u>	<u>2</u>
		8	4	10

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	<u>0</u>	<u>7</u>	<u>0</u>
		5	7	5

NINTH QUARTER

AGR 143	New Sources of Farm Income	3	0	3
AGR 103	Feeding & Management	2	0	2
AGR 290	Soil & Water Conservation	3	4	5
		<u>8</u>	<u>4</u>	<u>10</u>

TENTH QUARTER

AGR 201	Agricultural Chemicals (Pesticides)	5	2	6
AGR 187	Fertilizers & Lime	3	2	4
		<u>8</u>	<u>4</u>	<u>10</u>

ELEVENTH QUARTER

AGR 128	Farm & Home Construction	2	8	6
AGR 121	Crop Production	2	0	2
		<u>4</u>	<u>8</u>	<u>8</u>

TWELFTH QUARTER (SUMMER)

AGR 272	Tobacco Production	3	2	4
AGR 272A	Tobacco Production Lab	0	7	0
		<u>3</u>	<u>9</u>	<u>4</u>

The following additional General Education 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

TOTAL QUARTER HOURS
IN COURSES FOR DIPLOMA PROGRAM 97

TOTAL QUARTER HOURS
IN COURSES FOR ASSOCIATE DEGREE PROGRAM 115

**POLICE SCIENCE
INSERVICE OFFICER**

In addition to the regular curriculum, the Police Science Department is offering the degree program on a rotating schedule, designed to coincide with the inservice officer's work schedule. The courses are 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 schooling; 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**

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 and Local Government	3	0	3
PSC 110 Police Role in Crime & Delinquency	5	0	5
	<u>11</u>	<u>0</u>	<u>11</u>

FOURTH QUARTER

MAT 107	Math for Applied Science	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	5	0	5
PSC 220	Organization & Administration	<u>5</u>	<u>0</u>	<u>5</u>
		10	0	10

SIXTH QUARTER

PSC 221	Police Supervision	3	0	3
HEA 110	First Aid	2	2	3
PSC 113	Identification Techniques	<u>3</u>	<u>2</u>	<u>4</u>
		8	4	10

SEVENTH QUARTER

PSC 202	Police Community Relations	2	0	2
PSC 115	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	<u>3</u>	<u>0</u>	<u>3</u>
		9	2	10

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	<u>2</u>	<u>3</u>	<u>3</u>
		9-10	2-5	11-14

TENTH QUARTER

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

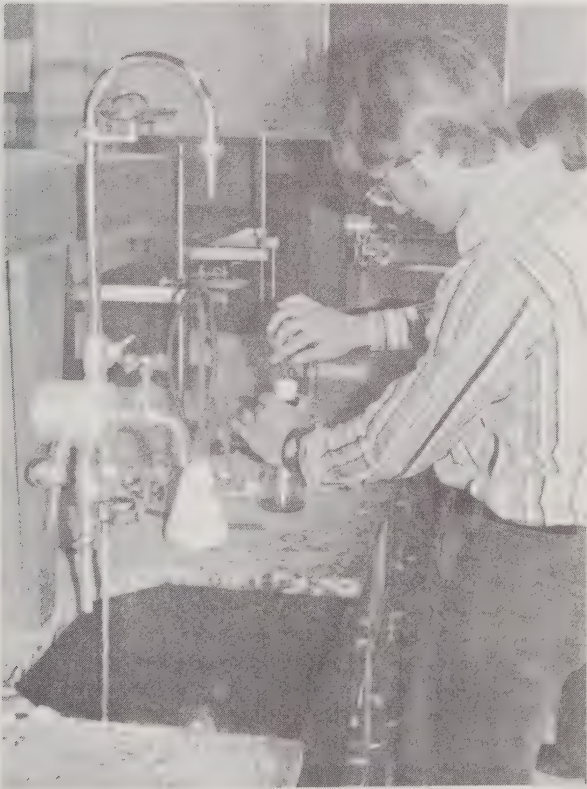
ELEVENTH QUARTER

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 117



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
BASIC COURSES			
CIV 101 Surveying	2	6	4
MAT 101 Technical Math	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

COURSE DESCRIPTIONS

The courses which follow are a complete alphabetical listing of courses offered at Pitt Technical Institute in the Technical Programs.

In the course description, following the course number and title, appears a code which should be interpreted as follows: first number equals number of lecture or classroom hours; second number denotes the number of shop or laboratory hours; third number equals number of credit hours.

AGRICULTURE

	C	L	CH
AGR 100 Agricultural Chemicals Seminar	1	0	1

An introductory course which presents a brief, but broad look into the entire field of agricultural chemicals. 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. The definition, objectives, method of operation, and role of the agricultural chemicals industry as a vital link to the total field of agriculture is presented. All instruction is developed by the conference method allowing maximum student research and individual participation.

Prerequisite: None.

AGR 103 Feeding and Management	2	0	2
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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. Prerequisite: None.

AGR 104 Introduction to Agricultural Economics	3	2	4
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An introduction to economics, the functions of the economic system and agriculture's role in the economy. A review of the functions of the manager and an introduction to the principles he uses in making decisions to adjust to changing conditions. Analysis of the main sources of change which affect agricultural firms. Prerequisite: None.

AGR 105 Pastures and Forage Crops	2	0	2
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A study of the major grasses and legumes of economic importance in North Carolina. Attention will be given to management, soil types, fertilization, harvesting and nutrient value.

AGR 105A Pastures and Forage Crops Lab	0	7	0
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Field application of pastures and forage crop production techniques to accompany classroom instruction.

AGR 107 Farm Records and Taxes	3	2	4
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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.

AGR 119 Techniques of Welding **1** **3-6** **2-3**

Principles of oxyacetylene and electrical welding, cutting, and brazing. Principles, procedures, safety precautions, and experience in using oxyacetylene and arc equipment. Projects are assigned to develop skill in the use of equipment. Includes the study of metals, rods, gases, and special electric welding machinery. Prerequisite: None.

AGR 121 Crop Production **2** **0** **2**

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.

AGR 125 Animal Science **3** **2** **4**

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. Prerequisite: None.

AGR 126 Farm Forest Management **2** **0** **2**

A course dealing with the fundamentals of forestry and farm forestry problems including planting, thinning, harvesting, and marketing.

AGR 127 Animal Nutrition **3** **2** **4**

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.

AGR 128 Farm and Home Construction **2** **8** **6**

This course deals with the fundamentals of farm carpentry, fences, concrete and masonry. Part of the course gives students an opportunity to learn and practice home construction projects such as kitchen cabinets. The study also includes the farm water needs and waste disposal. Attention is given to planning farm water and plumbing systems and their proper care and maintenance.

AGR 135 Agricultural Law **2** **0** **2**

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

AGR 136 Agricultural Math	2	0	2
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.			
AGR 143 New Sources of Farm Income	3	0	3
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, and vegetables for the processing industry.			
AGR 145 Entomology	2	2	3
A study of the major insects of the area, their identification, harmful effects, and life history. Economic damage to crops will be stresses. Prerequisite: None.			
AGR 155 Plant Pathology	3	2	4
A course dealing with the nature and symptoms of diseases in plants; the characteristics of plant diseases, causal agents; cause, identification, and control of the major plant diseases of the area.			
AGR 170 Plant Science	5	2	6
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. Prerequisite: None.			
AGR 180 General Poultry Science I	3	2	4
An introduction to the science of poultry production. The major phases of the study include the history of the poultry industry; the anatomy and physiology of the chicken; the breeds and varieties; the breeding principles; the principles of incubation, brooding, rearing, feeding, housing, and management; marketing, poultry products; and the science of disease and parasite prevention and control.			
AGR 185 Soil Science and Fertilizers	5	2	6
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. Prerequisite: None.			
AGR 187 Fertilizers and Lime	3	2	4
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. Prerequisite: None.			
AGR 201 Agricultural Chemicals	5	2	6
A study of agricultural chemicals--their importance, ingredients, formulation and 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, and 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 206 Agricultural Finance 3 0 3

Analysis of the capital structure of modern commercial agriculture with emphasis upon the sources of credit. A review of lending institutions, repayment schedules, and credit instruments. Practice in the procedure of evaluating farm resources with attention to information needed for resource valuation, appraisal forms and procedures, discounting and depreciation.

AGR 209 Agricultural Prices 3 0 3

An introduction to the functions of prices in our economic system and the effects of changing price levels. The influence consumer demand has on prices through price and income elasticities. A review of the influences of cycles and timing of production along with an examination of the use of future commodity contracts. Application of the principles of price analysis to price control and parity programs. Familiarization with the various tools widely used in historical analysis and forecasting. Prerequisite: AGR 104 or permission of instructor.

AGR 215 Farm Machinery Repair & Maintenance 3 4 5

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 221 Lawn and Garden Equipment	2	2	2
The principles of operation, service, adjustment, and maintenance of equipment for lawn, garden, and landscape.			
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 226 Swine Production	3	2	4
Development of the swine producing and marketing industries; principles and practices of selection, breeding, feeding, housing, marketing, and management of swine. Prerequisite: AGR 125.			
AGR 227 Beef Cattle Production	3	2	4
A study of the principles of selection, breeding, feeding, care, and management of beef cattle. Prerequisite: AGR 125.			
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. Prerequisite: None.			
AGR 247 Pesticides-Use and Control	2	2	3
A study of the use of pesticides, their function, ingredients, beneficial aspects and environmental hazards, stressing safe application and handling. Biological and other alternative methods of pest control will be studied. Prerequisite: None.			
AGR 254 Plant Propagation	2	2	3
A study of basic concepts and principles of sexual and asexual propagation. Techniques are learned through practical exercises conducted in laboratory sessions. Emphasis is given to those propagation methods widely utilized in the industry.			

AGR 255 Ornamental Plant Pathology 3 2 4
 The purpose of this course is to teach the student the control of diseases of ornamental crops through a basic knowledge of structure, life history, and identification of the various parasitic disorders plaguing ornamental trees, shrubs, flowers, and turf.

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 7 0
 Field application of tobacco production techniques to accompany classroom instruction.

AGR 273 Grain Production and Marketing 3 0 3
 A course covering the various phases of grain crop production and marketing with emphasis upon those of economical importance to North Carolina. Prerequisite: AGR 170.

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 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 4 5
 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 and 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.

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.

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. Prerequisite: None.

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 in depth 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, materials 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 223 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.

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. Prerequisite: None.

BUSINESS

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 organization, methods of financing, internal organization, and management. Prerequisite: None.

BUS 102 Beginning Typewriting 2 3 3
 Emphasis is on study of keyboard, the mechanics of the typewriter necessary for the acquisition of elementary typewriting skills, and development of speed and accuracy. Open for beginning typing students only. Prerequisite: None.

BUS 102A Typewriting 0 5 0
 Skill building lab to accompany typewriting class.

BUS 103 Typewriting	2	3	3
Instruction emphasizes the development of speed and accuracy with further mastery of correct typewriting techniques. These skills and techniques are applied in tabulation, manuscript, correspondence, and business forms. Prerequisite: BUS 102 or the equivalent.			
BUS 103A Typewriting Lab	0	5	0
Skill building lab to accompany typewriting class.			
BUS 104 Typewriting	2	3	3
Emphasis on production typing problems and speed building. Attention to the development of the student's ability to function as an expert typist, producing mailable copies. Prerequisite: BUS 103.			
BUS 104A Typewriting Lab	0	5	0
Skill building lab to accompany typewriting class.			
BUS 106 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.			
BUS 106A Shorthand Lab	0	5	0
Dictation practice in shorthand lab to accompany shorthand class.			
BUS 107 Shorthand	5	0	5
Continued study of theory with greater emphasis on dictation and elementary transcription. Prerequisite: BUS 106 or the equivalent.			
BUS 107A Shorthand Lab	0	5	0
Dictation practice in shorthand lab to accompany shorthand class.			
BUS 108 Advanced Shorthand	5	0	5
Review of shorthand principles, daily speed practice, and development of greater dictation and transcription speed. Prerequisite: BUS 107.			
BUS 108A Shorthand Lab	0	5	0
Dictation practice in shorthand lab to accompany shorthand class.			
BUS 110 Office Machines	3	2	4
A general survey of the business and office machines. Students will receive training in techniques, processes, operation and application of the ten key adding machines, full keyboard adding machines, and calculator. Prerequisite: None.			

BUS 110A Office Machines Lab	0	5	0
Skill building lab to accompany office machines class.			
BUS 112 Filing	3	0	3
Fundamentals of indexing and filing, combining theory and practice by the use of miniature letters, filing boxes, and guides. Alphabetic, geographic, subject, and numeric filing. Prerequisite: None.			
BUS 115 Business Law	3	0	3
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. Prerequisite: None.			
BUS 116 Business Law	3	0	3
A continuation of BUS 115. Includes the law of personal property and bailments, sales, insurance, and torts. Prerequisite: BUS 115.			
BUS 117 Office Machines	3	2	4
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. Prerequisite: BUS 102.			
BUS 117A Office Machines Lab	0	5	0
Skill building lab to accompany office machines class.			
BUS 120 Principles of Accounting	5	2	6
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 110.			
BUS 121 Accounting	5	2	6
Partnership and corporation accounting including a study of payrolls, federal and state taxes. Emphasis is placed on the recording, summarizing, and interpreting data for management control rather than on bookkeeping skills. Accounting services are shown as they contribute to the recognition and solution of management problems. Prerequisite: BUS 120.			

BUS 123 Business Finance	3	0	3
Financing of business units, as individuals, partnerships, corporations, and trusts. A detailed study is made of short-term, long-term, and consumer financing. Prerequisite: None.			
BUS 124 Business Finance	3	0	3
Financing, federal, state, and local government, and the ensuing effects upon the economy. Factors affecting supply of funds, monetary, and credit policies. Prerequisite: BUS 123.			
BUS 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 and Vocabulary : Executive	3	0	3
To develop an understanding of the 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 and Vocabulary : Legal	3	0	3
To develop an understanding of the terminology and vocabulary appropriate to the course of study as it is used in business, technical, and professional offices. Prerequisite: BUS 107.			
BUS 183M Terminology and Vocabulary : Medical	3	0	3
To develop an understanding of the 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
This course integrates the necessary skills for transcribing shorthand notes at a typewriter. This course is to be taken concurrently with BUS 108. Prerequisite: BUS 107.			
BUS 205 Advanced Typewriting	2	3	3
Emphasis is placed on the development of individual production rates. The students learn the techniques needed in planning and in typing projects that closely approximate the work appropriate to the field of study. Prerequisite: BUS 104.			
BUS 205 A Advanced Typewriting Lab	0	5	0
Skill building lab to accompany typewriting class.			

BUS 206 Dictation and Transcription	5	0	5
Develops the skills of taking dictation and of transcribing at the typewriter materials appropriate to the course of study, which includes a review of the theory and the dictation of familiar and unfamiliar materials at varying rates of speed. Prerequisite: BUS 108.			
BUS 206A. Shorthand Lab	0	5	0
Dictation practice in shorthand lab to accompany shorthand class.			
BUS 207 Dictation and Transcription	5	0	5
Further development of the skills of taking dictation and transcribing at the typewriter materials appropriate to the course of study, which includes dictation of familiar and unfamiliar material at varying rates of speed and office type dictation. Prerequisite: BUS 206.			
BUS 207A Shorthand Lab	0	5	0
Dictation practice in shorthand lab to accompany shorthand class.			
BUS 208 Dictation and Transcription	5	0	5
Covering materials appropriate to the course of study, the student develops the accuracy, speed and vocabulary that will enable her to meet the stenographic requirements of business and professional offices. Prerequisite: BUS 207.			
BUS 208A Shorthand Lab	0	5	0
Dictation practice in shorthand lab to accompany shorthand class.			
BUS 211 Office Machines	3	2	4
Instructions in the operation of the bookkeeping accounting machine, duplicating equipment, and the dictating and transcribing machines. Prerequisite: BUS 102 or equivalent.			
BUS 211A Office Duplicating Machines Lab	0	5	0
Skill building lab to accompany office machines class.			
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.			
BUS 215 Office Application	4	10	9
The student is assigned to a commercial firm for general office work as required by the cooperating firm. To provide actual work experience and an opportunity for the practical application of the skills and knowledge previously learned. Prerequisite: BUS 214, BUS 205, BUS 117.			

BUS 219 Credit Procedures and Problems	3	0	3
Principles and practices in the extension of credit and the collection of accounts. Federal and state laws pertaining to credit extension and collection are included. Prerequisite: BUS 120.			
BUS 222 Accounting	5	2	6
Thorough treatment of the field of general accounting providing the necessary foundation for specialized studies that follow. The course includes, among other aspects, the balance sheet, income and surplus statements, fundamental processes of recording, cash and temporary investments, and analysis of working capital. Prerequisite: BUS 121.			
BUS 223 Accounting	5	2	6
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.			
BUS 225 Cost Accounting	3	2	4
Nature and purposes of cost accounting; accounting for direct labor, materials, and factory burden; job cost, and standard cost principles and procedures; selling and distribution cost; budgets, and executive use of cost figures. Prerequisite: BUS 121.			
BUS 227 Advanced Accounting	3	2	4
Advanced accounting theory and practice as applied to special accounting problems, bankruptcy proceedings, estates, trusts, parent and subsidiary accounting. Prerequisite: BUS 223.			
BUS 229 Taxes	3	2	4
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 121.			
BUS 232 Sales Development	3	0	3
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. Prerequisite: None.			
BUS 233 Personnel Management	3	0	3
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.			

BUS 235 Business Management	3	0	3
Principles of business management including overview of major functions of management, such as planning, staffing, controlling, directing, and financing. Clarification of the decision making function versus the operating function. Role of management in business-qualifications and requirements.			
BUS 239 Marketing	5	0	5
A general survey of the field of marketing, with a detailed study of the functions, policies, and the institutions involved in the marketing process. Prerequisite: None.			
BUS 243 Advertising	3	2	4
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.			
BUS 247 Business Insurance	3	0	3
A presentation of the basic principles of risk insurance and their application. A survey of the various types of insurance is made.			
BUS 258 Speed Typewriting	2	3	3
Emphasis is placed on improving typing techniques including stroke control, accuracy, forced speed building, and retained speed for long periods of typing straight copy. Prerequisite: BUS 205.			
BUS 258A Speed Typewriting Lab	0	5	0
Skill building lab to accompany typewriting class.			
BUS 269 Auditing	3	2	4
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 placed on detailed audits, internal auditing, and internal control. Prerequisite: BUS 223.			
BUS 271 Office Management	3	0	3
Presents the fundamental principles of office management. Emphasis on the role of office management including its functions, office automation, planning, controlling, organizing and actuating office problems.			
BUS 272 Principles of Supervision	3	0	3
Introduces the 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 are stressed.			

BUS 284M Terminology and Vocabulary 3 0 3
Greater emphasis on an understanding of the terminology and vocabulary appropriate to the course of study, as it is used in business, technical, and professional 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 electrochemistry, electrolytes, and electrolysis in their application of chemistry to industry.

CHM 105 Chemistry I 4 2 5
General course in applied inorganic chemistry and an introduction to organic chemistry as it relates to agriculture and environmental problems and products. Chemical and physical properties of selected inorganic and organic elements are studied in detail. Laboratory work will consist of performing tests and experiments designed to apply basic principles of chemistry to environmental problems. Prerequisite: CHM 101.

CHM 106 Chemistry (Organic) 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. Prerequisite: CHM 105.

CHM 107 Agricultural Chemistry 4 2 5
Course dealing with the application of inorganic and organic chemistry principles to fertilizers, pesticides, and soil science. Pesticides formulation, testing, and properties. Soil and fertilizer methods of analysis used in North Carolina and their interpretations. Prerequisites: CHM 101, CHM 105, CHM 106.

CHM 121 Quantitative Chemical Analysis 3 6 5
Emphasis is placed on developing laboratory techniques employed in the volumetric analysis of acids and bases. The students will become thoroughly familiar with the principles and procedures of neutralization titration. Classroom work will emphasize the stoichiometric calculations involved in interpreting the results of analysis. Laboratory work will consist of percentage analysis of selected substances. Prerequisite: CHM 106.

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.			
CIV 102 Surveying	2	6	4
Triangulation of ordinary precision; use of plane tablet; calculation of areas of land; land surveying; topographic surveys and mapping.			
CIV 103 Surveying	2	6	4
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.			
CIV 105 Architectural Materials and Methods	3	3	4
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.			
CIV 110 Surveyor Practices	1	0	1
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.			
CIV 114 Statics	5	0	5
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.			
CIV 204 Surveying	2	6	4
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.			
CIV 216 Strength of Materials	3	2	4
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.			

CIV 218 Plain Concrete 3 3 4
 Study and testing of the composition and properties of concrete including cementing agents, aggregates, admixtures, and air entrainment; design and proportioning of concrete mixes to obtain predetermined strengths and properties; methods of placing and curing concrete; standard control tests of concrete.

CIV 219 Steel and Timber Construction 3 2 4
 Analysis and basic design of steel beams, tension members, columns, and riveted, high strength bolted, welded connections; study of plate girders, industrial building roofs and vents, continuous spans, lightweight steel construction; use of American Institute of Steel Construction Manual; introduction to rigid frames and plastic design in steel. Design of timber members and their connections. Field inspection trips. Prerequisite: CIV 216.

CIV 221 Reinforced Concrete Construction 3 2 4
 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.

CIV 223 Codes, Contracts & Specifications 2 0 2
 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 100 Art Appreciation 3 0 3
 An introduction to various visual art forms with an extensive analysis of the elements of design. Also a study of the artists and their works within the context of societies in which they were creative.

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. Prerequisite: None.

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. Prerequisite: None.

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 forms, abdominal arch, hair forms and variations. Prerequisites: 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. Prerequisite: None.			
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: paste-up, mechanicals, typography, and production. Prerequisites: CAT 121, CAT 122.			
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	0	4	2
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 0 4 2
 Advanced problems in advertising illustration. Emphasis is placed on originality and 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 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 224 Graphic 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.

DRAFTING

DFT 101 Technical Drafting 1 3-6 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 3-6 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 building 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 231 Architectural Mechanical Equipment Drafting **2 6 4**

A detailed study of mechanical equipment and preparation of plans and detail drawings as prepared by the mechanical engineering consultant or contractor for the architectural structure. Heating and air conditioning, lighting and electrical, plumbing, and other mechanical equipment as necessary for construction will be included in this study. Emphasis will be placed on drafting techniques used in preparing appropriate drawings and details. Prerequisites: ARC 221, AHR 106.

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. Prerequisite: None.

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. Prerequisite: ECO 102.

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 to understand better the economy in which he lives. Prerequisite: None.

ELECTRICITY

ELC 101 Fundamentals of Electricity **4 4 6**
 Elementary principles of electricity including basic electric units, Ohm's Law, Kirchhoff's Law, network theorems, magnetics, basic electrical measuring instruments, inductance, capacitance, sine wave analysis, and non-resonant resistive, inductive and capacitive networks. Prerequisite: None.

ELC 102 Fundamentals of Electricity **4 4 6**
 Series and parallel resonant-circuit analysis, resonant and nonresonant transformer analysis, basic diode power analysis, introduction to electro-mechanical devices. Prerequisite: ELC 101.

ELC 210 Rotating Devices **2 2 3**
 Introduction to electrical machinery. AC and DC motor and generator principles, synchros and servomechanisms, alternators and dynamotors, will be analyzed. A general knowledge of the theory, operation, and maintenance of these devices and systems will be stressed. Prerequisites: ELC 102, PHY 102.

ELECTRONIC DATA PROCESSING

EDP 100 Data Processing Seminar **0 1 0**
 This monthly seminar affords all data processing students an opportunity to meet guests from industry, to share ideas and to facilitate necessary communication between students and departmental faculty. No credit. Required each quarter for all students.

EDP 104 Introduction to Data Processing	3	0	3
Fundamental concepts and operational principles of data processing systems, as an aid in developing a basic knowledge of computers, prerequisite to the detailed study of a particular computer problem. This course is a prerequisite for all programming courses.			
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.			
EDP 115 FORTRAN	2	2	3
A fundamental course in FORTRAN or PL/1 programming. The FORTRAN or PL/1 language structure, statements, and programming methods and techniques are studied. The student will develop program logic and write FORTRAN or PL/1 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 the integration of the computer with business and industry.			
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 (using COBOL) required in processing management information. Statistical analysis programming using a scientific language is studied as an aid to business decision making.			
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 215 Computer Systems II	2	2	3
A study of the computer systems involving such concepts of architecture and/or programming for operating systems, job control language, resident packs, teleprocessing, and system utilities.			
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 218 User Programs	2	2	3
A study of the documentation, applications, and use of various user supplied programs.			

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 220 Statistical Programming 2 2 3
 A study of FORTRAN programming as applied to solution of statistical problems. The student will analyze statistical problems and develop the programs and/or use library programs for computer solution.

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 2 3
 An introductory course in a report generator language appropriate for use with a small computing system.

EDP 224 RPG II 2 2 3
 This course is a continuation of RPG I with special emphasis on applications and programming procedures of the smaller business.

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 Applications 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 105.

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.

ELN 214 Wave Shaping & 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 & 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 225 Transmission and Propagation 3 0 3
 An introduction to the electromagnetic radiation, principles of antenna, radiation patterns and field strength. The characteristics and use of transmission lines in radio frequency application. Factors involved in propagation, ground waves, reflections, sky waves, atmospheric effects, ionosphere, fading, noise, static, wire radiators, directive gain, effect of ground, impedance, antenna systems and arrays. Prerequisite: ELN 105; Corequisite: ELN 205.

ELN 227 UHF and Microwave Systems 5 4 7
 A study of UHF and VHF components, circuits, and measurement techniques. The use of distributed constant elements, waveguides, and coaxial cables, microwaves links, high frequency oscillators, magnetrons, klystrons, traveling wave tubes. An introduction to the use of the Smith Chart. Prerequisite: ELN 225

ELN 230 Television Systems 4 6 7
 A study of the principles of television including the television system, camera tubes, scanning and synchronization, composite video signal, receiver circuits, transmitting equipment, color television, and closed loop systems. Corequisite: ELN 214.

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.

ELN 240 Digital Computers 3 0 3
 An exploratiion into the methodology of counting and computing. Various computer techniques will be investigated including: non-sinusoidal waveforms, binary and decade counters, industrial counters, readout devices, computer control, analog and digital converters. Prerequisite: ELN 214.

ELN 245 Electronic Design Project 0 4 2
 Students are required to design and construct a project approved by the instructor. Includes selection of project, design, construction, and testing of completed project. Projects may include: AM or FM transmitters or receivers, amplifiers, test equipment, control devices, simple counters, lasers, masers, etc. Prerequisite: ELN 205.

ENGLISH

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 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: None.

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 or permission of instructor.

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 or permission of the instructor.

ENG 104 Creative Expression: Written **3 0 3**

Oral and Visual 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, expression 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 characteristics of these various forms and ultimately motivated to express himself through them. Prerequisite: ENG 102.

ENG 204 Oral Communication **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. 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 and 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 (TV, Radio, Motion Picture). The students in addition to learning advanced acting, become fully acquainted with all aspects of the financial management of a theatre. Prerequisite: ENG 251.

ENG 253A Acting and Directing Techniques Lab 0 5 0
The student learns about advanced techniques through practical application.

ENVIRONMENT

ENV 101 Environmental Orientation 2 2 3
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. Prerequisite: None.

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. Prerequisite: None.

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 204 Water Sampling and 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, ENV 104, ENV 217.

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, CHEM 105.

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 understnading 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, degritting, 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 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 SO₂, NO₂, O₂, aldehydes, acrolein. Familiarization with continuous monitoring equipment. Prerequisites: ENV 101, 112.

ENV 236 Air Pollution Sources 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_x, SO_x, 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. Prerequisite: None.

MATHEMATICS

MAT 101 Technical Mathematics 5 0 5
 The real number systems developed as an extension of natural numbers. Number systems of various bases. Fundamental algebraic operations, the rectangular

coordinate system, as well as fundamental trigonometric concepts and operations. Stress on the application of these principles in practical problems. Prerequisite: Satisfactory evidence that admission requirements have been met.

MAT 102 Technical Mathematics 5 0 5

A continuation of MAT 101. Advanced algebraic and trigonometric topics including quadratics, logarithms, the binomial expansion, complex numbers, solution of oblique triangles and graphs of the trigonometric functions are studied in depth. Prerequisite: MAT 101.

MAT 103 Technical Mathematics 5 0 5

The fundamental concepts of analytical geometry and an introduction to differential and integral calculus. Topics included are graphing techniques, geometric and algebraic interpretation of the derivative, differentials, rate of change, the integral and basic integration techniques. Applications of these concepts to practical situations. Prerequisite: MAT 102.

MAT 107 Applied Mathematics 5 0 5

Mathematics related to the applied sciences. Some types included are: Arithmetic review, percents, exponents, roots, radicals, logarithms, metric system. Signed numbers, special products and factoring, linear equations, quadratics and numerical trigonometry are introduced from the field of algebra. Prerequisite: None.

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: Satisfactory evidence that admission requirements have been met.

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 ability to apply these concepts effectively in developing 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 uses.

MAT 201 Technical Mathematics 5 0 5

A continuation of MAT 103. More advanced concepts of differentiation and integration. Introduction to solutions of differential equations and an introduction to Fourier Series. Prerequisite: MAT 103.

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.

MAT 214 Statistics 5 0 5
 The theory of statistics and its application in modern business. Kinds of regularity that exist among random fluctuations. Experience in associating and using mathematical models to interpret physical phenomena and predicting the outcomes of experiments related to practical business problems. Prerequisite: MAT 110.

MAT 215 Statistics 5 0 5
 Practical experiences in the statistical solution of business problems through the use of computers. Methods of organizing, presenting, and interpreting data. Prerequisite: MAT 214.

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 Co-requisite: 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 Co-requisite: 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 had 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 & 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. Prerequisite: None.			
PHO 204 Police Science Photography	3	2	4
A study of the various kinds of photographic equipment and its application 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, the development of negative and of the finished print. The student will develop techniques in the use of different kinds of cameras and other photographic equipment Through lab practice. Prerequisite: None.			

PHO 217 Photography 1 6 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 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.

PHYSICAL EDUCATION

PED 104 Softball 2 0 1

PED 106 Basketball 2 0 1

PED 108 Volley Ball 2 0 1

PHYSICS

PHY 101 Technical Physics 3 2 4
 A fundamental course covering several basic principles of physics. The divisions included are solids and their characteristics, liquids at rest, gas laws and applications. Laboratory experiments and specialized problems dealing with these topics are part of this course. Corequisite: MAT 101.

PHY 102 Technical Physics 3 2 4
 Major areas covered in this course are work, energy, and power, Instruction includes such topics as statics, forces, center of gravity, and dynamics. Units of measurement, and their applications are a vital part of this course. A practical approach is used in teaching the students the use of essential mathematical formulas. Prerequisite: MAT 101 & PHY 101.

PHY 103 Technical Physics 3 2 4
 A survey of the concepts involving wave motion leads to a study of acoustics and sound, its generation, transmission and detection. An introduction to the study of light, illumination, and the basic principles of optics. Basic theories of electricity, types of electricity, methods of production, and transmission. Prerequisites: MAT 101, PHY 101.

PHY 104 Technical Physics 3 2 4
 Basic concepts of rotary motion are discussed. A basic study of simple harmonic motion leads into a survey of the concepts involving wave motion including standing waves, resonance and sound. An introduction to the study of light and the basic principles of optics. Prerequisites: MAT 101, PHY 102.

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. Prerequisite: None.

PSC 102 Introduction to Criminology 5 0 5
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. Prerequisite: None.

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, juvenile 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. Prerequisite: None.

PSC 112 Motor Vehicle Laws 3 0 3
A study of the traffic enforcement codes with primary emphasis placed on North Carolina Law. Prerequisite: None.

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. Prerequisite: None.

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. Prerequisite: None.

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 upon 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. Prerequisite: None.			
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 instructor/coordinator.			

PSC 220 Organization and Administration 5 0 5
 An introduction to the principles of organization and administration including their application to field 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. Prerequisite: None.

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 5
 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. Prerequisite: None.

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. Prerequisite: None.

PSYCHOLOGY

PSY 101 Introduction to Psychology 5 0 5
 A course deisgned 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. Prerequisite: None.

PSY 102 General Psychology 3 0 3
 A study of the various fields of psychology; the development process; motivation; emotion; frustration and adjustment; mental helath; 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. Prerequisite: None.

PSY 103 Adolescent Psychology 3 0 3
 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.

PSY 112 Personality Development 3 0 3
 Designed to help the student recognize the importance of the physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on grooming and methods of personality improvement. Prerequisite: None.

PSY 120 Human Growth & Development 5 0 5
 A study of the basic principles of physiological and psychological growth stages of child from conception through adolescence. Prerequisite: PSY 102.

PSY 206 Applied Psychology 3 0 3
 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. Prerequisite: None.

PSY 207 Applied Police Psychology	3	0	3
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.			
PSY 211 Behavior Disorders I: Theory	3	0	3
A study of general patterns of abnormal behavior with emphasis on biological and environmental causal factors and human coping mechanisms. Prerequisite: PSY 101.			
PSY 212 Behavior Disorders II: Modification	3	4	5
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.			
PSY 219 Introduction to Personality	5	0	5
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. Prerequisite: None.

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. Prerequisite: None.

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 103 Social Problems 5 0 5
A study of the nature and extent of major social problems of contemporary society, with emphasis given to such problems as family disorganization, crime and delinquency, minority groups, industrialization and urbanization. Prerequisite: SOC 101.

SOC 207 Rural Society 3 0 3
A study of selected elements of rural sociology with emphasis on current social change. The course provides a sociological background for the understanding of rural social changes. Areas of study include rural culture, group relationships, social classes, rural and suburban communities, farm organizations, the communication of agricultural technology, rural social problems, agricultural adjustment and population change. Prerequisite: None.

SOC 213 Urban and Rural Society 5 0 5
A study of selected aspects of urban and rural sociology; with emphasis on current social changes and the relationship between the problems of living and mental health. Area include housing, cultures, social classes, group relationships, population, job opportunities, and problems encountered. Prerequisite: SOC 101.



GUIDED STUDIES

The Institute offers specialized courses aimed at the building of skills which are necessary for success in its curricula. Students who have a need to further their preparation are given the opportunity to enroll in these courses.

This program provides courses which apply as credit toward graduation along with others, which carry only institutional credit. Mathematics, Communications, and other courses include review and skill building studies which are necessary for success in the students chosen curriculum. Most curricula encourage taking some regular courses along with the basic skill building courses. These courses are taken for full credit, thus moving the student closer to graduation. Although students taking Guided Studies may take longer to graduate than the regular schedule demands, they should be better prepared for the regular curriculum and they should have lighter loads which will enable them to concentrate their efforts with a greater chance of success.

CHEMISTRY

CHM 010 Chemistry 3 2 4

An introductory course for beginning students covering topics such as: scientific methods, metric system, states of matter, elements, mixtures, compounds, physical and chemical properties of matter, atomic theory with special emphasis on electronic configuration, periodic table, stoichiometry, formula writing, balancing chemical equations and the study of general gas laws. Laboratory experiments selected to meet the needs of the subject matter and students. Prerequisite: None.

DRAFTING

DFT 010 Mechanical Drafting I 2 2 3

A beginning course in instrumental drawing for students needing a basic knowledge of drawing and describing objects in the graphic language. Course content will include: use of instruments, lettering, geometric construction, theory of projection and introduction to the working drawing. Emphasis will be placed on visualizing and describing objects in the graphic language. Prerequisite: None.

DFT 011 Mechanical Drafting II 2 2 3

Fundamental principles of orthographic projection, working drawings, and sections, with emphasis on visualizing. This course includes further study in orthographic projection, sectioning, dimensioning and various other phases of working drawings. Also included is an introduction to isometric drawings, oblique projection, and blueprinting. Prerequisite: None.

ELECTRONICS

ELN 010 Introduction to Electronics 3 3 4
Electronic measurements and electronics terminology.

ENGLISH

ENG 010 Communications I 10 0 10
A review of basic reading fundamentals—viz phonics, syllabication, vocabulary, word attack, sentences and paragraph interpretation and expanded reading. Prerequisite: None.

ENG 011 Communications II 10 0 10
Reading for greater speed and comprehension with emphasis in vocabulary, spelling and expanded reading. Prerequisite: ENG 010 or permission of instructor.

ENG 012 Communications III 10 0 10
Sentence structure and punctuation with further emphasis on vocabulary and spelling. Prerequisite: ENG 011 or permission of instructor.

ENVIRONMENT

ENV 010 Basic Ecology 3 2 4
A basic course in the study of the relationships between man and the environment in which he lives. Stress is placed upon environmental problems and the solution to these problems.

MATHEMATICS

MAT 010 Basic Mathematics 5 0 5
Fundamental operations with whole numbers and fractions are reviewed. Ratio and proportion, powers and roots, number systems, mathematical symbols, fundamental algebra, basic geometry, and basic trigonometry are introduced.

MAT 011 Algebra I 5 0 5
Basic concepts and operations of algebra; algebraic symbols; signed numbers; equations of the first degree special products and factoring; operations with fractions; fractional equations; problem solving. Prerequisite: None.

MAT 012 Algebra II 5 0 5
A continuation of MAT 011. Systems of first degree equations in two and three variables; graphing equations in the rectangular coordinate system; exponents and radicals; quadratic equations. Prerequisite: MAT 011.

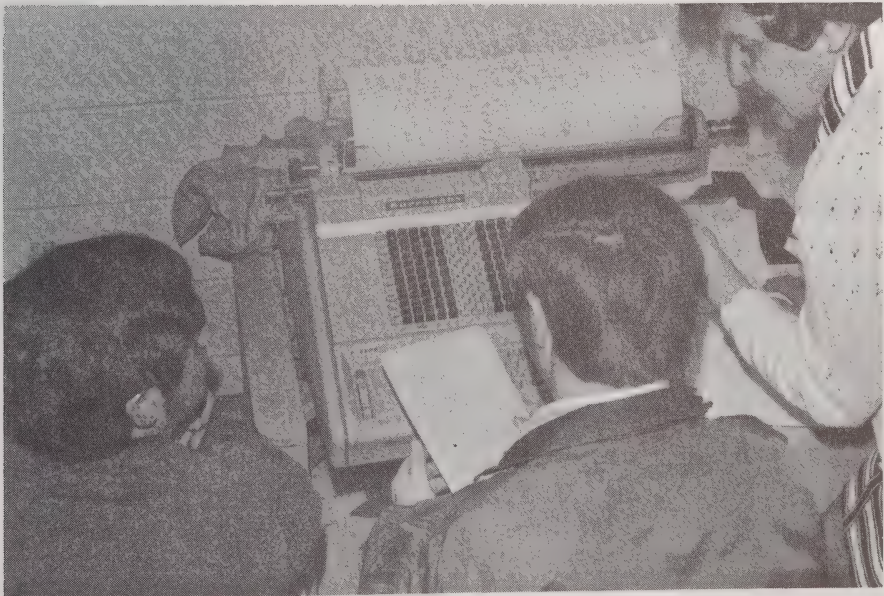
PHYSICAL EDUCATION

PED 1101 Physical Education Activities 2 0 2
 Course is designed to acquaint students with various play ground activities, physical exercises, and other outdoor activities. Emphasis will be placed upon techniques for organizing groups in preparation for physical activities.

PHYSICS

PHY 010 Physics I 3 2 4
 Introductory physics with emphasis on fundamental concepts, including basic study of systems of measurement, properties of matter, and mechanics. Selected experiments are performed by students in the laboratory. Prerequisite: None.

PHY 011 Physics II 3 2 4
 A continuation of Physics I with emphasis on basic concepts of heat, electricity, magnetism, light and sound. Selected experiments are performed by students in the laboratory. Prerequisite: PHY 010.



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 adaptation 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

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 they 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
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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)			
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0	10	1
0	20	2
0	30	3
0	40	4

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.

**VOCATIONAL
EDUCATION**

VOCATIONAL EDUCATION

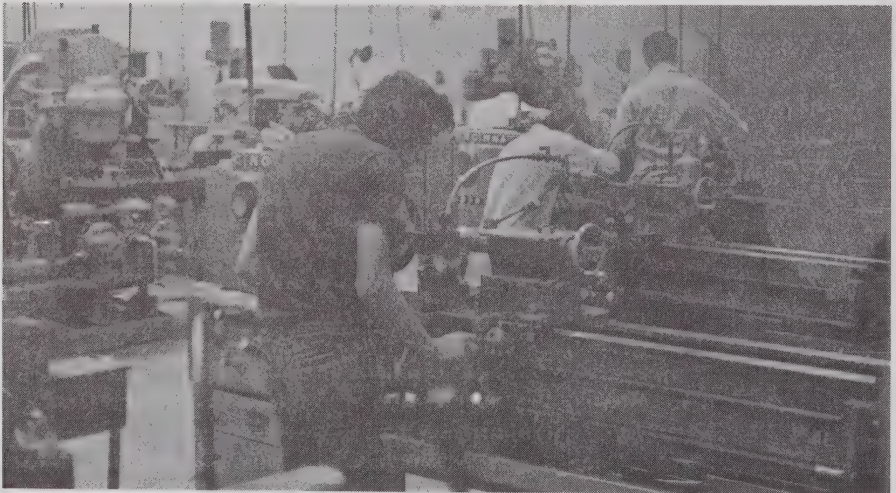
The objective of vocational education is to provide students with necessary skills which will enable them to transform the ideas and plans of engineers into tangible goods or services. Large numbers of skilled craftsmen work in plants and factories where they manufacture, install, control, maintain, and repair complex equipment needed by our highly technical society.

The vocational curricula are designed to prepare one for initial employability, to retrain for new skills, or to provide advancement within a given vocation.

Normally, one year (12 months) of full-time participating is required for a student to complete any given vocational curriculum. Any of the vocational curricula may be completed on a part-time basis, though it will require more than one year to do so.

The vocational curricula to be offered by Pitt Technical Institute during the 1972-1974 school years will include the following:

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



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 particular types of repair work. For example, some may 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
FIRST QUARTER				
PME 1101	Internal Combustion Engines	5	12	9
PHY 1103	Principles of Electricity	1	2	2
MAT 1101	Fundamentals of Math	5	0	5
ENG 1101	Reading Improvement	<u>2</u>	<u>0</u>	<u>2</u>
		13	14	18
**Guided Studies				
ENG 010	Communications I	10	0	10
*MAT 1101	Fundamentals of Math	5	0	5
CIV 1193	Introduction to Vocations I	<u>1</u>	<u>6</u>	<u>3</u>
		16	6	18
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	<u>2</u>	<u>3</u>	<u>3</u>
		12	12	16
**Guided Studies				
ENG 011	Communications II	10	0	10
*MAT 1101	Fundamentals of Math	5	0	5
CIV 1194	Introduction to Vocations II	<u>1</u>	<u>6</u>	<u>3</u>
		16	6	18
THIRD QUARTER				
PME 1104	Fuel Systems	3	6	5
AHR 1101	Automotive Air Conditioning	2	3	3
PME 1123	Brakes, Chassis, Suspension	3	9	6
PSY 1101	Human Relations	<u>3</u>	<u>0</u>	<u>3</u>
		11	18	17
*Guided Studies				
ENG 012	Communications III	10	0	10
*MAT 1102	Algebra	5	0	5
CIV 1195	Introduction to Vocations III	1	6	3
*WLD 1129	Basic Welding	<u>2</u>	<u>3</u>	<u>3</u>
		18	9	21

FOURTH QUARTER

PME 1124	Power Trains	3	12	7
PME 1125	Auto Servicing	3	9	6
		<u>6</u>	<u>21</u>	<u>13</u>

TOTAL QUARTER HOURS IN COURSES 64

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	15	5

In September, the student will enroll full time and work toward completing the fourth, fifth, and sixth quarters as presented in this catalog.

	Course Title	C	L	CH
FIFTH QUARTER				
PME 1202	Electricity/Electronics	3	9	6
PME 1204	Auto Emission Control Devices	3	6	5
MEC 1112	Machine Shop	1	3	2
		<u>7</u>	<u>18</u>	<u>13</u>

SIXTH QUARTER

PME 1224	Auto Transmissions	3	9	6
PME 1227	Power Accessories	2	6	4
PME 1226	Advanced Auto Servicing	2	6	4
		<u>7</u>	<u>21</u>	<u>14</u>

TOTAL QUARTER HOURS IN COURSES FOR STUDENTS WHO COMPLETE SIX QUARTERS 96

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.

*This course carries full graduation credit for this particular curriculum.

**See Page 143 for description of the Guided Studies Program.

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
FIRST QUARTER				
ELC 1112	Direct & Alternating Current	5	12	9
ENG 1101	Reading Improvement	2	0	2
MAT 1115	Electrical Math	5	0	5
PHY 1101	Applied Science	<u>3</u>	<u>2</u>	<u>4</u>
		15	14	20
SECOND QUARTER				
ELC 1113	Alternating Current & Direct Current Machines & Controls	5	12	9
DFT 1110	Blueprint Reading: Building Trades	0	3	1
ENG 1102	Communication Skills	3	0	3
PHY 1102	Applied Science	<u>3</u>	<u>2</u>	<u>4</u>
		11	17	17
THIRD QUARTER				
ELC 1124	Residential Wiring	5	9	8
ELN 1118	Industrial Electronics	3	6	5
PSY 1101	Human Relations	3	0	3
DFT 1113	Blueprint Reading: Electrical	<u>0</u>	<u>3</u>	<u>1</u>
		11	18	17
FOURTH QUARTER				
ELC 1125	Commercial & Industrial Wiring	5	12	9
ELN 1119	Industrial Electronics	3	6	5
BUS 1103	Small Business Operations	<u>3</u>	<u>0</u>	<u>3</u>
		11	18	17
TOTAL QUARTER HOURS IN COURSES		71		

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.

Three 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.

**ELECTRONIC SERVICING
SUGGESTED CURRICULUM BY QUARTERS**

	Course Title	C	L	CH
FIRST QUARTER				
ELC 1112A	D. C. Theory & Practice	4	9	7
ELN 1101	Troubleshooting Concepts	2	3	3
ENG 1101	Reading Improvement	2	0	2
MAT 1101	Basic Mathematics†	5	0	5
ELN 1108	FCC License††	5	0	5
		<u>13</u>	<u>12</u>	<u>17</u>
** Guided Studies				
ENG 010	Communications I	10	0	10
*MAT 1101	Fundamentals of Mathematics	5	0	5
DFT 1201	Drafting: Mechanical I	1	3	2
*ELN 1101	Troubleshooting Concepts	1	3	3
		<u>18</u>	<u>6</u>	<u>20</u>
SECOND QUARTER				
ELC 1112B	A. C. Theory & Practice	5	12	9
MAT 1115	Electronic Mathematics	5	0	5
ENG 1102	Communication Skills	3	0	3
		<u>13</u>	<u>12</u>	<u>17</u>
** Guided Studies				
ENG 011	Communications II	10	0	10
*MAT 1101	Fundamentals of Math	5	0	5
DFT 1202	Drafting: Mechanical II	1	3	2
		<u>16</u>	<u>3</u>	<u>17</u>
THIRD QUARTER				
ELN 1103	Introduction to Control Devices	5	9	8
ELN 1125	Radio Receiver Servicing	2	6	4
MAT 1116	Electronic Mathematics	5	0	5
		<u>12</u>	<u>15</u>	<u>17</u>

† Required if deficient in basic mathematics.

†† Substitute if proficient in MAT 1101.

** Guided Studies

ENG 012	Communications III	10	0	10
MAT 1102	Algebra	5	0	5
*PSY1101	Human Relations	3	0	3
*BUS 1103	Small Business Management	3	0	3
		<u>21</u>	<u>0</u>	<u>21</u>

FOURTH QUARTER

ELN 1127	Television Receiver Circuits & Servicing	10	15	15
		<u>10</u>	<u>15</u>	<u>15</u>

TOTAL QUARTER HOURS IN COURSES 66

Three 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.

	Course Title	C	L	CH
FIFTH QUARTER				
ELN 1104	Application of Control Devices	5	9	8
ELN 1107	Communications	3	3	4
PHY 1101	Applied Science	3	2	4
		<u>11</u>	<u>14</u>	<u>16</u>

SIXTH QUARTER

ELN 1105	Industrial Electronics & Instrumentation	5	12	9
ELN 1111	Audio Visual Equipment Repair	3	3	4
BUS 1103	Small Business Management	3	0	3
		<u>11</u>	<u>15</u>	<u>16</u>

SEVENTH QUARTER

ELN 1106	Maintenance & Analysis of Electronic Systems	5	12	9
ELN 1109	Television Broadcasting	5	0	5
PSY 1101	Human Relations	3	0	3
		<u>13</u>	<u>12</u>	<u>17</u>

TOTAL QUARTER HOURS IN COURSES FOR STUDENTS
THAT COMPLETE SEVEN QUARTERS 115

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.

*This course carries full graduation credit for this particular curriculum.

**See Page 143 for description of the Guided Studies Program.

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 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.

The 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
FIRST QUARTER				
AHR 1116	Oil Burner Installation & Service	4	6	6
MAT 1101	Fundamentals of Math	5	0	5
PHY 1101	Applied Science	3	2	4
DFT 1104	Blueprint Reading	0	3	1
AHR 1120	Principles of Refrigeration	<u>3</u>	<u>2</u>	<u>4</u>
		15	13	20
 SECOND QUARTER				
AHR 1117	Gas Burners, Electric Heat & Liquid Heat Applications	4	3	4
AHR 1121	Principles of Refrigeration	3	6	4
ELC 1101	Applied Electricity	2	0	2
DFT 1116	Blueprint Reading: Air Conditioning	2	2	3
WLD 1102	Basic Gas Welding	<u>0</u>	<u>3</u>	<u>1</u>
		11	14	15
 THIRD QUARTER				
AHR 1122	Commercial Refrigeration	3	8	6
ELC 1102	Applied Electricity	1	3	2
AHR 1123	Principles of Air Conditioning	2	4	4
MAT 1115	Electrical Mathematics	<u>5</u>	<u>0</u>	<u>5</u>
		11	15	17
 FOURTH QUARTER				
AHR 1126	All Year Comfort System	3	9	6
AHR 1109	Job Planning & Estimating	2	0	2
PSY 1101	Human Relations	3	0	3
AHR 1128	Automatic Controls	<u>3</u>	<u>6</u>	<u>5</u>
		11	15	16
 TOTAL QUARTER HOURS IN COURSES		 68		

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
FIRST QUARTER				
MEC 1101	Machine Shop Theory & Practice	3	12	7
MAT 1101	Fundamentals of Math	5	0	5
DFT 1201	Drafting: Mechanical I	1	3	2
PHY 1101	Applied Science	3	2	4
ENG 1101	Reading Improvement	2	0	2
		<u>14</u>	<u>17</u>	<u>20</u>
**Guided Studies				
ENG 010	Communications I	10	0	10
*MAT 1101	Fundamentals of Math	5	0	5
CIV 1193	Introduction to Vocations I	1	6	3
		<u>16</u>	<u>6</u>	<u>18</u>
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	Communicative Skills	3	0	3
		<u>15</u>	<u>17</u>	<u>21</u>
**Guided Studies				
ENG 011	Communications II	10	0	10
*MAT 1101	Fundamentals of Math	5	0	5
CIV 1194	Introduction to Vocations II	1	6	3
		<u>16</u>	<u>6</u>	<u>18</u>
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	3	0	3
		<u>11</u>	<u>18</u>	<u>17</u>
**Guided Studies				
ENG 012	Communications III	10	0	10
*MAT 1102	Algebra	5	0	5
CIV 1195	Introduction to Vocations III	1	6	3
*WLD 1129	Basic Welding	2	3	3
		<u>18</u>	<u>9</u>	<u>21</u>

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	0	3	1
		<u>8</u>	<u>21</u>	<u>15</u>

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 the curriculum instructors.

	Course Title	C	L	CH
FIFTH QUARTER				
MEC 1105	Machine Shop Theory & Practice	3	15	8
MAT 1123	Machinist Mathematics	3	0	3
MEC 1221	Machine Maintenance	2	3	3
		<u>8</u>	<u>18</u>	<u>14</u>

SIXTH QUARTER

MEC 1106	Machine Shop Theory & Practice	3	12	7
DFT 1203	Drafting: Mechanical III	0	6	2
MEC 1107	Jigs & Fixtures	2	6	4
		<u>5</u>	<u>24</u>	<u>13</u>

TOTAL QUARTER HOURS IN COURSES FOR STUDENTS
THAT COMPLETE SIX QUARTERS 100

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.

*This course carries full graduation credit for this particular curriculum.

**See Page 143 for description of the Guided Studies Program.

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, human relations, economics, and industrial organization 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 of specifications.

**MECHANICAL DRAFTING
SUGGESTED CURRICULUM BY QUARTERS**

	Course Title	C	L	CH
FIRST QUARTER				
DFT 1121	Drafting	3	12	7
MAT 1101	Fundamentals of Math	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>

****Guided Studies**

ENG 010	Communications I	10	0	10
*MAT 1101	Fundamentals of Math	5	0	5
CIV 1193	Introduction to Vocations I	1	6	3
		<u>16</u>	<u>6</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
ENG1102	Communication Skills	3	0	3
PHY 1102	Applied Science	3	2	4
		<u>16</u>	<u>11</u>	<u>20</u>

****Guided Studies**

ENG 011	Communications II	10	0	10
*MAT 1101	Fundamentals of Math	5	0	5
CIV 1194	Introduction to Vocations II	1	6	3
		<u>16</u>	<u>6</u>	<u>18</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>

**Guided Studies				
ENG 012	Communications III	10	0	10
*MAT 1102	Algebra	5	0	5
CIV 1195	Introduction to Vocations III	1	6	3
*WLD 1129	Basic Welding	2	3	3
		<u>18</u>	<u>9</u>	<u>21</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.

*This course carries full graduation credit for this particular curriculum.

**See Page 143 for description of the Guided Studies Program.

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 records.

Job Description

The LPN is prepared to function in a variety of situations: hospitals of all types, nursing homes, clinics, doctors' and dentists' offices, Federal Service Agencies, and in some localities, public health facilities. In all situations, the LPN 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
FIRST QUARTER					
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
		19	6	0	22

****Guided Studies**

ENG 010	Communications I	10	0	0	10
MAT 010	Basic Mathematics	5	0	0	5
MAT 110	Business Math	5	0	0	5
CHM 010	Chemistry	3	2	0	4
		23	2	0	24

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	0	0	21	7
	Medical-Surgical (11 weeks)				
PNE 1024	Nursing Studies Lab	0	3	0	1
		11	3	21	19

****Guided Studies**

ENG 010	Communications II	10	0	0	10
MAT 107	Applied Math	5	0	0	5
BUS 102	Typewriting	2	3	0	3
		17	3	0	18

THIRD QUARTER

PNE 1030	Medical-Surgical Nursing II	10	0	0	10
PNE 1031	Clinical Experience	0	0	21	7
	Medical-Surgical (11 weeks)				
PNE 1032	Nursing Studies Lab	0	3	0	1
		10	3	21	18

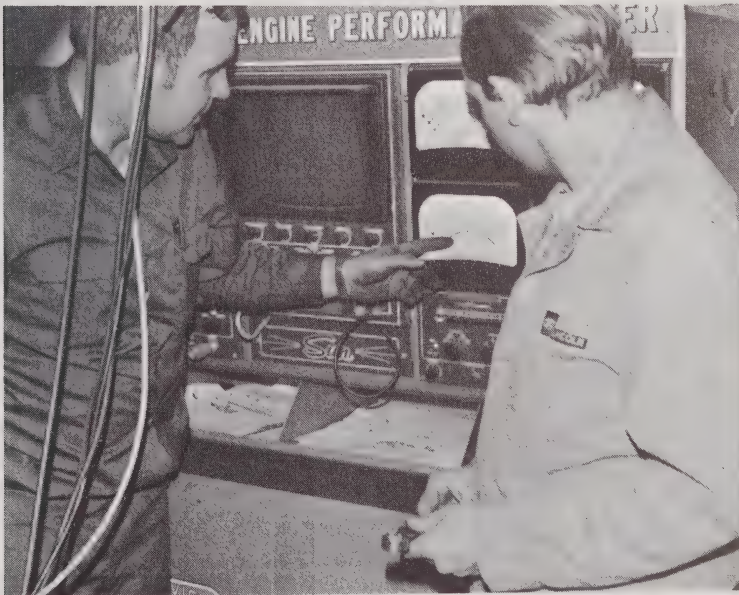
****Guided Studies**

ENG 010	Communications III	10	0	0	10
SOC 102	Principles of Sociology	3	0	0	3
PSY 102	General Psychology	3	0	0	3
		<u>16</u>	<u>0</u>	<u>0</u>	<u>16</u>

FOURTH QUARTER

PNE 1040	Personal & Vocational Relations 2	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 (OB-Pediatrics/11 weeks)	0	0	21	7
		<u>8</u>	<u>0</u>	<u>21</u>	<u>15</u>

TOTAL QUARTER HOURS IN COURSES 74



*This course carries full graduation credit for this particular curriculum.

**See Page 143 for description of the Guided Studies Program.

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
FIRST QUARTER				
ENG 1107	Reading Techniques	5	0	5
PED 1101	Physical Education Activities	2	0	2
ENG 1104	Basic Communications I	4	0	4
PSY 1102	Child Development	5	0	5
TAI 1101	Visual Aids Techniques	3	0	3
EDU 1100	Orientation	1	0	1
		<u>20</u>	<u>0</u>	<u>20</u>
**Guided Studies				
ENG 010	Communications I	10	0	10
MAT 010	Basic Mathematics	5	0	5
*TAI 1101	Visual Aids Techniques	3	0	3
*EDU 1100	Orientation	1	0	1
*PED 1101	Physical Education Activities	2	0	2
		<u>21</u>	<u>0</u>	<u>21</u>
SECOND QUARTER				
EDU 1101	General Education I	1	0	1
TAI 1103	Music, Arts, & Drama	1	0	1
ENG 1105	Basic Communications II	4	0	4

BUS 1102	Beginning Typewriting	2	3	3
MAT 1106	Math Fundamentals	4	0	4
TAI 1102	Visual Aids Techniques	3	2	4
TAI 1106	Teacher Assistant Internship	0	20	5
		<u>15</u>	<u>25</u>	<u>22</u>
** Guided Studies				
ENG 011	Communications II	10	0	10
*MAT 1106	Math Fundamentals	4	0	4
*BUS 1102	Beginning Typing	2	3	3
*TAI 1102	Visual Aids Techniques	3	2	4
		<u>19</u>	<u>5</u>	<u>21</u>
THIRD QUARTER				
EDU 1102	General Education II	1	3	2
ENG 1106	Basic Communications III	4	0	4
MAT 1107	Concepts of New Math	4	0	4
BUS 1104	Intermediate Typewriting	2	3	3
EDU 1103	Special Education	4	0	4
TAI 1107	Teacher Assistant Internship	0	20	5
		<u>15</u>	<u>26</u>	<u>22</u>
** Guided Studies				
ENG 012	Communications III	10	0	10
*MAT 1107	Concepts of New Math	4	0	4
*BUS 1104	Intermediate Typewriting	2	2	3
*BUS 110	Office Machines	3	2	4
		<u>19</u>	<u>4</u>	<u>21</u>
FOURTH QUARTER				
EDU 1104	Social Science	5	0	5
BUS 1106	Advanced Typewriting	2	3	3
TAI 1104	Visual Aids Techniques	2	3	3
PSY 1103	Child Development	5	0	5
TAI 1105	Library Techniques	2	0	2
		<u>16</u>	<u>6</u>	<u>18</u>
TOTAL QUARTER HOURS IN COURSES		82		

*This course carries full graduation credit for this particular curriculum.

**See Page 143 for description of the Guided Studies Program.

CERTIFICATE PROGRAMS

Cosmetology Farrriering

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 this 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	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	20
4. Anatomy	75	75
5. Digestion	15	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 it 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	10
4. Anatomy	10	10
5. Digestion	5	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	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 boulding	10
10. Cosmetics	5

TOTAL 188

Hours assigned.....1190
Safety measures.....10

TOTAL1200

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 begins his work with frozen horses' feet and progresses to work on live horses. 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 may 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.)

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 stonemasons 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 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	0	3	1
		<u>10</u>	<u>18</u>	<u>16</u>

SECOND QUARTER

MAS 1102	Bricklaying II	5	15	10
MAT 1112	Building Trades Mathematics	3	0	3
DFT 1111	Blueprint Reading & Sketching I	0	3	1
		<u>8</u>	<u>18</u>	<u>14</u>

THIRD QUARTER

MAS 1103	Bricklaying III	5	15	10
MAS 1113	Masonry Estimating I	3	3	4
DFT 1112	Blueprint Reading & Sketching II	0	3	1
		<u>8</u>	<u>21</u>	<u>15</u>

FOURTH QUARTER

MAS 1104	Bricklaying IV	5	15	10
MAS 1114	Masonry Estimating II	3	3	4
DFT 1113	Blueprint Reading & Sketching III	0	3	1
		<u>8</u>	<u>21</u>	<u>15</u>

TOTAL QUARTER HOURS IN COURSES

TOTAL QUARTER HOURS IN COURSES-----60



COURSE DESCRIPTIONS VOCATIONAL TRADE DIPLOMA PROGRAM

The courses which follow are a complete alphabetical listing of courses offered at Pitt Technical Institute in the Vocational Trade Diploma Program.

In the course description following the course number and title appears a code which should be interpreted as follows: first number equals number of lecture or classroom hours; second number denotes the number of shop or laboratory hours; third number equals number of credit hours.

AIR CONDITIONING, HEATING, AND REFRIGERATION

AHR 1101 Automotive Air Conditioning 2 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 2 0 2

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 principle 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 5

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 forms of heating units.

Prerequisite: None.

AHR 1120 Principles of Refrigeration 3 2 4

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 refrigeration; characteristics, and comparison of the various refrigerants; the use and construction of valves, fittings, and basic controls. Practical work includes tube bending, flaring and soldering. Standard procedures and safety measures are stressed in the use of special refrigeration service equipment and the handling of refrigerants. Prerequisite: None.

AHR 1121 Principles of Refrigeration 3 6 4
A continuation and more advanced study in refrigeration principles. Prerequisite: AHR 1120 .

AHR 1122 Commercial Refrigeration 3 8 6
Commercial refrigeration servicing of conventional, hermetic and absorption system. Cabinet care, controls, and system maintenance in refrigerators, freezers, and window air conditioning units is stressed. Commercial refrigeration servicing of display cabinets, walk-in cooler and freezer units, and mobile refrigeration systems is studied. The use of manufacturer's catalogs in sizing and matching system components and a study of controls, refrigerants, servicing methods is made. The American Standard Safety Code for refrigeration is studied and its principles practiced. Prerequisite: AHR 1121.

AHR 1123 Principles of Air Conditioning 2 4 4
Work includes the selection of various heating, cooling, and ventilation systems, investigation and control of factors affecting air cleaning, movement, temperature and humidity. Use is made of psychrometric charts in determining needs to produce optimum temperature and humidity control. Commercial air conditioning equipment is assembled and tested. Practical sizing and balancing of duct work is performed as needed. Prerequisite: AHR 1121.

AHR 1126 All Year Comfort Systems 3 9 6
Auxiliary equipment used in conjunction with refrigeration systems to provide systems to provide heating and cooling for all year comfort will be studied and set up in the laboratory. Included will be oil fired systems, gas fired systems, water circulating systems, and electric resistance systems. Installation of heat pumps will be studied along with servicing techniques. Reversing valves, special types of thermostatic expansion valves, systems of deicing coils, and electric wiring and controls are included in the study. Prerequisite: AHR 1123.

AHR 1128 Automatic Controls 3 6 5
The study of various control thermostat systems used by manufacturers for the installation of their equipment. This course includes resetting and calibrating of control units used on the various heating systems. The principles of how these controls work is also discussed and covered during the lecture portion of this course.

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. Prerequisite: None.

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.

BUS 1105 Industrial Organizations 3 0 3
Methods, techniques and practices of modern management in planning, organizing, and controlling operations of a manufacturing concern. Introduction to the competitive system and the factors constituting product cost.

BUS 1106 Advanced Typewriting 2 3 3
Continuation of BUS 1104.

CIVIL ENGINEERING

CIV 1193 Introduction to Vocations I 1 6 3
To acquaint the student with the correct use of hand and machine tools. Demonstrations of the capabilities and practical applications of various shop tools; practice in reading shop sketches and drawing. Hands on experiences in the basic fundamentals of drill press and lathe operations; hand grinding of drill bits and lathe tools; set-up work related to machine trades.

CIV 1194 Introduction to Vocations II 1 6 3
A course designed to familiarize the student with the automotive mechanics profession and the shop in which he works. Under the instructor's supervision and while teaming with an advanced student, the beginning student will observe automotive servicing techniques as well as receive as much hands-on experience as possible involving testing, adjusting, repairing and replacing.

CIV 1195 Introduction to Vocations III 1 6 3
Introduction to drafting room procedures; sketching as a means to passing on ideas and information basic drafting instrument skills; orthographic projections, sectioning, dimensioning isometric drawings; working drawings; introduction to mechanical drafting drafting as a practical skill.

DRAFTING

- DFT 1101 Schematics and Diagrams, Measurement, Tools and Engines** 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 1102 Schematics and Diagrams (Electrical and Fuel Systems)** 1 3 2
Development of ability to read and interpret blueprints, charts, and service manuals. A course designed to give the student a broader knowledge of schematics and diagrams as they relate to the automotive electrical and fuel systems.
- DFT 1103 Schematics and Diagrams (Chassis & Brakes, etc.)** 0 3 1
Development of ability to read and interpret blueprints, charts, and service manuals. A course designed to give the student a broader knowledge of schematics and diagrams as they relate to automotive brakes, chassis and suspension.
- DFT 1104 Blueprint Reading** 0 3 1
Interpretation and reading of blueprints. Information on the basic principles of the blueprint: lines, views, dimensioning procedures and notes. Prerequisite: None.
- DFT 1105 Blueprint Reading: Mechanical** 0 3 1
Further practice in interpretation of blueprints as they are used in industry; study of prints supplied by industry; making plans of operations; introduction to drafting room procedures; sketching as a means of passing on ideas, information and processes. 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. Prerequisite: None.

DFT 1111 Blueprint Reading and Sketching I	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 II	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: Electrical	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 1116 Applied Drafting	2	2	3
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. Prerequisite: None.			
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 drawing will be included at the appropriate time. Prerequisite: None.			
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 axonometric 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 student 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 1 0 1
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 1102 General Education II 1 3 2
A further study of EDU 1100 with emphasis placed on professionalism and classroom management.

EDU 1103 Special Education 4 0 4
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 5 0 5
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. Prerequisite: None.

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 refrigerations 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 Kirchhoff'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. Prerequisite: None.

ELC 1112A Direct Current Theory and Practice 4 9 6
 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 Kirchhoff's Law; sources of direct current potentials.

ELC 1112B Alternating Current Theory and Practice 5 12 6
 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 circuit analysis.

ELC 1113 Alternating Current and Direct Current Machines and 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.

ELC 1124 Residential Wiring 5 9 8
 Provides instruction and application in the fundamentals of blueprint reading, planning, layout and installation of wiring in residential applications such as: services, switchboards, lighting, fusing, wire sizes, branch circuits, conduits, National Electrical Code regulations in actual building mock-ups. Prerequisites: ELC 1113, DFT 1110.

ELC 1125 Commercial and Industrial Wiring 5 12 9
 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. Prerequisites: ELN 1118, ELC 1124.

ELECTRONICS

ELN 1101 Troubleshooting Concepts 2 3 3
 A study of the techniques used in analysis of defective systems by block diagrams. Introduction to test equipment used in troubleshooting.

ELN 1102 Systems of Troubleshooting	2	3	3
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.			
ELN 1103 Introduction to Control Devices	5	9	8
Introduction to vacuum tube and 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.			
ELN 1104 Application of Control Devices	5	9	8
An indepth study of vacuum tubes and semiconductor devices with characteristic curves and manufacturers data used to understand how an why a circuit configuration behaves in a predetermined manner; application and uses of the different configurations and simple design characteristics of each.			
ELN 1105 Industrial Electronics and Instrumentation	5	12	9
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, seitching and monitoring circuits and other devices applicable to the field of industrial electronics.			
ELN 1106 Maintenance and Analysis of Electronic System	5	12	9
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.			
ELN 1107 Communications	3	3	4
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 1108 FCC License	5	0	5
A course to acquaint the student with the rules and regulations of the Federal Communications Commission. Also included are questions and answers to aid the student in acquiring a communication license.			
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 3 3 4
 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 2 6 4
 Principles of radio reception and practices of servicing. Included are block diagram and schematics of radio receivers, servicing techniques of AM and FM receivers by resistive measurements, signal injection and signal tracing, voltage analysis and methods of locating faulty stages and components.

ELN 1127 Television Receiver Circuits and Servicing 10 15 15
 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.

ENGLISH

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 various report forms will be given and some time will be devoted to oral speech and note taking. Prerequisite: ENG 1101.

ENG 1104 Basic Communications I **5 0 5**
 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.

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.

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 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.

MATHEMATICS

MAT 1014 Practical Math for Nurses 3 0 0 3

Review of basic mathematics: Roman and Arabic numerals, fractions, decimals, percents, ratio and proportion. Systems of measurements: household, apothecaries and metric. Methods of calculating dosages.

MAT 1101 Fundamentals of Mathematics 5 0 5

Practical 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 surfaces and volumes. Introduction to algebra used in trades. Practice in depth. Prerequisite: None.

MAT 1102 Algebra 5 0 5

Basic concepts and operations of algebra: historical background of our base-10 number system; algebraic operations: addition, subtraction, multiplication and division; fractions, letter representation, grouping, factoring, ratio and proportions, variations; graphical and algebraic solution of first degree equations; solution of simultaneous equations by addition and subtraction, substitution, graphing, exponents, tables and interpolations. Prerequisite: Satisfactory evidence that admission requirements have been met or MAT 1101.

MAT 1103 Geometry 3 0 3

Fundamental properties and definitions; plane and solid geometric figures, selected general theorems, geometric construction of lines, angles and plane figures. Dihedral angles, areas of plane figures, volumes of solids. Geometric principles are applied to shop operations. Prerequisite: None.

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; graphs of the trigonometric functions. All topics are applied to practical problems. Prerequisite: MAT 1102.

MAT 1105 Fundamentals of Mathematics II 5 0 5

Practical number theory, continuation of study of basic operations; addition, subtraction, multiplication, and division. Fractions and decimals, powers and roots, percentages, ratio and proportion. Students will receive an introduction to Geometry and Algebra.

MAT 1106 Math Fundamentals 4 0 4

A study of the basics of mathematics: addition, subtraction, multiplication, and division. Students will be introduced and instructed in the principles of the new math concept.

MAT 1107 Concepts of New Math 4 0 4
Continuation of Mathematics 1106 with emphasis on the theory of the new math. Prerequisite: MATH 1106.

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: None.

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, Kirchoff'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 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 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. 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 producing 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 operation; hand grinding of drill bits and lathe tools; set-up work applied to the trade.			

MEC 1113 Shop Processes	2	3	3
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. Prerequisite: None.			
MEC 1114 Shop Processes	0	3	1
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.			
MEC 1115 Metallurgy—Ferrous Metals	2	3	3
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 causes 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.			
MEC 1116 Treatment	2	3	3
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.			
MEC 1147 Systems of Measurement and Measuring Tools	2	0	2
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.			
MEC 1221 Machine Maintenance	2	3	3
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.			
MEC 1425 Statics and Strength 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 observational 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, digestion, urinary, reproductive and endocrine. Presentation of the normal body as a basis for understanding variations from normal.

PNE 1012 Vocational Adjustment 3 0 0 3

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.

PNE 1013 Basic Nutrition 3 0 0 3

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.

PNE 1020 Medical-Surgical Nursing I 5 0 0 5

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.

PNE 1021 Introduction to Drug Administration 3 0 0 3

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.

PNE 1022 Human Relations	3	0	0	3
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.				
PNE 1023 Clinical Experience	0	0	21	7
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
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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
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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.

PNE 1043 Clinical Experience	0	0	21	7
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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.

PHYSICAL EDUCATION

PED 1101 Physical Education Activities	2	0	2
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Course is designed to acquaint students with various play ground activities, physical exercises, and other outdoor activities. Emphasis will be placed upon techniques for organizing groups in preparation for physical activities.

PED 1104 Softball	2	0	1
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PED 1106 Basketball	2	0	1
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PED 1108 Volley Ball	2	0	1
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PHYSICS

PHY 1101 Applied Science	3	2	4
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An introduction to physical principles and their application in industry. Topics in this course include measurements, properties of solids, liquids, and gases, basic electrical principles. Corequisite: MAT 1101, or MAT 1102.

PHY 1102 Applied Science	3	2	4
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The second in a series of two courses of applied physical principles. Topics introduced in this course are heat and thermometry and principles of force, motion, work, energy, and power. Prerequisite: PHY 1101, MAT 1101.

PHY 1103 Principles of Electricity 1 2 2
 A study of the electron theory; Ohm's Law; series and parallel circuits; magnetism; and batteries as related to automotive mechanics.

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 Auto 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 time of his lab time learning to use various pieces of auto electrical test equipment.

PME 1104 Automobile 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 Systems 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 functions 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 trains. 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. Prerequisite: PME 1102, AUT 1123, AHR 1101.

PME 1126 Small Engine Repair 2 3 3

The small engine repair is offered to train people in the maintenance and overhaul of the two and four cycle engines. Enrollees are taught to repair and replace defective parts of the small engines used to power boats, lawn mowers, garden tractors, chain saws, rototillers, and similar machines. Instruction in safety is one of the major responsibilities of the course. Prerequisite: PME 1101.

PME 1186 Practicum 0 15 5

The student will spend a minimum of fifteen hours per week 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 1203 Advanced Auto Tune-Up 4 9 6

Study of operation of various tune-up equipment. Shop practice in use of tune-up equipment on live projects. This practical course should help the student to increase his work experience with the more technical aspects of engine tune-ups and should develop his knowledge of the waveforms of the oscilloscope and other test units on the Tune-up Tester. The student should be able to put to practical use, the basic theory of electricity, storage batteries, ignition systems, cranking motors, charging circuits, and engine principles which he has already learned.

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 1221 Advanced Front Suspension and Power Steering	1	3	2
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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, spring, 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 the various types of balancing machines. A study of and practice in the use of alignment specification charts and machines. Analysis and correction of tire wearing problems, vibrations, hard steering, ducking, pulling, etc. Shop practice in diagnosis and correction of problems.

PME 1224 Automatic Transmission	3	9	6
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This course is designed to provide a measure of depth in the understanding of automatic transmissions. Instruction includes classroom study, demonstrations, and student participation in disassembly, reassembly, and testing of selected transmissions. Special emphasis is placed on principles, function, construction, operation, servicing and trouble shooting procedures and repair of various types of automatic transmissions. Prerequisite: PME 1124.

PME 1226 Advanced Auto Servicing	2	6	4
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Emphasis on troubleshooting and repairing the various component systems of the automobile, providing an extra range (beyond that of PME 1125) of testing, adjusting, repairing, and replacing experiences.

PME 1227 Power Accessories	2	6	4
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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
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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	5	0	5
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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 5 0 5
 Continuation of PSY 1102 with emphasis on primary and elementary age children. Prerequisite: PSY 1102.

TEACHER ASSISTANT

TAI 1101 Visual Aids Techniques I 3 0 3
 This course will enable the student to acquire the skills necessary to use all audio visual and duplicating equipment, materials, and services available in school systems.

TAI 1102 Visual Aids Techniques II 3 2 4
 Students will be acquainted with various crafts and art work that can be used in the primary level of ability in the public schools. Emphasis will be placed also on preparation of bulletin boards and classroom displays.

TAI 1103 Music, Art, and Drama 1 0 1
 The objective of this course is to study music fundamentals necessary in the use of some kindergarten and primary grade learning kits and to acquaint the students with the use of role playing as an instructional device.

TAI 1104 Visual Aids Techniques 2 3 3
 Emphasis is placed on lamination, mounting felt and flannel boards sentence strips and chart writing. Students will review audio visual equipment and supplies.

TAI 1105 Library Techniques 2 0 2
 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 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.





**CONTINUING
EDUCATION**

EXTENSION AND EVENING PROGRAMS

General Information
Certificate Programs
Occupational Extension
Management Development Programs
Law Enforcement Training
Hospitality Training
Fire Service Training
Special Industrial Programs
General Adult Education
The Learning Center
MDTA Programs

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. 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 for two three hour sessions. 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.

Each course is open to any adult (16 years or older) 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. An instructional fee of 10c per class hour is made for some classes.

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 to be transferred for curriculum credit is subject to evaluation by the chairman of a particular department.

ARCHITECTURAL DRAFTING CERTIFICATE—EVENING PROGRAM

	Nights	Per	Contact
	Week		Hours
FIRST QUARTER			
ARC 3106 Architectural Drafting I	2		66
SECOND QUARTER			
ARC 3107 Architectural Drafting II	2		66
THIRD QUARTER			
ARC 3108 Architectural Drafting III	2		66
FOURTH QUARTER			
ARC 3220 Architectural Drafting IV	2		66
FIFTH QUARTER			
ARC 3221 Architectural Drafting V	2		66
SIXTH QUARTER			
ARC 3222 Architectural Drafting VI	2		66
Totals Required for Completion			396

Architectural Drafting Certificate—Evening Program

	Nights Per Week	Contact Hours
FIRST QUARTER		
ARC 3106 Architectural Drafting I	2	66
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 3107 Architectural Drafting II	2	66
Development of techniques of architectural lettering, symbols, and their interpretations; dimensioning, freehand and instrument drafting. Drawing of construction details, sections, scale details and full-size details will be prepared from preliminary sketches.		
THIRD QUARTER		
ARC 3108 Architectural Drafting III	2	66
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 3220 Architectural Drafting IV	2	66
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. This course will deal mainly with commercial construction.		
FIFTH QUARTER		
ARC 3221 Architectural Drafting V	2	66
Advanced study for architectural drawing of commercial building. Consideration is given to coordination of mechanical and electrical features with structural and architectural components.		

SIXTH QUARTER

ARC 3222 Architectural Drafting VI **2** **66**

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. This course is a continuation of DFT 1135.

Automotive Mechanic Certificate—Evening Program

	Nights Per Week	Contact Hours
FIRST QUARTER		
PME 31101 Internal Combustion Engine	2	66
SECOND QUARTER		
PME 31102 Engine Electrical & Fuel System	2	66
THIRD QUARTER		
PME 31123 Brakes, Chassis & Suspension	2	66
FOURTH QUARTER		
PME 31103 Principles of Auto Air Condition	2	66
FIFTH QUARTER		
PME 31124 Power Trains	2	66
SIXTH QUARTER		
PME 31221 Front Suspension and Power Steering	2	66
Totals Required for Completion		396

Automotive Mechanic Certificate—Evening Program

	Nights Per Week	Contact Hours
FIRST QUARTER		
PME 31101 Internal Combustion Engine	2	66
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

PME 31102 Engine Electrical & Fuel System 2 66

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

PME 31123 Brakes, Chassis & Suspension 2 66

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 31103 Principles of Auto Air Condition 2 66

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 31124 Power Trains 2 66

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 31221 Front Suspension & Power Steering 2 66

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, hard steering, pulling, ducking, etc. Shop practice in diagnosis and correction of problems.

Computer Programming Certificate—Evening Program

	Nights Per Week	Contact Hours
FIRST QUARTER		
EDP 3114 Introduction to Computer Concepts	1	33
SECOND QUARTER		
EDP 3115 FORTRAN	2	44
THIRD QUARTER		
EDP 3118 COBOL I	2	66
FOURTH QUARTER		
EDP 3119 COBOL II	2	66
FIFTH QUARTER		
EDP 3211 Data Processing Applications I	2	66
SIXTH QUARTER		
EDP 3223 R. P. G. I	2	44
SEVENTH QUARTER		
EDP 3224 R. P. G. II	2	44
EIGHTH QUARTER		
EDP 3212 Data Processing Applications II	2	66
2 Quarters	COBOL	132
2 Quarters	Data Processing Applications	132
2 Quarters	R. P. G.	88
1 Quarter	Introduction	33
1 Quarter	FORTRAN	44
	Required for Completion	429

Computer Programming Certificate—Evening Program

	Nights Per Week	Contact Hours
FIRST QUARTER		
EDP 3114 Introduction to Computer Concepts	1	33

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 3115 FORTRAN 2 44

A fundamental course in FORTRAN or PL/1 programming. The FORTRAN or PL/1 language structure, statements, 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 3118 COBOL I 2 66

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 3119 COBOL II 2 66

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 3211 Data Processing Applications I 2 66

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 3223 R. P. G. I 2 44

An introductory course in a report generator language appropriate for use with a small computing system.

SEVENTH QUARTER

EDP 3224 R. P. G. II 2 44

This course is a continuation of R. P. G. I with special emphasis on applications and programming procedures of the small business.

EIGHTH QUARTER

EDP 3212 Data Processing Applications II 2 66

This course emphasized the preparation and utilization of operations data use 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 (using COBOL) required in processing management information. Statistical analysis programming using a scientific language is studied as an aid to business decision making.

Hotel-Motel Management Certificate—Evening Program

	Nights Per Week	Contact Hours
FIRST QUARTER		
Hotel-Motel Management	2	66
HOS 3018 Introduction to Hotel-Motel Management		
HOS 3022 Motel-Motor Hotel		
HOS 3016 Hotel-Motel Law		
 SECOND QUARTER		
Personnel Management	2	66
HOS 3028 Supervisory Development		
HOS 3017 Human Relations		
HOS 3002 Communications		
 THIRD QUARTER		
Property Management	2	66
HOS 3029 Supervisory Housekeeping		
HOS 3020 Maintenance and Engineering		
HOS 3014 Organization and Administration		
Required for Completion		198

Hotel-Motel Management Certificate—Evening Program

	Nights Per Week	Contact Hours
FIRST QUARTER		
HOS 3018 Introduction to Hotel-Motel Management	2	66

The subject matter traces the growth and development of the lodging industry from early inns to modern skyscraper hotels and highways motels. This course offers the beginner basic information on the lodging industry; its size and scope; the nature and scope of the market it serves; types of establishments it includes; how hotels and motels are organized; purposes and functions of each department. Also stressed are the importance of the "hospitality attitude" and the role of the hotel/motel as a competitive business in the free enterprise system. The challenging career opportunities offered by the hotel-motel business are examined in this course, which also points up recent trends, including the growth of chain operation and the influence of motels.

HOS 3022 Motel-Motor Hotel Management

A single unit of study for operators of smaller properties, which is designed to provide a thorough understanding of the many administrative techniques required to manage today's motel. Emphasis will be placed on these four areas of

activity: customers, employees, building and equipment finances. The course also deals with financial consideration, space utilization, sales promotion, guest relations, guest room facilities, food and beverage facilities, accounting records, interpreting financial statements and administrating controls.

HOS 3016 Hotel-Motel Law

The course presents a highly technical subject in non-technical language. It is directed to all innkeepers and their executive personnel. Its purposes are to illustrate the consequences of lack of foresight on the part of management, to help the student to understand the attitudes of the courts when an innkeeper is involved in a litigation, and to create an awareness of the many responsibilities which the law imposes upon the innkeeper. The course also offers those who make, or interpret, managerial decisions safe and sound rules to assist them in avoiding lawsuits and legal pitfalls.

SECOND QUARTER

Personnel Management

2

66

HOS 3028 Supervisory Development

The objective of this course is to develop the supervisory ability of department heads and other supervisors. More specifically it seeks to provide information, tools and techniques through which you may develop more management-minded, customer-oriented, cost-conscious department heads; make more effective use of available manpower; foster a sense of belonging among department heads and employees. To achieve these goals the course deals with four major areas of the department head's job: 1. Dealing with people. 2. Communciations. 3. Training, techniques 4. Cost consciousness and methods improvement.

HOS 3017 Human Relations

A course offering a basic knowledge of human behavior and suggestions of possible ways to channel that behavior so as to achieve worthwhile purposes. It provides some useful techniques for: understanding of guests in situations involving both normal behavior; minimizing correction points in getting work done smoothly and efficiently; maximzing individual iniative and its contributions to serving the guest. Case studies are used to illustrate principles of business psychology and the many ways in which employees and guests react to each other. Improved employee cooperation and guest relations are stressed.

HOS 3002 Communications

A study of the principles of communication, examining oral and written communication and explaining how to get your message accepted. Special emphasis and attention will be given to: the theory of communication; application of communication principles to basic management functions;

effective listening; improving reading ability; developing speaking skill; communicating on the job; writing better letters, audio-visual communication techniques.

THIRD QUARTER

	Property Management	2	66
HOS 3029	Supervisory Housekeeping		

This course provides an introduction to the fundamentals of housekeeping management. Produced in cooperation with National Executive Housekeeping Association, it stresses employee training, record keeping and executive responsibilities. The course examines in detail the organization of the housekeeping department, its relationship to other departments, essentials of leadership and supervision and ways to set and achieve objective through planning, implementation, staffing and scheduling. Also discussed are staff development, work methods, improvement, equipment, cleaning materials and cleaning procedures, room design and safety.

HOS 3020 Maintenance and Engineering

This course examines the organization of the Engineering Department and provides the technical information needed to establish effective preventive maintenance procedures. Completing this course will not make you a maintenance expert, but it will give you the ability to diagnose many common mechanical problems, and take the proper steps to correct them. This course deals with electrical systems and acoustics, plumbing, heating, ventilation, refrigeration and air-conditioners, and elevators. It also covers selection of and decorating with paint, structural maintenance, landscaping and contracts, fire prevention and protection, and kitchen equipment. A special section of the course is devoted to "Problems in Food Service Engineering."

HOS 3014 Organization and Administration

This course analyzes managements' functions and responsibilities in the lodging industry. The course traces the transformation of the traditional hotel into a modern business enterprise; evaluates the benefits of professional management; explains the use of organization in achieving owners' goals. It also describes modern business communication techniques and discusses the growing influence of accounting in hotel/motel management. Other topics covered includes personnel management, guidelines for management self-appraisal, management's role in bringing the hotel/motel (product) and the guest (market) together. Suggests planning and innovations aimed at solving the lodging industry's major problems.

Machinist Certificate--Evening Program

		Nights Per Week	Contact Hours
FIRST QUARTER			
MEC 31101	Machine Shop Theory and Practice I	2	66
DFT 31105	Elementary Blueprint Reading	1	33
SECOND QUARTER			
MEC 31102	Machine Shop Theory and Practice II	2	66
DFT 31106	Advanced Blueprint Reading	1	33
THIRD QUARTER			
MEC 31103	Machine Shop Theory and Practice III	2	66
FOURTH QUARTER			
MEC 31104	Machine Shop Theory and Practice IV	2	66
MAT 31101	Fundamentals of Mathematics	1	33
FIFTH QUARTER			
MEC 31105	Machine Shop Theory and Practice V	2	66
MAT 31124	Applied Mathematics	1	33
SIXTH QUARTER			
MEC 31106	Machine Shop Theory and Practice VI	2	66
Totals			
6 Quarters	Shop Theory and Practice		396
2 Quarters	Blueprint Reading		66
2 Quarters	Mathematics		66
	Required for Completion		528

Machinist Certificate--Evening Program

		Nights Per Week	Contact Hours
FIRST QUARTER			
MEC 31101	Machine Shop Theory and Practice I	2	66
<p>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.</p>			

DFT 31105 Elementary Blueprint Reading 1 33
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

MEC 31102 Machine Shop Theory and Practice II 2 66
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 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.

DFT 31106 Advanced Blueprint Reading 1 33
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

MEC 31103 Machine Shop Theory and Practice III 2 66
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 31104 Machine Shop Theory and Practice IV 2 66
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 31101 Fundamentals of Mathematics 1 33
Practical 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 surfaces and volumes. Introduction to algebra used in trades. Practice in depth.

FIFTH QUARTER

MEC 31105 Machine Shop Theory and Practice V 2 66

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.

MAT 31124 Applied Mathematics 1 33

A follow-up of fundamentals of math with emphasis on machine shop applications. Includes simple geometric and trigonometric solutions with the use of charts, tables, and other applicable devices. Designed to equip shop employees with a working knowledge of shop math without an in-depth study of math theory.

SIXTH QUARTER

MEC 31106 Machine Shop Theory and Practice VI 2 66

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.

Mechanical Drafting Certificate—Evening Program

		Nights Per Week	Contact Hours
FIRST QUARTER			
DFT 31121	Drafting I	2	66
MAT 31101	Fundamentals of Mathematics	1	33
SECOND QUARTER			
DFT 31122	Drafting II	2	66
MAT 31124	Applied Mathematics	1	33
THIRD QUARTER			
DFT 31131	Mechanical Drafting III	2	66
FOURTH QUARTER			
DFT 31132	Mechanical Drafting IV	2	66
Totals			
4 Quarters	Mechanical Drafting		264
2 Quarters	Mathematics		66
	Required for Completion		330

Machinical Drafting Certificate—Evening Program

**Nights Per
Week Contact
 Hours**

FIRST QUARTER

DFT 31121 Drafting I

2

66

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 31101 Fundamentals of Mathematics

1

33

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 31122 Drafting II

2

66

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 axonometric pictorials will be done.

MAT 31124 Applied Mathematics

1

33

A follow-up to fundamentals of math with emphasis on machine shop applications. Includes simple geometric and trigonometric solutions with the use of charts, tables, and other applicable devices. Designed to equip shop employees with a working knowledge of shop math without an in-depth study of math theory.

THIRD QUARTER

DFT 31131	Drafting III	2	66
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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	66
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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

		Nights Per Week	Contact Hours
FIRST QUARTER			
BUS 3102	Typewriting I	2	55
ENG 3206	Business Communications	1	33
 SECOND QUARTER			
BUS 3103	Typewriting II	2	55
BUS 3110	Office Machines	1	33
 THIRD QUARTER			
BUS 3106	Shorthand I	2	55
BUS 3112	Filing	1	33
 FOURTH QUARTER			
BUS 3107	Shorthand II	2	55
BUS 3214	Secretarial Procedures	1	33

Totals

2 Quarters	Typewriting	110
2 Quarters	Shorthand	110
1 Quarter	Business Communication	33
1 Quarter	Office Machines	33
1 Quarter	Filing	33
1 Quarter	Secretarial Procedures	33
	Required for Completion	352

Secretarial Certificate—Evening Program

		Nights Per Week	Contact Hours
FIRST QUARTER			
BUS 3102	Typewriting I	2	55
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.			
ENG 3206	Business Communication	1	33
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			
BUS 3103	Typewriting II	2	55
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.			
BUS 3110	Office Machines	1	33
A general survey of the business and office machines. Students will receive training in techniques, processes, operation and application of the ten-key adding machines, full keyboard adding machines, and calculators.			
THIRD QUARTER			
BUS 3106	Shorthand I	2	55
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 3112	Filing	1	33
Fundamentals of indexing and filing, combining theory and practice by the use of miniature letters, filing boxes, and guides. Areas covered are Alphabetic, Geographic, Subject, and Numeric filing.			

FOURTH QUARTER

BUS 3107 Shorthand II 2 55
Continued study of theory with greater emphasis on dictation and elementary transcription.

BUS 3214 Secretarial Procedures 1 33
Involves study of office routines, postal regulations, and secretarial responsibilities. Also includes practices of transcribing shorthand notes at typewriter.

MANAGEMENT DEVELOPMENT PROGRAM—EVENING PROGRAM

Management Development Program—Evening Program

		Nights Per Week	Contact Hours
FALL QUARTER			
SDT 3018	Principles of Supervision	2	45
WINTER QUARTER			
	Psychology of Supervision	2	45
MDP 3019	Science of Human Relations		
MDP 3014	Job Relations Training		
MDP 3004	Creative Thinking		
SPRING QUARTER			
	Supervisory Techniques	2	45
MDP 3012	Job Analysis Training		
MDP 3013	Job Methods		
MDP 3008	Effective Writing		
SUMMER QUARTER			
	Motivation Techniques	2	45
MDP 3001	Art of Motivating People		
MDP 3006	Effective Communciation		
Totals Required for Completion			180

Management Development Program—Evening Program

		Nights Per Week	Contact Hours
FALL QUARTER			
MDP 3018	Principles of Supervision	2	45
This course presents basic and general principles of effective supervisory techniques. The course is divided into seven (7) parts which includes: Fundamentals of Supervision, Relationship 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.			

WINTER QUARTER

	Psychology of Supervision	2	45
MDP 3019	Science of Human Relation		

This topic is designed to relate the development of the Science of Humanics. Emphasis is given to the following areas: Machines and the Human Elements, The Personal Needs that Stimulate Behavior, Leadership and Supervision, Factors Influencing Attitudes, The Foundation of Business, Employer-Employee Relations, and Techniques for Handling People. Several case studies are reviewed and discussed at length.

MDP 3014 Job Relation Training

This topic is concerned with the fundamentals of Human Relations. It is, perhaps, the most popular and meaningful of all MDP courses. The topic content is divided into five (5) distinct sections which include: The Foundation of Human Relations, Bases for Decisions, The Four-Step Problem Solving Methods, Taking Prevention Action, Importance of Getting the Facts.

MDP 3004 Creative Thinking

This topic is to improve attitudes and thinking abilities of supervisors, to develop a strong motivation to utilize one's creative potential; also to develop a greater curiosity in problem solving, and to gain open-mindedness toward ideas of others.

SPRING QUARTER

	Supervisory Techniques	2	45
MDP 3012	Job Analysis		

This topic is designed to familiarize the supervisor with techniques necessary to gather facts about the specific operations and responsibilities of the job and what it entails, these include such areas as mental ability, skill, and physical requirements.

MDP 3013 Job Methods

Emphasis on this topic is placed on the importance of finding more efficient ways of completing daily tasks. Each participant is given an opportunity to study and submit a proposed method improvement project.

MDP 3008 Effective Writing

This topic is designed to help supervisors improve their writing skills involving 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.

SUMMER QUARTER

	Motivation Techniques	2	45
MDP 3001	Art of Motivating People		

This topic 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 to provide self-evaluation for those responsible for motivating others.

MDP 3006 Effective Communication

Emphasis in this topic 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.

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:

MEC 3001 Small Gas Engines

This course of study is especially designed for those people interested in servicing lawn mowers, and many others 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 3001 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.

DFT 31110 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 students ability to express ideas graphically through the use of freehand sketches.

ELC 3004 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 31113 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 3003 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 31115 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 31113 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 costs 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 31112 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 Kirchoff'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.

FIS 3017 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:

Basic Arc Welding.....	40 hours
Advanced Arc Welding	40 hours
Chartered Life Underwriter	60 hours

Insurance Adjusting (six 30 hour courses)	180 hours
Uniform Commercial Code.....	20 hours
Stocks and Bonds	30 hours
Pesticides.....	20 hours
Farm Record Keeping.....	20 hours
Ornamental Horticulture.....	20 hours
Tobacco Ticket Marking.....	80 hours
Tobacco Auctioneering.....	80 hours

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: Forceable 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.

There is no charge to the student or industry for such training. The potential class, however, must have a minimum of eight students.

For assistance in developing occupational extension classes, inquiries and requests are welcomed by the Director of Occupational Extension Programs.

GENERAL ADULT EDUCATION

General adult courses are offered to enable adults to improve themselves educationally and culturally or to broaden their avocational interests.

HIGH SCHOOL PREPARATION

60 hours

Courses for grades 9-12 are offered for only the cost of books. The preparation can lead to the high school equivalency certificate which is awarded by the North Carolina State Department of Public Instruction upon qualification. The GED Examination is administered at Pitt Technical Institute the first two Wednesdays of each month.

Speed Reading

30 hours

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.

Public Speaking

30 hours

A course designed to teach the student the fundamental techniques of effective public speaking, from making simple announcements to delivering a formal address. Students will be given the opportunity to develop short talks and to present them before the class.

Emergency Auto Care for Women

20 hours

A course designed to teach women the basic fundamentals of how an automobile operates, how to make tire changes, and simple emergency repairs. Periodic preventive maintenance and general upkeep will be emphasized.

Sewing I

36 hours

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.

Sewing II

36 hours

A continuation of Sewing I, 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.

Sewing III

36 hours

Continuation of Sewing II.

Tailoring**36 hours**

A course for the advanced student of sewing who has completed Sewing II or its equivalent. It includes the application of sewing techniques in working with heavy fabrics, such as wool, and the construction of suits and coats.

Flower Arranging**18 hours**

Art principles as related to live flower arrangements. Areas covered include uses of flowers, containers and accessories, design principles, color and texture, and arrangement for special occasions.

Knitting I**30 hours**

A course in the basic procedures of hand knitting, including the construction of articles from simple to advanced. Students are required to furnish needles and thread.

Interior Decorating**30 hours**

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.

Stenoscrypt ABC Shorthand**60 hours**

A successful system of shorthand based upon phonetic spelling. The course enables a person to master shorthand in the shortest time, at the least expense, and at speeds necessary.

Income Tax**30 hours**

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.

Modern Math for Parents**18 hours**

A short orientation course to help parents better understand the new math now being taught in the local public schools.

Driver Education**60 hours**

A course designed to teach adults how to drive an automobile. It consists of 6 hours of classroom instruction teaching "Traffic Laws and Highway Safety," to 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:

Basic Art, Sketching, Drawing, etc.	30 hours
Seasonal Decoration.....	30 hours
Decoupage.....	16 hours
Copper Tooling.....	16 hours
Furniture Upholstery.....	60 hours
Stocks and Bonds.....	30 hours
Basic Seamanship.....	20 hours
Arts and Crafts (variety).....	40 hours
Sign Language.....	50 hours

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 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.

WHEN?

The center is open Monday through Thursday, from 8:00-4:00 and 6:00–10:00, and on Friday from 8:30-3:00. You may apply at any time during these hours, and may study at any time.

WHERE?

Pitt Technical Institute is located on Highway 11 south of Greenville, North Carolina. Phone: 756-3130.

ADMISSION

Anyone age 18 years or older who is not presently enrolled in a secondary school may enroll in the center at no charge. (High School students may enroll with the principal's written permission.)

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 center is 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 own 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.

LOCATION

Pitt Technical Institute is located on Highway 11, South, approximately one mile south of the Greenville city limits. The Institute is nestled in a grove of pine trees that adds much to the natural beauty of the campus. The campus consists of 67 acres on which two modern, up-to-date buildings stand. Long-range plans call for the construction of several more classroom, laboratory, and general purpose buildings.

ARCHIVES

PITT TECHNICAL INSTITUTE
Highway 11
Greenville, North Carolina 27834