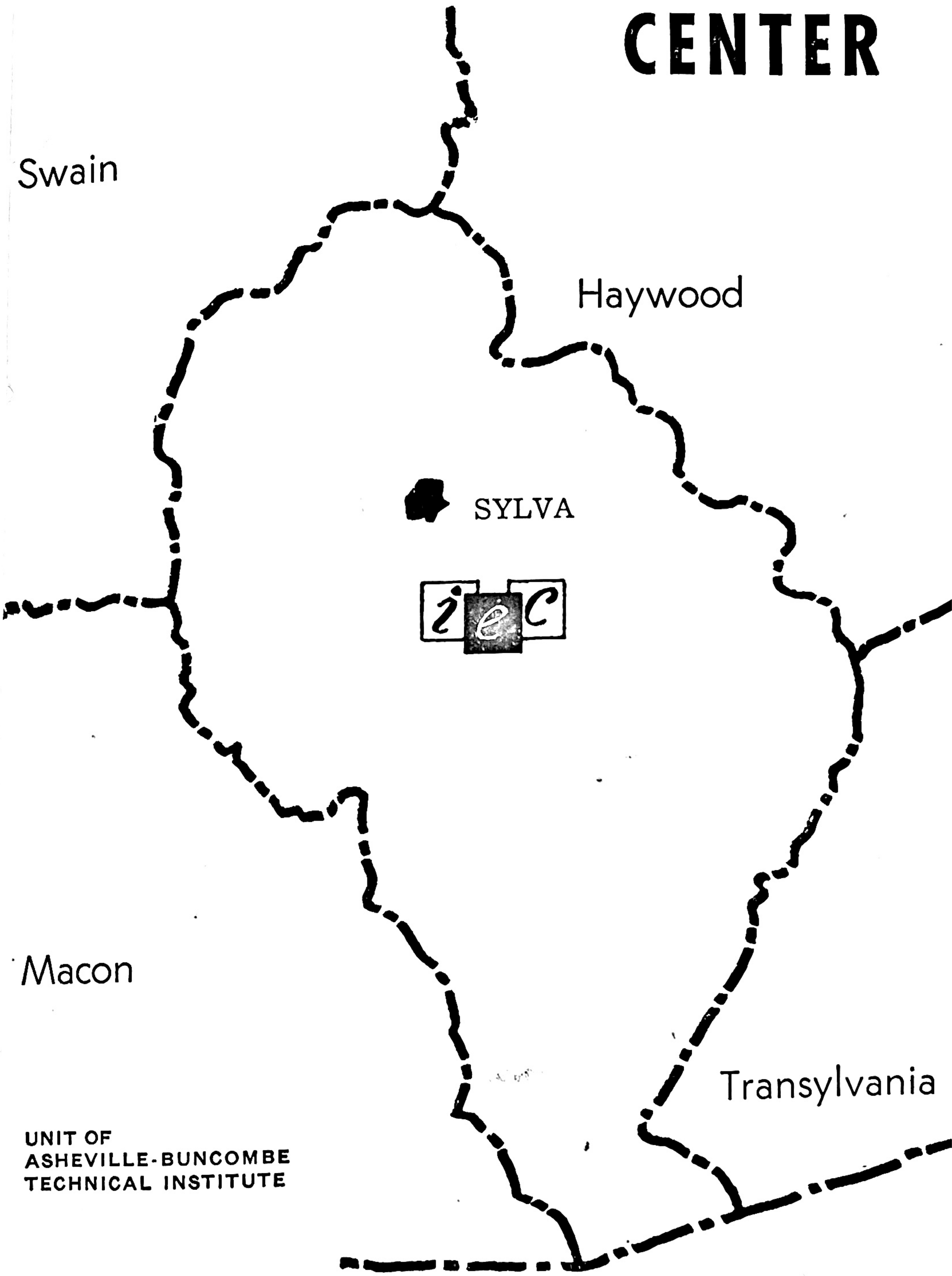
JACKSON COUNTY
INDUSTRIAL EDUCATION CENTER



UNIT OF
ASHEVILLE-BUNCOMBE
TECHNICAL INSTITUTE

JACKSON COUNTY
INDUSTRIAL EDUCATION CENTER

SYLVA, NORTH CAROLINA

UNIT OF
ASHEVILLE-BUNCOMBE TECHNICAL INSTITUTE

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SCHOOL CALENDAR
1966 - 1967

FALL QUARTER

Registration ..... Sept. 7

Classes Begin 9 a.m. ..... Sept. 8

Classes End ..... Nov. 23

Total number of class days—55

Thanksgiving Holidays—24 & 25

WINTER QUARTER

Registration 8 a.m. ..... Nov. 30

Classes Start 9 a.m. ..... Nov. 30

Classes End ..... Feb. 24, 1967

Total number of class days: 55

Christmas Holidays—December through January 1, 1967

SPRING QUARTER

Registration 8 .m. ..... March 6

Classes Start 9 a.m. ..... March 6

Classes End ..... May 23

Total number of class days: 55

Easter Holidays—Good Friday, March 24, Easter

Monday, March 27

SUMMER QUARTER

Registration 8 a.m. ..... June 7

Classes Start 9 a.m. ..... June 7

Classes End ..... August 23

Total number of class days: 55

Independence Day holiday—July 4

Graduation August 22

Administration

STATE BOARD OF EDUCATION

William D. Herring, Chairman
Edwin Gill, State Treasurer
Charles F. Carroll
J. A. Pritchett
Charles E. Jordan
Charles G. Rose, Jr.
C. W. McCrary
George Douglas Aitken
R. Barton Hayes
John M. Reynolds
Guy B. Phillips
H. L. Trigg

STATE STAFF

I. E. Ready ..... Director, Department of Community Colleges
I. E. Valentine ..... Assistant Director, Division of Vocational-Technical Programs

ASHEVILLE-BUNCOMBE INSTITUTE

Thomas W. Simpson ..... President
J. B. Edwards ..... Director of Extensions

STAFF

Bryson, E. E. ..... Director
B.S., Western Carolina College; M.A., Western Carolina College

Freeman, Joel ..... Supervisor, Adult Education
B.S., Western Carolina College

Anderson, J. B. ....Automotive Mechanics
Curtiss-Wright Technical Institute; Chicago's Sun Tune-Up School; General Motors Automotive School; Boeing Aircraft Engine and Maintenance; Extension work, North Carolina State University

Collins, Darlene ..... Head, Business Department
B.S., Western Carolina College; M.A., Western Carolina College; Graduate Work, George Peabody College

Henson, Doyle ..... Radio and TV
Battle Creek Community College

Parker, Percy ..... Related Subjects
A.B., Wake Forest; Mars Hill College; Western Carolina College

Searcy, James ..... Brick and Block Masonry
B.S., Western Carolina College

Ulsenheimer, Edwin ..... Drafting
University Center, Oahu, Hawaii; St. Petersburg Junior College; Extension Work, North Carolina State University

PART-TIME FACULTY

Harris, Fred Eugene ..... Business
B.S., Western Carolina College
Clark, Ray ..... Mathematics
B.S., Western Carolina College; M.A., Western Carolina College
Hart, Phyllis ..... Business
B.S., Western Carolina College
Ray, Rufus ..... Automotive Mechanics
G.M. Training Centers, 1951 to Present
Parker, J. D., Jr. ..... Related Courses
A.B., University of North Carolina
Woodson, John Rex ..... Radio and TV
Philco Service Training Schools, 1937 to Present

BASIC ADULT

Clegg, Elois ..... English
A.B., Mississippi College
Moses, Bruce ..... Mathematics
B.S., Western Carolina College
Moses, Shirley ..... Mathematics
B.S., Western Carolina College
Thomson, Margaret ..... Reading
B.A., Mount Holyoke; M.S., University of Wisconsin
Whitesides, Doris ..... English
B.A., U.N.C. at Greensboro
Collins, Jane ..... English
A.B., Meredith College

EXTENSION

Blanton, Freda ..... Typing
Causby, Rebecca ..... Home Sewing
Coggins, Edna ..... Business
Coulter, Doris ..... Weaving
Crawford, Robert ..... Welding
Crowe, Amanda ..... Wood Sculpture
Dinkins, Larry ..... Business
Estes, Herman ..... Wood Turning
Molinatto, Virginia ..... Income Tax Reporting
Riddle, Sammy ..... Blueprint Reading
Miss Peggy Dillard ..... Secretary
Mrs. Myrtice Brooks ..... Secrtary

Objectives

It has been said that technical education is knowledge in action. Objectives of the Jackson County Industrial Education Center embody the belief that the most meaningful knowledge is that which can be put to productive use.

Our objectives are envisioned as specific goals established to enlarge the potential of the individual student through education in the knowledge, skills, and attitudes which will be useful to him and thus his employer. The Center will provide instruction in numerous special fields to meet the demands of an industrial community, but it will not ignore its responsibility to equip students with the ability to think creatively and abstractly. In addition, certain courses which place emphasis on an understanding of the American free enterprise system and develop interest in the betterment of mankind are common to all areas of study.

Our aims reflect a firm philosophy that education should equip every individual, insofar as his capacity permits, with the competence to attain his economic, social, intellectual, and spiritual goals in a democratic society. Physical and mental skills will be developed to the end that each student, as he trains and works in the various occupations, will be able to contribute to the maintenance, improvement, and defense of our American way of life.

Areas of Study

Trade Division

Courses in the trade division place emphasis on training in those manipulative and mental skills applicable to the particular curriculum in which the student is enrolled. Students work under close supervision to obtain skills on a level acceptable to industry.

Technical Division

Courses offered in the technical division are designed to meet an increasing demand for high level industrial skills in North Carolina. Students entering the Technical division are required to meet educational and aptitude standards appropriate to the course chosen. Such standards require a firm educational base and a level of maturity expected of adults.

Students who successfully complete courses in this division will be prepared to offer prospective employers the training, knowledge, and skill necessary to work as an Industrial Technician. More time will be required to attain such a degree of proficiency than would be necessary in the less exacting trade courses. Applicants for the technical division will therefore be urged to enroll for the full-time program.

Extension Division

The extension division offers avenues of learning to those men and women who, though employed, seek to upgrade, update, and generally enhance their individual knowledge and performance. Most curriculums in the technical and trade divisions will be offered on an extension level.

Included in this division are short term courses designed as specific courses for upgrading and updating. Also included in this division are supervisory-level courses designed to stimulate those individuals who aspire to advance their knowledge in the fields of management.

Special classes, both day and night, may be provided to accommodate such students.

Basic Adult Education

To meet the challenge of the space age, the curriculum of adult education will provide studies in subjects as current as the morning headlines and as old as organized knowledge. Any adult, 18 years of age or older, is eligible to enroll in this area. Today's program stresses training or retraining for jobs or upgrading in business or industry, homemaking and parent education, areas of instruction of special community interest, and a high school diploma program for those adults who wish to attain a high school equivalency diploma.

New Industry Training

Training for new and expanding industry constitutes an important segment of the extension division. In cooperation with the industry involved, workers may be trained for specific occupational areas.

Admission Procedures and Requirements

General Requirements

Any North Carolina citizen may be enrolled in a course if he meets the admission requirements. Such requirements will necessarily depend upon the course of study chosen. The applicant must be eighteen years or older and must possess certain basic aptitudes and interest. No applicant may enroll in more than one curriculum.

The applicant should be in reasonably good health with no impairment of vision or physical defect that would restrict his ability in a particular field of work. The applicant may under certain conditions be required to furnish evidence of satisfactory health.

Educational background, experience, and aptitudes will all be considered when an application is made to the Center.

Admission Procedure

Persons wishing to take courses at the Center must file an application for admission. Application forms may be obtained by writing or calling the Center. The telephone number is 586-4091. A transcript of courses and grades from the last school attended must be on file with the Center before an application is considered complete.

While application for enrollment may be made at any time preceding the anticipated date of entry, it is strongly recommended that this be done at least thirty days prior to such date. Sufficient time will thereby be allotted for necessary testing, counseling, and proper evaluation of results.

All pre-employment students will be required to take entrance examinations. High school students will be tested in their respective high schools when possible.

After the completed application form is received, a date will be set for the prospective student to take the above-mentioned tests (if they have not already been taken). No application will be considered complete until all requested information has been supplied and a personal interview conducted with the Director or his representative.

Admission with Advance Standing

The Jackson County Industrial Education Center will accept work and give credit for work completed in other Technical Institutes, Industrial Education Centers, and Colleges. Applicants for admission with advanced standing should make application as a regular applicant and submit a transcript of work from prior schools. Acceptance of such work will be at the discretion of the Director.

Diplomas, Certificates, And Degrees

Diploma Courses Defined

The Jackson County Industrial Education Center will grant diplomas in the name of the North Carolina State Board of Education on successful completion of any trade level curricula. A state comprehensive examination will be required before graduation in any trade level curriculums.

Certificates

Certificates will be issued in the name of the Jackson County Industrial Education Center to students who successfully complete any short term program or course.

Degree Program Defined

The Asheville-Buncombe Technical Institute will confer an Associate in Applied Science degree in all Technical Curricula. A state comprehensive examination will be required before graduation in any Technical curriculum. The degree is awarded in the name of the North Carolina State Board of Education.

Fees

Registration Fee (all students, regardless of course) $2.00
Tuition:
Day Students — per quarter 30.00
Night students — per credit hour 2.00

Textbooks

All curriculum students will be expected to purchase adopted textbooks in all courses. These textbooks will be sold at a less than retail price to students. Every effort will be made to keep the total price of all textbooks between $30 and $40.

Recommended textbooks are to be purchased at the beginning of the quarter in which they are to be used. Textbooks used in any one quarter must be purchased by the end of the second week of classes of that particular quarter.

Student Insurance

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

A group policy providing the desired insurance protection will be maintained in effect by the Center and all students will be REQUIRED to subscribe to such coverage. The cost of accident insurance to the student will be approximately $2.50 per year.

Withdrawals

Any student who must withdraw because of illness or personal hardship may, if his work is deemed satisfactory at the time of withdrawal, re-enter the course provided that such action is taken upon the immediate next offering of the course. Any student withdrawing without authorization may re-enter only at the discretion of the Director.

A student may be dismissed from school for failure to achieve a passing grade for two grading periods or for infraction of the rules that apply to student conduct. Re-entrance of dismissed students will be at the discretion of the Director. A failing grade for one report period will automatically place the student upon probationary standing for the following report period.

Refunds

No refunds will be made to students who withdraw without authorization or who are dismissed for cause.

Students who are given permission to withdraw will receive a refund of their Instructional supply fee on a prorated basis.

Attendance Requirements

Only excused absences will be permitted. Unexcused absences will be entered as "0" for the daily work. An unexcused absence is any absence from class without a valid excuse presented to the instructor involved on the day of return to (classes) school.

Each clock hour missed in an absence. The number of unexcused absences may not exceed the number of quarter hours credit in each course.

Work missed during any absence must be made up to the satisfaction of the instructor.

Student Conduct

Students will be expected to conduct themselves at all times as individuals of prudence and maturity. The rights and feelings of others will be respected. Each student shall demonstrate a high regard for school facilities and property and for the personal property of others.

School regulations which serve to control such activities as vehicle traffic and parking, smoking, loitering, and other aspects of personal conduct must be stringently observed.

Students may be promptly dismissed for conduct which is considered incompatible with standards of propriety and good judgment.

Grading System

Grades will be issued to all students at midterm and at the end of the term. Students will be graded on the acquirement of technical skills, ability to work under supervision, interest in work, initiative, and the ability to apply related information.

Students enrolled in either the school of Technology or the school of Trades will be graded by the following system:

A	93-100	Excellent
B	86-92	Above Average
C	78-85	Average
D	70-77	Passing
F	Below 70	Unsatisfactory
WP	Withdrawal passing	
WF	Withdrawal failing	
I	Incomplete	

Incomplete: Assigned when a student is unable to complete his work or take a final examination because of illness or for other reasons over which the student has no control. This grade is given only with the approval of the Director of Student Personnel. An "incomplete" must be removed within the first six weeks of the next term in which the student is enrolled. Otherwise, the grade becomes an "F".

Additional Counseling and Testing

As mentioned under admission procedure all applicants will be required to be subjected to a series of aptitude tests. This will be accomplished prior to acceptance and registration. The counselor will schedule interviews with students concerning interpretation of their test scores and he will advise the student concerning course selections. Additional aptitude tests may be desirable to determine individual ability. Applicants are not encouraged to enroll unless it is believed that the student has made a sound choice and that he will profit from his choice.

Students are encouraged to use the counseling services at any time. The counseling service will work at all times with individuals to keep them informed of the progress they are making. Also, many reference materials are made available to students during the training program through the counseling service.

Placement Service

The Center provides placement service by working with the Employment Security Commission which will assist the students and alumni in securing employment. The objective of this service is to guide and assist the student and graduate in obtaining the type of position for which he is best qualified.

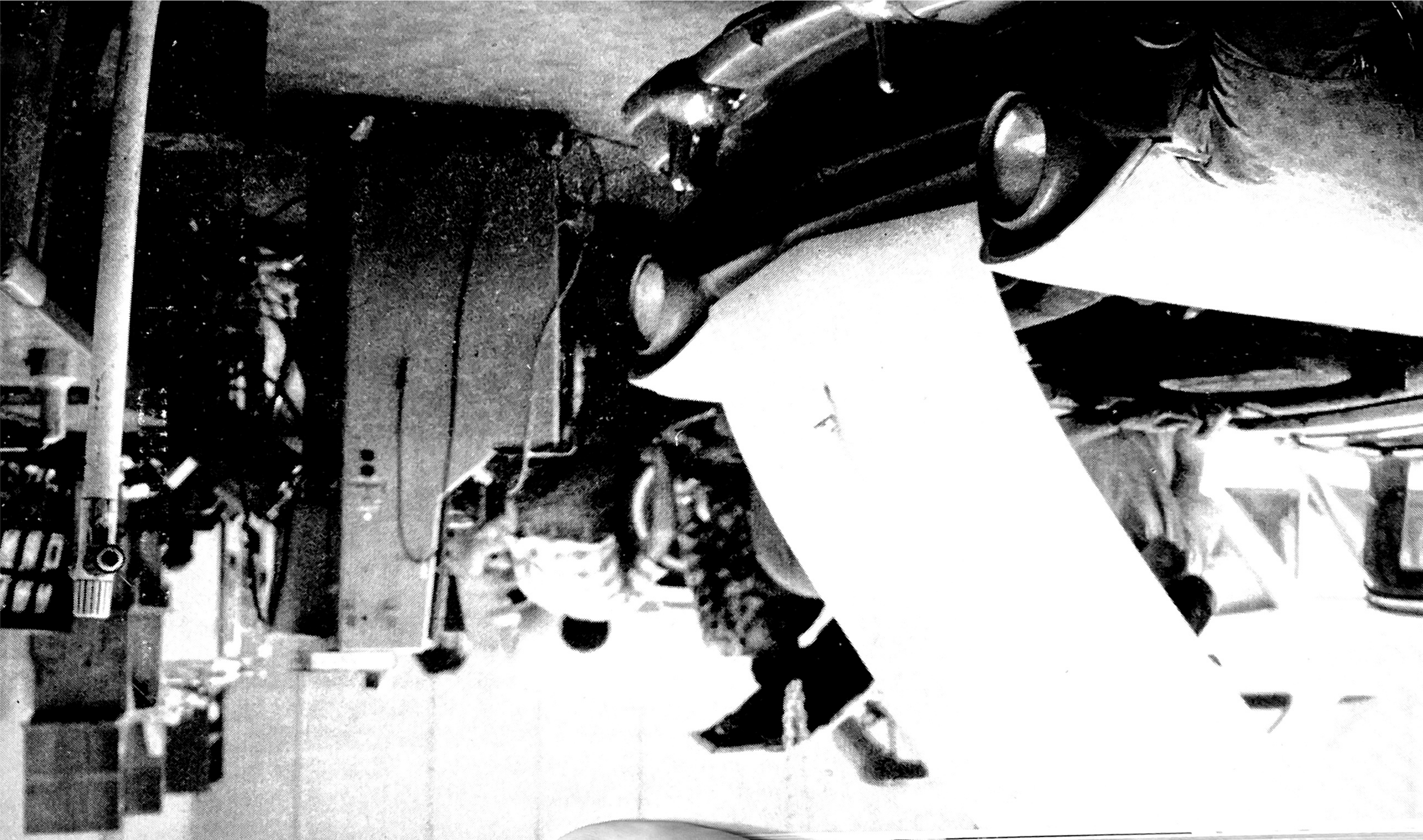
Active contacts are maintained throughout North Carolina with industries. Informative booklets, brochures, and industrial directories are available to students and alumni. Group and individual job interviews will be arranged.

Student Lounge

A refreshment and lounge area equipped with a variety of modern vending machines is provided for the convenience of students and faculty. Foods and drinks may not be carried into a classroom, shop, or laboratory.

Smoking

Smoking will be confined to designated areas inside and outside the building.



SCHOOL OF TRADES

The following areas of study are included in the School of Trades:

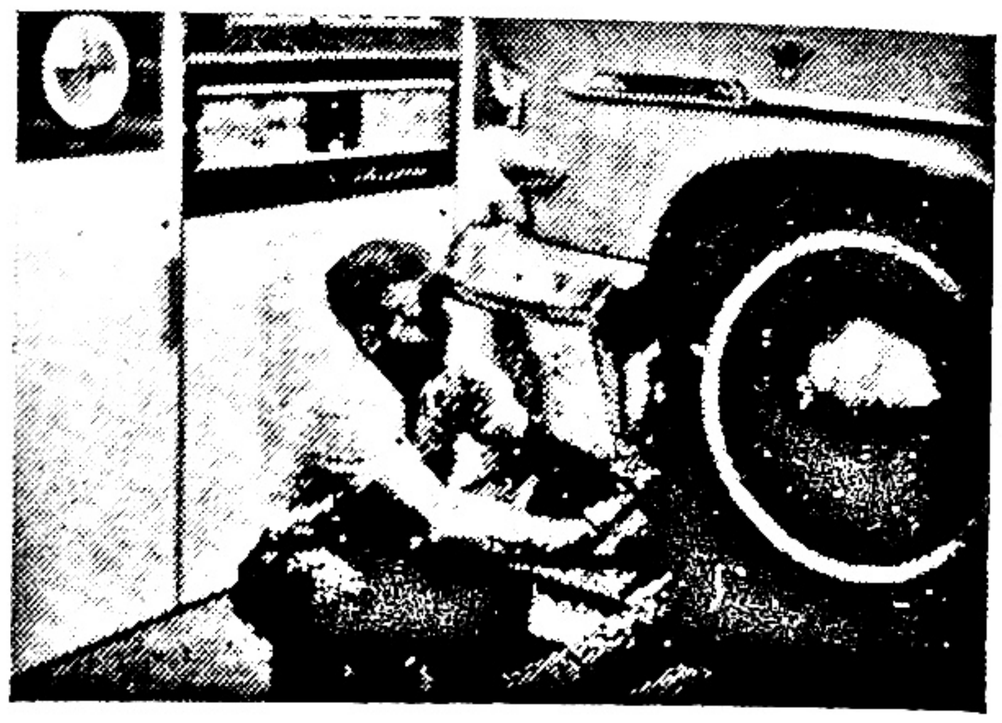
Automotive Mechanics
Radio and Television Servicing
Block and Brick Masonry
Secretarial Training
Mechanical Drafting

The School of Trade will offer a variety of courses on a 4 quarter basis. The areas of study reflect the employment opportunities in the Western part of North Carolina. These curriculums require one full year for completion. If a student elects to enroll in the School of Trades through extension because of his work load, the time required for completion will be doubled. The extension division will offer fifteen hours per week in a particular area of study. The full time schedule will require thirty hours per week.

The student enrolled in the School of Trades will spend most of his time in the shop working under actual industrial conditions. The rest of the time will be in the classroom and laboratory in related subjects. The School of Trades will require each student to demonstrate an ability to do work in his particular trade. Emphasis will be placed on becoming proficient in the use of machines, instruments, and other equipment related to a particular area of work.

Certain courses will be required of every student irrespective of his curriculum. These courses will enhance the student's ability toward his work. A thorough understanding of the American System of Economics as it relates to the free enterprise system and corporate structure will be required of every sudent.

AUTOMOTIVE MECHANICS



This is a one-year program providing a thorough training in the theoretical as well as manual skills in serving, testing, and diagnosing. All phases of the electrical system, the power plant, braking system, the power train will be studied.

The courses are arranged in a sequence that gives the student the required technological and special courses as they are needed to coordinate his laboratory experiences.

Emphasis is placed on the mechanical parts and operation of the various automobile units. Trouble shooting and servicing of the live project is also stressed.

OCCUPATIONAL OPPORTUNITIES

Auto Mechanics, Truck and Bus Mechanic, Shop Foreman, Maintenance Supervisor, Dealer, Service Manager, Sales Technician, Factory Representative, and Experimental Lab Work are among those occupational opportunities awaiting graduates of the Automotive Mechanic Curriculum.

Course	Class	Lab	Shop Practice	Credit
First Quarter				
AUT 1121 Automotive Theory and Practice	3	0	12	7
MAT 1121 Mathematics	5	0	0	5
ENG 1101 Reading Improvement	2	0	0	2
PHY 1104 Physics	1	2	0	2
	11	2	12	16
Second Quarter				
AUT 1122 Automotive Theory and Practice	3	0	12	7
PHY 1105 Applied Physics	1	2	0	2
ENG 1102 Communication Skills	2	0	0	2
DFT 1121 Blueprint Reading	3	0	0	3
	9	2	12	12
Third Quarter				
AUT 1123 Automotive Theory and Practice	3	0	12	7
AUT 1101 Small Engine Repair	3	0	0	3
SOC 1101 Human Relations	2	0	0	2
WLD 1112 Welding	0	0	3	1
PHY 1106 Applied Physics	1	2	0	2
	9	2	12	14
Fourth Quarter				
AUT 1124 Automotive Theory and Practice	3	0	9	6
SOC 1103 Management Procedures	3	0	0	3
AUT 1125 Automotive Testing and Service	3	0	9	6
	9	0	18	15

Automotive Mechanics

COURSE DESCRIPTION

AUT 1121 AUTOMOTIVE THEORY AND PRACTICE — ENGINES

Designed to give the student a thorough knowledge in the use, maintenance, and storage of the various tools and measuring devices needed in automotive work. A study of the construction and operation of components of automotive engines. The student will learn testing of engine performance; servicing and maintenance for pistons, valves, cams and camshafts, fuel and exhaust systems, cooling systems; proper lubrication; and methods of testing, diagnosing and repairing of failure and defects in the various engine mechanisms. Prerequisite: None.

AUT 1122 AUTOMOTIVE THEORY AND PRACTICE — ELECTRICAL AND FUEL SYSTEMS

A thorough study of the electrical and fuel systems of the automobile, the electrical system and its components; battery cranking mechanism, generator, ignition, accessories, and wiring. Intensive training in the components and operation of various types of automotive fuel systems. Characteristics of fuels and types of fuel systems for which they are best adapted. The special tools, circuits, and testing equipment for the fuel and electrical system are studied. Prerequisite: AUT 1121.

AUT 1123 AUTOMOTIVE THEORY AND PRACTICE — CHASSIS AND SUSPENSIONS

Principles and functions of the components of automotive chassis. Practical job instruction in adjusting and repairing of the suspension, steering, and braking systems. Units to be studied will be shock absorbers, springs, steering systems, steering linkage, front end adjustments, types and servicing of brakes, etc. Prerequisites: AUT 1121,1122.

AUT 1101 — SMALL ENGINE REPAIR

The purpose of this course is to teach the why and how of gasoline engine operations. A careful study of the theory and operating principles, plus actual practice in servicing and repairing engines will enable anyone to minimize engine troubles and to correct those troubles that do exist. The course will in general deal will small engines. Multicylinder engines will be included.

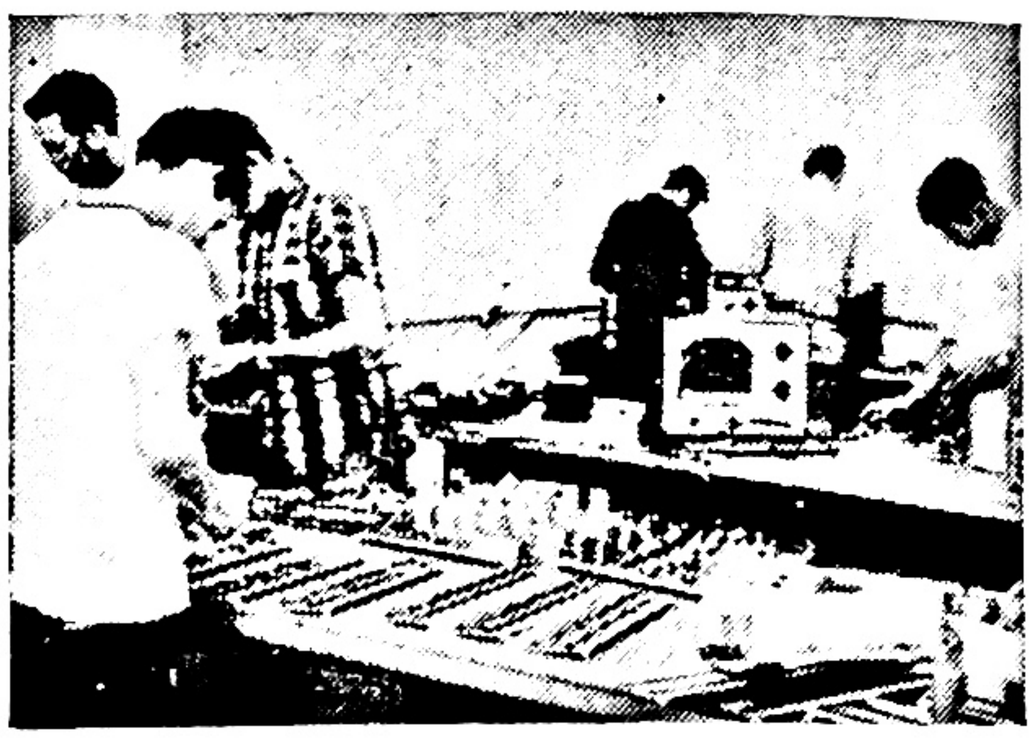
AUT 1124 AUTOMOTIVE THEORY AND PRACTICE —POWER TRAIN

Detailed analysis of the components of the automotive power train system, with the emphasis on identification of troubles which develop in these components and the correct servicing and repair. Included are: types of clutches, clutch operation, inspection and servicing clutches; functions of the transmission gears, principles and operation of the various transmission and torque converter types, service and repair; operation, diagnosis and servicing for drive shaft assemblies, rear axles, and differentials. Prerequisites: Phy 1105, 1106; AUT 1121, 1122, 1123.

AUT 1125 AUTOMOTIVE TESTING AND SERVICE

Emphasis is on the shop procedures necessary in determining the nature of troubles developed in the various component systems of the automobile. Extensive use of testing equipment will be made on the actual problem situations. A close simulation to the actual automotive shop will be maintained and every effort will be made to give the student a full range of testing and servicing experience. Prerequisites: AUT 1121, 1122, 1123, 1124.

RADIO AND TELEVISION SERVICING



This curriculum is designed to fill the tremendous need for radio and television repairmen. With the number of televisions increasing every year, the need for individuals to service and install these receivers is also increasing every year. This particular curriculum will start with the basic information as a foundation on which their advanced courses are established. The individuals enrolled in the school of radio and television repair will spend over half of their time in the laboratory with typical servicing and installation problems found in the field of work.

OCCUPATIONAL OPPORTUNITIES

Radio Serviceman, Television Serviceman, Radio and Television Salesman, Installation, and Manufacturer Representative.

Course	Class	Lab	Shop Practice	Credit
First Quarter				
MAT 1125 Electrical Math	5	0	0	5
ELC 1122 Direct and Alternating Current	7	8	3	12
ENG 1101 Reading Improvement	2	0	0	2
	14	8	3	19
Second Quarter				
ELN 1122 Vacuum Tubes and Circuits	5	10	0	10
ELN 1123 Amplifier Systems	2	0	6	4
ENG 1102 Communication Skills	2	0	0	2
SOC 1101 Human Relations	2	0	0	2
	11	10	6	18
Third Quarter				
ELN 1124 Vacuum Tubes and Circuits	4	4	0	6
ELN 1125 Radio Receiver Servicing	2	0	6	4
ELN 1126 Transistor Theory and Circuits	5	4	0	7
SOC 1103 Management Procedures	3	0	0	3
	14	8	6	20
Fourth Quarter				
ELN 1127 Television Receiver Circuits or	10	0	15	15
ELN 1128 Television Receiver Circuits and Servicing	5	0	12	9
Elective (1)	5	0	6	7
	10	0	18	16

ELECTIVE

ELN 1129 Single Side Band Systems 5 0 6 7

ELN 1130 Two-way Mobile maintenance 5 0 6 7

Radio and Television Servicing

COURSE DESCRIPTION

ELC 1122 DIRECT AND ALTERNATING CURRENT

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 by Ohm's law and Kirchoff's law; sources of direct current potentials. Fundamental concepts of alternating current flow; a study of reactance, impedance, phase angle, power and resonance and alternating current circuit analysis. Prerequisite: None.

ELN 1122 VACUUM TUBES AND CIRCUITS

An introduction to vacuum tubes and their development; the theory, characteristics and operation of vacuum tubes, semi-conductor diodes, rectifier circuits, filter circuits, triodes and simple voltage amplifier circuits.

ELN 1123 AMPLIFIER SYSTEMS

An introduction of commonly used servicing techniques as applied to monophonic and stereophonic high fidelity amplifiers and auxiliary equipment. The operation and servicing of intercommunication amplifiers and switching circuits will also be taught.

ELN 1124 VACUUM TUBES AND CIRCUITS

A continuing study of tubes and circuits; the theory, characteristics, and operation of the tetrode and pentode tubes, voltage, and power amplifiers, tunable RF Amplifiers, oscillators and demodulator circuits.

ELN 1125 RADIO RECEIVER SERVICING

Principles of radio reception and practices of servicing; included are block diagrams of radio receivers, servicing techniques of AM and FM receivers by resistance measurements, signal injection, voltage, analysis, oscilloscope methods of locating faulty stages and components, and the alignment of AM and FM receivers.

ELN 1126 TRANSISTOR THEORY AND CIRCUITS

Transistor theory, operation, characteristics and their application to audio and radio frequency amplifier and oscillator circuits.

ELN 1127 TELEVISION RECEIVER CIRCUITS

A study of principles of television receivers, alignment of radio and intermediate frequency amplifiers, adjustment of horizontal and vertical sweep circuits will be taught. Techniques of trouble shooting and repair of TV receivers with the proper use of associated test equipment will be stressed. Additional study of more specialized servicing techniques and oscilloscope waveform analysis will be used in the adjustment, trouble-shooting and repair of the color television circuits.

ELN 1128 TELEVISION RECEIVER CIRCUITS

This course, taught in conjunction with an elective, will be a shortened version of ELN 1127.

ELN 1129 SINGLE SIDE-BAND SYSTEMS

An inductory course of single side-band transmission systems with carrier frequency or without and the associated balanced modulator or phasing system used to produce this type of transmission. Time will be allotted also to the necessary circuity in the receiver to receive this type transmission.

ELN 1130 TWO-WAY MOBILE MAINTENANCE

A course to acquaint the student with the theory and maintenance of fixed station and mobile station transmitters and receivers. Except for radio laws, sufficient information will be given to qualify the student to take the FCC second class radiotelephone license examination.

BRICK AND BLOCK MASONRY

This curriculum is designed to give students knowledge and practice in the fundamentals of masonry. Students begin with mortar spreading and laying to the line, and progress through corner building, chimney and fireplaces and ornamental work.

Masonry students take related courses in blue print reading, mathematics, English, carpentry and the mechanical trades in building.

OCCUPATIONAL OPPORTUNITIES

With the tremendous growth of industries and the volume of masonry being used for building, employment is no problem. Opportunities are found with private builders, general contractors or your own business after several years experience.

Course—Title	Class Hours Per Week	Lab Hours Per Week	Shop Practice Hours Per Week	Qtr. Hrs. Credits
First Quarter				
DFT 1121 Blueprint Reading	3	0	0	3
MAT 1121 General Math	5	0	0	5
ENG 1101 Reading Improvement	2	0	0	2
MAS 1121 Masonry I	5	0	10	8
	15	0	10	18
Second Quarter				
DFT 1122 Blueprint Reading	5	0	0	5
MAT 1120 Geometry	3	0	0	3
MAS 1111 Related Carpentry	1	0	0	1
MAS 1122 Masonry II	5	0	0	5
MAT 1000 Estimating	5	0	10	8
	19	0	10	22
Third Quarter				
DFT 1307 General Drafting	1	4	0	3
MAT 1123 Trig.	5	0	0	5
MAS 1123 Masonry III	5	0	15	10
	11	4	15	18
Fourth Quarter				
SOC 1101 Human Relations	2	0	0	2
MAT 1126 Algebra & Trig.	5	0	0	5
MAT 1200 Advanced Estimating & Layout	5	0	0	5
MAS 1124 Masonry IV	2	0	13	6
	14	0	13	18

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MAS 1111

The student will study the various methods of frame construction, standard sizes of framing material, methods of joining framing members to masonry and simple form work. A study will be made of the use of the framing square and the identification and sizes of nails and other fasteners.

MAS 1121

History of brick. Spreading mortar. Block laying. Simple leads and laying brick to the lines. Mortar mixing techniques. Use and care of tools. Safety. Motion study. Basic unwritten laws of the masonry trade. Masonry definitions. Joining. Classification of brick.

MAS 1122

Types of bonds. Bond layout. Corner building. Reading the masons rule. Related carpentry. Related electricity. Related plumbing. Development of speed in the basic skills.

MAS 1123

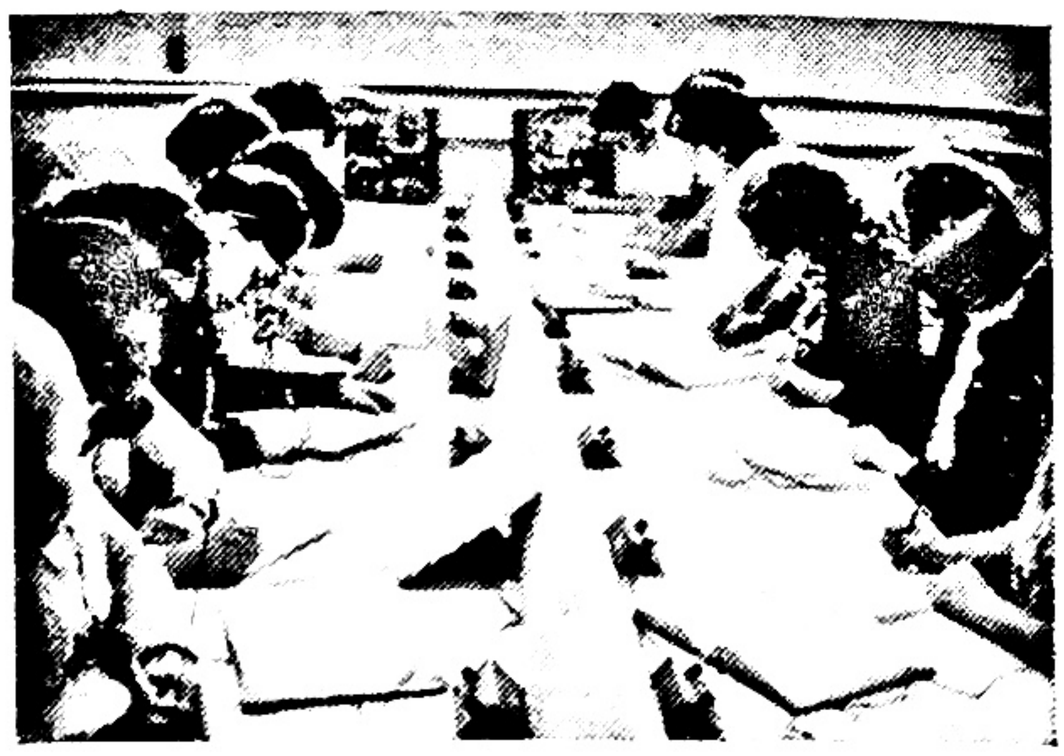
Estimating. Use of masonry saw. Patterns and ornamental bonds. Laying all types of brick and block. Laying window sills. Economics of the masonry trade.

This particular course is designed to help the mason understand the types of plumbing and heating systems that are used in modern building construction. The requirements to special framing on the part of the mason will be practiced.

MAS 1124

Building layout. Use of transit. Arches, fireplaces and chimneys. Study of recent developments in the masonry trade. Structural clay tile. Precast stone. SCR brick. Development of speed in all phases of the masonry trade.

SECRETARY – STENOGRAPHER



This is a one-year program designed to provide students with the opportunity to study and obtain skills, knowledge and procedures that will qualify them for the position of Secretary-Stenographer. Courses are organized to enable the student to place the knowledge that has been gained in the classroom to practical use through laboratory work.

OCCUPATIONAL OPPORTUNITIES

Occupational opportunities to be found are: typist, stenographer, receptionist, transcribing machine operator, secretary, correspondent clerk and assistant in professional office.

Course Title	Course Class	Hours Lab	Per Week Shop Practice	Qtr. Hrs. Credits
First Quarter				
BUS 1110 Typing	3	7	0	6
BUS 1109 Shorthand	3	7	0	6
ENG 1101 Reading	2	0	0	2
MAT 1112 Business Math	5	0	0	5
	13	14	0	19
Second Quarter				
ENG 1102 Comm. Skills	2	0	0	2
BUS 1111 Statistical Typing	1	4	0	3
BUS 1113 Shorthand	1	4	0	3
BUS 1115 Business Machines	2	2	0	3
BUS 1117 Accounting	2	2	0	3
BUS 1120 Office Procedures	2	2	0	3
	10	14	0	17
Third Quarter				
ISC 1102 Industrial Organization	3	0	0	3
ENG 1103 Report Writing	2	0	0	2
BUS 1112 Statistical Typing	1	4	0	3
BUS 1114 Shorthand	3	2	0	3
BUS 1116 Business Machines	2	3	0	3
BUS 1118 Accounting	2	3	0	3
	14	12	0	19
Fourth Quarter				
SOC 1101 Human Relations	2	0	0	2
BUS 1118 Typing	1	4	0	3
BUS 1119 Dictation	2	3	0	3½
BUS 1121 Office Procedures	3	2	0	4
BUS 1166 Budget & Record Keeping	2	3	0	3½
Bus Law				
	10	12	0	16

BUS 1109 SHORTHAND

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

BUS 1113 AND 1114 SHORTHAND

Continued study of theory with greater emphasis on dictation for transcription.

BUS 1119 TECHNICAL DICTATION

Development of shorthand power through sustained dictation at high speed. Additional work in specialized phrasing and shortcuts is included. Emphasis is placed on training the student for stenographic work on a production basis.

BUS 1110 TYPING

Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation and manuscripts.

BUS 1111, 1112 AND 1118 STATISTICAL TYPING

Emphasis on speed and accuracy, and to the development of individual production rates.

BUS 1112 BUSINESS MATHEMATICS

Mathematical operations and their applications to business: payrolls, price marking; simple and compound interest, discount; commission; inventory; insurance; taxes; and other mathematics in business.

BUS 1115 AND 1116 BUSINESS MACHINES

Students will become familiar with various office machines associated with secretarial duties. Instruction will include the care, use, and practice on ten key adding machines, rotary calculators, key driven calculators, fluid process duplicators, mimeograph, dictating and transcribing machines. Established procedures, practices and standards found in modern business offices are emphasized.

BUS 1117 ACCOUNTING I

An introduction to the elements of accounting and general accounting principles is integrated with practice in the use of special journals, with respect to single proprietorship, merchandising inventory and sales, accounting for cash, banking procedures, payroll accounting, and accounting for a retail store.

BUS 1118 ACCOUNTING II

A detailed study of the periodic summary, work sheet, trial balance, adjustments and closing procedures at the end of an accounting period. An opportunity to apply all accounting principles and procedures of a sole proprietorship through the use of a practice set.

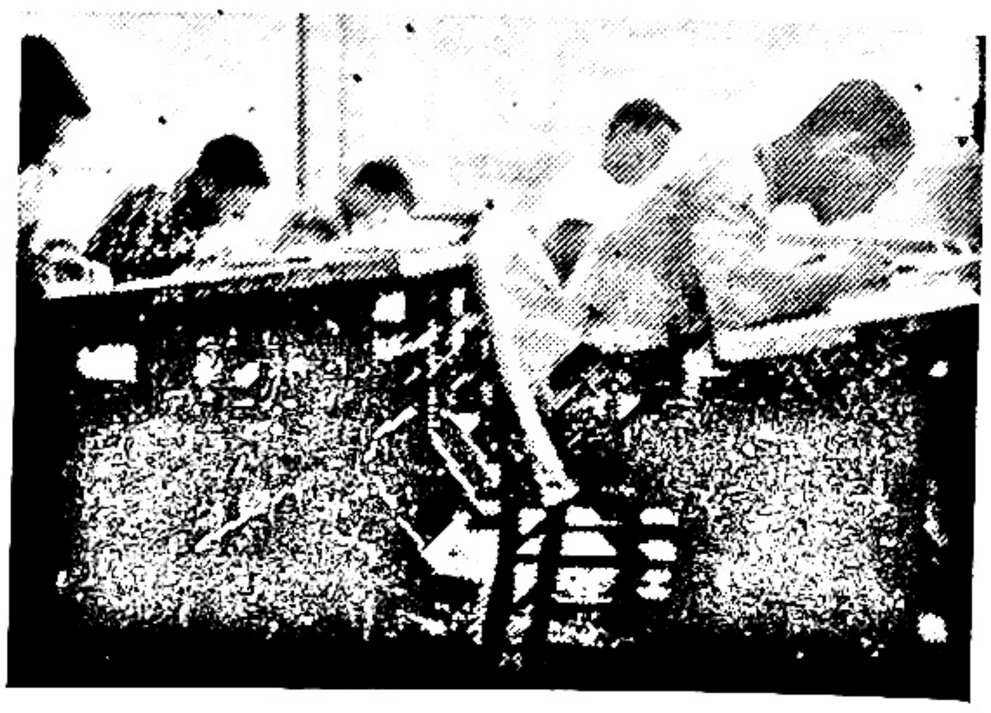
BUS 1120 AND 1121 OFFICE PROCEDURES

Designed to acquaint the student with the responsibilities encountered by a secretary during the workday. These include the following: receptionist duties, filing, handling the mail, telephone techniques, travel information, telegrams, office records, purchasing of supplies, office organization, and insurance claims.

BUS 1166 BUDGET AND RECORD KEEPING

The basic principles, methods and procedures for preparation and operation of budgets. Special attention is given to the involvement of individual departments and the role they play. Emphasis on the necessity for accurate record keeping in order to evaluate the effectiveness of budget planning.

DRAFTING – MECHANICAL



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

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: makes final sketch of the proposed drawing, checking dimension of parts, materials to be used, the relation of one part to another, and the relation of the various parts to the whole structure. Makes any adjustments or changes necessary or desired. 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 drawing and traces drawing in pencil or ink. Makes charts for representation of statistical data. Makes finished designs from sketches. Utilizes knowledge of various machines, engineering practices, mathematics, building materials, and other physical sciences to complete the drawings.

Mechanical draftsman performs the general duties of a draftsman and also specializes in making rough drafting sketches of proposed mechanical devices, and then drawing necessary details. Prepares accurate scale drawings of parts or machines from specifications. Performs the general duties of a draftsman and also specializes in organizing and drawing of working drawings from final preliminary sketches from the designer, mechanical equipment and structural drawings included.

COURSE DESCRIPTION BY QUARTERS

First Quarter

	Hours Per Week Class	Lab	Qtr. Hrs. Credit
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 drawings of principal views, single auxiliary views (primary), and double (oblique) auxiliary views will be emphasized. Dimensioning and note practices will be studied with reference to the American Standards Association practices. Methods of reproducing drawings will be included at the appropriate time. Prerequisite: None.

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.

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.

PHY 1101 APPLIED SCIENCE	3	2	4

An introduction to physical principles and their application to industry. Topics in this course include measurement; properties of solids, liquids, and gases; basic electrical principles. Prerequisite: None.

Second Quarter

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 are problems dealing with solid geometry theorems. Where applicable, each graphical solution shall be accompanied by the analytical solution. Prerequisite: DFT 1121.

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, ration and proportions, variation; graphical and algebraic solution of first degree equations; solution of simultaneous equations by: addition and subtraction, substitution, graphing; exponents, logarithms, tables and interpolation. 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.

PHY 1102 APPLIED SCIENCE 3 2 4

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. Prerequisites: PHY 1101.

Third Quarter

DFT 1131 MECHANICAL DRAFTING 3 12 7

An introduction to mechanical drafting beginning with problems concerning precision and limit dimensioning. Methods of 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 the study of basic mechanisms of motion transfer; gears, cams, power trains, pulleys, belting and methods of specifying and calculating dimensions will be studied. Drawings will be made involving these mechanisms. Prerequisite: DFT 1122.

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; inverse functions, trigonometric equations. All topics are applied to practical problems. Prerequisites: MAT 1102, MAT 1103.

PSY 1101 HUMAN RELATIONS 3 0 3

A study of basic principles of human behavior. The problems of the individual are studied in relation to society, group membership, and relationships within the work situation. Prerequisite: None.

MEC 1113 SHOP PROCESSES 2 3 3

Study of practices used in metalworking shops: introduction to how materials can be utilized, and to the processes of shaping, forming, and fabricating of metals. Demonstration of the metalworking lathes, grinders, drills, milling machines, shapers, planers, saws, broachers, gear cutting machines and finishing machines. A study of the capabilities of these machines. Prerequisite: None.

DFT 1141 BUILDING TRADES DRAFTING 2 3 3

An introduction to architectural drafting. Further development of techniques in lettering, dimensioning, freehand sketching and instrument drawing. Drawing of construction details, using appropriate material symbols and conventions. Working drawings, including plans, elevations, sections, scale details and full-size details will be prepared from preliminary sketches. Prerequisites: DFT 1122.

Fourth Quarter

DFT 1142 BUILDING TRADES DRAFTING 3 12 7

Individual and group participation in the preparation of complete working drawings for a complex architectural structure. Study of drafting room organization and relationships of personnel within the architectural office. Prerequisites: DFT 1141, DFT 1143, DFT 1144.

DFT 1145 SPECIFICATIONS AND CONTRACTS 3 0 3

The purpose and writings 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. Prerequisites: DFT 1141, DFT 1143, DFT 1144.

CIV 1101 SURVEYING 2 3 3

Basic instrumentation and topography will be studied together with field trips and drafting room application of site surveying. Prerequisite: MAT 1104.

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.

RELATED COURSES

COURSE DESCRIPTION

DFT 1121 BLUEPRINT READING

Interpretation and reading of blueprints used by industry. A course designed to develop the ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Information on the basic principles of lines, views, dimensioning procedures, and notes. Prerequisite: None

DFT 1122 BLUEPRINT READING

Interpretation and reading of blueprints used by industry. Information on basic principles of the blueprint; lines, views, dimensioning procedures and notes. Prerequisite: None.

DFT 1123 BLUEPRINT READING

Further practice in interpretation of blueprints as they are used in industry; study of prints supplied by industry; making plans of operations; passing on ideas, information, and processes. Prerequisite: DFT 1122.

DFT 1307 GENERAL DRAFTING

An introductory course in drafting for students needing a knowledge of drawing principles and practices for reading describing objects in the graphic language. The student is expected to gain basic skills in drawing with instruments, lettering, geometrical constructions, freehand sketching, and describing objects orthographically with principal views. Freehand sketching and orthographic reading are to be emphasized.

ELC 1122 DIRECT AND ALTERNATING CURRENT

A study of the electrical structure of matter and the electron theory, the relationship between voltage, current and resistance in series, parallel and series-parallel circuits. Time will be devoted to the analysis of direct current circuits by Ohm's law and Kirchoff's law; time will be alloted for the study of sources of direct current potentials. Fundamental concepts of alternating current flow; a study of reactance, impedance, phase angle, power and resonance. Time will be allotted for alternating current circuit analysis.

ENG 1101 READING IMPROVEMENT

A concentrated effort to improve the student's ability to comprehend what he reads by training him to read more rapidly and accurately. The tachistoscope is 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. Reading faults of the individual are analyzed for improvement, and principles of vocabulary building are stressed.

ENG 1102 COMMUNICATION SKILLS

Development to the trainee's ability to communicate effectively with other individuals through the medium of good language usage in speaking and writing, to think more clearly, and to reason more forcefully in work problems pertaining to his job.

ENG 1103 REPORT WRITING

Brief review of English grammar, spelling, and punctuation. Concentrated effort will be applied to the fundamentals of good writings; 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.

ISC 1102 INDUSTRIAL ORGANIZATIONS

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.

MAT 1000 ESTIMATING

This course is designed to give the student a basic understanding of estimating building materials from a blueprint, with emphasis on his major field.

MAT 1120 FUNDAMENTALS OF MATHEMATICS

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.

MAT 1121 MATHEMATICS

Review of fundamental number concepts, operations, and systems of measurement. Mathematical situations dealing with common and decimal fractions, powers and roots, ratio and proportions, and percentages. A study of algebraic and geometric principles and concepts needed in understanding calculations, formulas, solution of equations, and selected plane and solid geometric forms. Prerequisite: None.

MAT 1122 MATHEMATICS

Foundation for a better understanding of applied mathematics. This course is a review of simple mathematical situations dealing with fractions, decimals, conversion of one to the other, short methods and checks, percentages and applications, ratio and proportion, and powers and roots. It will also present an introduction to axiomatic solution of equations and includes special products and factoring, algebraic fractions and their applications to equations. Prerequisites: None.

MAT 1123 MATHEMATICS

Fundamental geometric concepts and construction of plane and solid figures, surface and volume measurements, and related problems; introduction to trigonometry of the right triangle. Introduces gear ratio, lead screw and indexing problems with emphasis on application to the machine shop. Practical applications and problems will furnish the trainee with experience over the wide range of geometric propositions and trigonometric relations in shop problems, concluded by an introduction to compound angle problems. Prerequisite: MAT 1122.

MAT 1124 ALGEBRA

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, variation; graphical and algebraic solution of first degree equations; solution of simultaneous equations by: addition and subtraction, substitution, graphing; exponents, logarithms, tables and interpolation.

MAT 1125 ELECTRICAL MATHEMATICS

To acquaint the student with the fundamental concepts of algebra; basic operations of addition, subtraction, multiplication and division are covered; time is spent in the solution of first order equations, use of letters and signs, grouping, factoring, exponents, ratios, proportions. Solution of equations, both algebraicallly and graphically; a study of logarithms and use of tables. An introduction to trigonometric functions and their application to right triangles; a study of vectors for use in alternating current.

MAT 1126 TRIGONOMETRY

Trigonometric ratios; solving problems with right triangles, using tables, and interpolating; solution of oblique triangles using law of sines and law of cosines; graphs of the trigonometric functions; inverse functions, trigonometric equations. All topics are applied to practical problems.

MAT 1200 ADVANCED ESTIMATING AND LAYOUT

This course is designed to give detailed methods of estimating and use of the builders level and transit in layout work. Prerequisite: MAT 1000.

WLD 112 WELDING

Demonstration by the instructor and practice by student in the welding shop. Safe and correct methods of assembly and operating the welding outfit will be emphasized. Practice will be given for surface welding, bronze welding, silver brazing, and flame cutting methods applicable to mechanical repair work. Prerequisite: None.

WLD 1114 SHOP PROCESSES

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: WLD 1112.

PHY 1104 APPLIED PHYSICS I

Introductory course in physics and its applications. Covers systems of measurement, theory of matter, properties of solids, liquids, and gases. Prerequisite: None.

PHY 1105 APPLIED PHYSICS II

Basic principles of electricity, types of electricity, and its production, transmission, and transformation. Such factors as the electron theory, electrical measurement, magnetism, electromagnetism, and the magnetic effects of electricity constitute major areas of study.
Prerequisite: PHY 1104.

PHY 1106 APPLIED PHYSICS III

Physical principles of force, energy, work and power; equilibrium and the laws of motion; principles of machines, mechanical advantage, and transmission of power in practical applications and the use of vectors and graphical presentations.

SOC 1101 HUMAN RELATIONS

The purpose of the course is to help the student acquire greater understanding of his relations to other persons through learning and applying some of the basic principles of human psychology. The problems of the individual and his work situation are studied in relation to the established organization of modern business and industry and in relation to government practices and labor organization, with special emphasis on the operating responsibilities of good management.

SOC 1103 MANAGEMENT PROCEDURES

Management procedures are developed to familiarize the prospective businessman with the many important functions that must be carried on in the operation of a small business or enterprise. 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 are some of the subjects studied.

SCHOOL OF TECHNOLOGY

The following area of study is included in the school of technology:

Business Administration

The area of study in the School of Technology is two years in duration and will require from twenty to thirty hours per week of course work. If a student elects to enroll in the School of Technology through extension because of his work load, the time required for completion will be doubled. The extension or evening school division will offer fifteen hours per week in an area of study.

In addition to regular classroom work each student will be required to spend additional time on outside work assignments.

The School of Technology will require each student to become fully aware of the latest methods employed in the businss world.

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 every phase of administrative work that might be encountered in the average business.

A.A.S. Degree Conferred

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 and skill in effective communication for business.
3. Knowledge of human relations as they apply to the successful operations in the rapidly expanding economy.

Occupational Opportunities

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 manager in supervising. Positions are available in businesses such as advertising; banking; credit; finance; retailing; wholesaling; hotel, tourist, and travel industry; insurance; transportation; and communications.

BUSINESS ADMINISTRATION

SUGGESTED SEQUENCE OF REQUIRED COURSES

Course Title	Course Hours Per Week Class	Lab.	Qt. Hrs. Credit
First Quarter			
T-ENG 102 Report Writing	3	0	3
T-BUS 102 Typewriting (Or Elective)*	2	3	3
T-MAT 110 Business Mathematics	3	0	3
T-BUS 101 Introduction to Business	3	0	3
T-BUS 151 Business Law	3	0	3
T-BUS 117 Sales Development	3	0	3
	17	3	18
Second Quarter			
T-ENG 103 Technical Report Writing	3	0	3
T-BUS 120 Accounting	5	2	6
T-BUS 152 Business Law	3	0	3
T-ECO 105 Economics	3	0	3
T-BUS 139 Marketing	3	0	3
	17	2	18
Third Quarter			
T-ENG 106 Letter Writing	3	0	3
T-BUS 155 Interpreting Accounting Records	3	0	3
T-ECO 104 Economics	3	0	3
T-BUS 116 Retailing	3	0	3
T-BUS 128 Business Insurance	3	0	3
T-BUS 160 Office Machines	2	2	3
	17	2	18
Fourth Quarter			
T-ENG 207 Oral Communications	3	0	3
T-BUS 264 Business Finance	3	0	3
T-BUS 266 Budget and Record Keeping	3	0	3
T-BUS 211 Introduction to Data Processing Systems	3	2	4
T-BUS 237 Wholesaling	3	0	3
Elective**	3	0	3
	18	2	19
Fifth Quarter			
T-ENG 204 Public Speaking	3	0	3
T-BUS 265 Business Finance	3	0	3
T-BUS 227 Advertising	3	2	4
T-BUS 235 Business Management	3	0	3
T-PSY 210 Applied Psychology	3	0	3
Elective**	3	0	3
	18	2	19
Sixth Quarter			
T-BUS 268 Taxes	3	0	3
T-BUS 233 Personnel Management	3	0	3
T-BUS 232 Sales Promotion Management	3	0	3
T-BUS 272 Principles of Supervision	3	0	3
Elective**	6	0	6
	18	0	18

* Elective courses must be selected from the business education curriculum.

** Elective courses must be selected from the technical curricula.

Course Title	Course Hours Per Week Class	Lab.	Qt. Hrs. Credit
T-ENG 102 REPORT WRITING	3	0	3

Intensive study of and practice in effective expository writing, principles of grammar, punctuation, and organization.

T-BUS 102 TYPEWRITING	2	3	3

The touch system is taught. Proper manipulation of the keyboard and the operation of the machine are given special attention. Not required if student had one year in high school.

T-MAT 110 BUSINESS MATHEMATICS	3	0	0

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.

T-BUS 101 INTRODUCTION TO BUSINESS	3	0	3

A survey of the business world with particular attention devoted to the structure of the various types of business organizations, methods of financing, internal organization, and management.
Prerequisite: (To be taken in first possible quarter.)

T-BUS 151 BUSINESS LAW	3	0	3

A general course designed to acquaint the student with certain fundamental principles of business law, covering contracts, negotiable instruments, and agency.

T-BUS 117 SALES DEPARTMENT	3	0	3

A study of retail, wholesale, and speciality selling. Emphasis is placed upon mastering and applying the fundamentals of selling.

T-ENG 103 TECHNICAL 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 and 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 course.
Prerequisite: T-ENG 102.

T-BUS 120 ACCOUNTING	5	2	6

Principles, techniques, and tools for understanding the mechanics of accounting-collecting, summarizing, analyzing, and reporting information about service and mercantile enterprises; practical application of the principles learned.

T-BUS 152 BUSINESS LAW	3	0	3

The study of bailments, sales risk-bearing, partnership-corporation, and property. Prerequisite: BUS 151.

T-ECO 102 ECONOMICS	3	0	3

Basic economics with attention to central problems of price, competition, and money; supply and demand; business organizations; firm and family income; labor and industrial relations; government and the economy; gross national product; relationship of income to expenditures; business cycles.

T-BUS 139 MARKETING	3	0	3

A general survey of the field of marketing, with a detailed study of the functions, policies, and institutions involved in the marketing process.

T-ENG 106 LETTER WRITING	3	0	3

A course in writing purposeful, correct letters through experience in analyzing problem situations. Particular attention to letters involving credit, collections, complaints, orders, acknowledgements, remittances, and inquiry is also included in this course. Prerequisite: T-ENG 102.

T-BUS 155 INTERPRETING ACCOUNTING RECORDS 3 0 3

Designed to aid the student in developing a "use understanding" of accounting records reports, and financial statements.

T-ECO 104 ECONOMICS 3 0 3

Historical development of economic thought; creation of money; banking and the Federal Reserve System; monetary and fiscal policy; price, utility, and costs in selected industries; competition and monopoly.

T-BUS 116 RETAILING 3 0 3

A study of the role of retailing in the economy including development of present retail structure, functions performed, principles governing effective operation, and managerial problems resulting from current economic and social trends.

T-BUS 128 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.

T-BUS 160 OFFICE MACHINES 2 2 3

A general survey of business and office machines. A working knowledge of the ten-key and full keyboard adding machines, printing calculators, and duplicating equipment.

T-ENG. 207 FUNDAMENTALS OF ORAL COMMUNICATION 3 0 3

Principles of effective communication with emphasis upon self-expression in conversation, interviewing, delegating, and accepting, understanding, listening, questioning, conferences and vocabulary.

T-BUS 264 BUSINESS FINANCE 3 0 3

Financing of business units as individuals, partnerships, corporations, and trusts; a detailed study of the organization, management, and financing of businesses.

T-BUS 266 BUDGET AND RECORD KEEPING 3 0 3

The basic principles, methods, and procedures for projection, preparation, and operation of budgets. Special attention is given to the involvement of individual departments and the role they play. Emphasis is placed on the necessity for accurate record keeping in order to evaluate the effectiveness of budget planning. Prerequisite: T-BUS 120.

T-BUS 211 INTRODUCTION TO DATA PROCESSING SYSTEMS 3 2 4

Fundamental concepts and operational principles of data processing systems, as an aid in developing a basic knowledge of computers.

T-BUS 237 WHOLESALING 3 0 3

The development of wholesaling; present day trends in the United States; a study of the functions of wholesaling.

T-ENG 204 PUBLIC SPEAKING 3 0 3

Study of the mechanics of speech; adaptation of method to purpose in speaking; preparation of specific kinds of speeches; presentation of extemporaneous, impromptu, prepared, and memorized material. Prerequisite: T-ENG 207 or consent of instructor.

T-BUS 265 BUSINESS FINANCE 3 0 3

A more advanced course designed to give the student a practical knowledge of the different kinds of stocks and bonds, mortgages, working capital, sinking funds, capitalization, sales of securities, surplus, and dividends. Prerequisite: T-BUS 264.

T-BUS 227 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. Theory and practice of writing advertising copy for various media.

T-BUS 235 BUSINESS MANAGEMENT 3 0 3

Principles of business management, including overview of major functions of management: planning staffing controlling, directing, and financing. Clarification of the decision making function versus the operating function. Role of management in business—qualifications and requirements.

T-PSY 210 APPLIED PSYCHOLOGY 3 0 3

This course studies the procedures of building an efficient, enthusiastic business team and with the nature of the problems which arise in business organizations. The individual and his behavior are discussed, as well as the problems of influence and authority.

T-BUS 268 TAXES 3 0 3

A study and application of federal, state, and local taxes in various business and business conditions, including payroll, intangible, income, real estate, capital gain, sales and use, excise and inheritance taxes.

T-BUS 233 PERSONNEL MANAGEMENT 3 0 3

Covers principles of organization and management of personnel: procurement placement training, performance checking, supervision, remuneration, labor relations, fringe benefits, and security.

T-BUS 232 SALES PROMOTION MANAGEMENT 3 0 3

The scope and activities of sales promotion with emphasis on the coordination of advertising, display, special events, and publicity, external and internal methods of promoting business, budgeting, planning, and implementing the plan. Prerequisite: T-BUS 227.

T-BUS 272 PRINCIPLES OF SUPERVISION 3 0 3

Introduces the basic responsibilities of the supervisor and how he should implement them. The relationship of the supervisor to the production process; how to do the job well; opportunities for the future.

BASIC ADULT

EDUCATION

TYPES OF PROGRAMS

General Information

REGISTRATION

Students may register at the Admission Office at Jackson County Industrial Education Center, Webster Road, Sylva, North Carolina.

ELIGIBILITY

Persons 18 years old or over will be eligible to take these courses. Prerequisite courses will be indicated in the course descriptions.

COSTS

A nominal tuition fee may be charged to defray the expense of registration and enrollment, and also for supplies.

Students will be expected to purchase the necessary textbooks.

All fees for books, tuition, and supplies are due and payable at the beginning of the course.

TIME OF CLASS MEETINGS

Classes may meet between the hours of 8:30 A.M. and 10:00 P.M. on weekdays and evenings, once or twice weekly. Class periods will customarily be two or three hours in length. A schedule showing meeting nights and hours will be available as soon as possible after registration.

WHEN COURSES WILL BEGIN

Following registration, classes will begin as soon as an instructor is secured. Every effort will be made to avoid conflicts and to arrange courses for the convenience of students. Students who complete registration will be notified when classes begin.

Types of Programs

Students may choose one of three types of programs in scheduling courses.

1. Full-time Preparatory: This is a program organized for adults and out-of-school youth who desire to pursue a technical or trade preparatory course on a full-time basis. Classes, laboratories, and shop periods are scheduled for a minimum of six hours a day.

2. Part-time Preparatory: Adults and out-of-school youth may enroll for a trade preparatory or technical course on a part-time basis with classes scheduled at night. This program requires a minimum of three hours daily or five days a week in classroom, shop, and laboratory.

3. Adult Evening Extension, Upgrading, and Updating: This program is organized for apprentices, trainees, tradesmen, mechanics, industrial workers, agricultural workers, farmers, sales and marketing personnel, pesticide handlers, and manufacturers and distributors of agricultural products. Classes are offered at night in such courses as Blueprint Reading, Practical Mathematics, Drafting, Welding, Electricity, Automatic Transmissions, National Electric Code, National Plumbing Code, Pesticides, Fertilizers, Gas and Diesel Engines, Farm Management, Farm Records and Accounts, Swine Production, Farm Credit, Salesman Techniques, Practical Nursing, Business Law, Feed Mill Operation, and Grain Handling. Courses usually last from 18 to 144 clock hours and meet at least two evenings weekly.

Other Classes

1. Supervisory Development Training: Classes in such subjects as Quality Control, Reading Improvement, Job Instruction, Job Methods, and Job Relations are provided for management, mid-management, supervisors, foremen, and foreladies in trades or industry.

2. Fire Service Training: Fire fighting techniques, pump operations, and fire control methods are taught by certified instructors in this organized instruction in fire service training, especially designed for volunteer fire departments.

4. New and Expanding Industry Classes: This program is designed to assist in training workers to staff new or expanding industry.

5. Adult Basic Education

Supervisory Development Training Program

In an effort to meet the needs of North Carolina industry, a Supervisory Development Training Program has been developed by the Department of Community Colleges.

The Supervisory Development Training Program has been developed to train persons interested in becoming supervisors and to provide instruction for supervisors at various levels of management as preparation for advancement.

Programs Available to Supervisors

I. Individual Course Program
II. Block of Course Program
III. Supervisory Development Training Diploma Program

Requirements for Certificates and Diploma

Certificates and diplomas for supervisory training are awarded on the basis of the following: (1) official enrollment, (2) class participation in discussions and projects, and (3) regular attendance. Certificates and diplomas cannot be awarded to those whose attendance is less than eighty per cent of the clock hours assigned to each course.

SDT Courses Currently Available:

Course No.	Course Title	Hours
SDT-1:	Principles of Supervision	44-48
Part 1	Fundamentals of Supervision	6-8
Part II	Relationships on the Job	8-10
Part III	Communications	6-8
Part IV	How to Train Workers	6-8
Part V	Performance and Job Evaluation	6-8
Part VI	Job Management	6
Part VII	Work Improvement	6
SDT-2:	Human Relations I	10
SDT-3:	Human Relations II	22
SDT-4:	Art of Motivating People	22
SDT-5:	Economics in Business and Industry	22
SDT-6:	Effective Communications	22
SDT-7:	Effective Writing	22
SDT-8:	Effective Speaking	15
SDT-9:	Reading Improvement	15
SDT-10:	Work Measurement	22
SDT-11:	Job Methods	10
SDT-12:	Conference Leadership	10
SDT-13:	Instruction Training	10
SDT-14:	Creative Thinking	22
SDT-15:	Industrial Safety and Accident Prevention	22
SDT-16:	Industrial First Aid	10
SDT-17:	The Supervisor in North Carolina	10
SDT-18:	The Supervisory and Employee Benefits	10
SDT-19:	Job Analysis Training	12
SDT-20:	Cost Accounting for Supervisors	12
SDT-21:	Supervision in Hospitals	30-40

Fire Service Training

The units of study are designed to increase the firefighter's technical knowledge and improve his skills in fire-ground operations.

The course outlines (units) are not listed in sequential order and may be presented according to the needs of the individual fire departments. It is suggested, however, that "Firefighting Procedures" conclude any long-range program in which all of the units are studied.

The following titles are the broad classification of material to be presented. For a more detailed explanation contact the Jackson County Industrial Education Center.

TIE C/O 6-1 Forcible Entry
TIE C/O 6-2 Rope Practices
TIE C/O 6-3 Portable Fire Extinguishers
TIE C/O 6-4 Ladder Practices
TIE C/O 6-5 Hose Practices
TIE C/O 6-7 Salvage and Overhaul Practices
TIE C/O 6-7 Fire Stream Practices
TIE C/O 6-8 Fire Apparatus Practices
TIE C/O 6-9 Ventilation
TIE C/O 6-10 Rescue Practices
TIE C/O 6-11 Protective Breathing Equipment
TIE C/O 6-12 Firefighting Procedures

Basic Peace Officers Training

The following program is available for the training of peace officers in the area. The curriculum guide has been prepared by Mr. James C. Harper, a research assistant for the Institute of Government at Chapel Hill.

The following is a partial list of the courses available in this area:

1. Courts — Law
11. Elements of Offenses
III. Law of Arrest
IV. Evidence
V. Search and Seizure
VI. Motor Vehicle Law
VII. Court Structure and Procedure
VIII. Liquor Law
IX. Techniques and Procedures of Arrest
X. Law Enforcement Procedures
XI. General Criminal Investigation
XII. Human Relations
XIII. Special Courses

Any interested persons should contact the Center for more specific information.

Adult Basic Education

This program is designed to give opportunities to adults to take courses in basic education such as reading, writing, and arithmetic. Those interested may also take courses on the high school level such as these:

General Mathematics
Economics
American Government
History
English
Natural Science

Through the Division of Cultural Development and Community Services, adults may enroll in vocational programs such as the following:

Art
Art Appreciation
Music Appreciation
Dress Designing
Ceramics
Flower Arranging
Arts and Crafts

For further information concerning the Adults Evening Program and Adult Basic Education, contact

The Jackson County Industrial Education Center
Webster Road
Post Office Box 848
Sylva, North Carolina 28779
Telephone 586-4091

Information on the High School Equivalency Program

An effort will be made to offer school subjects for adults who failed to graduate from high school. In order that credit be given toward graduation, however, it will be necessary that a plan be worked out with the State Department of Public Instruction. Those who fit this circumstance should request by visit, letter, or telephone an appointment for taking placement tests which will determine if the applicant needs further study before applying for the General Educational Development Tests. If additional study is indicated, one or more of the following courses will be available on a night schedule for approximately six hours each week:

1. Correctness and Effectiveness of Expression (English).
2. Literature (American and English).
3. Social Studies (history, civics, economics, government, etc.).
4. Mathematics (arithmetic, algebra, geometry, general math, etc.).
5. Natural Science (general science, biology, chemistry, physics, etc.).

Perhaps a more advantageous plan for others desiring certification of having completed a high school course of study is the High School Equivalency Program. Under this plan, individuals may take a series of tests called the General Education Development Tests (GEDT). Those receiving an acceptable passing score of 225 points with no single test score below 35 will be awarded a High School Equivalency Certificate. This certificate is generally accepted on a basis equal to a high school diploma for employment, promotion, or further education.

The GEDT tests cover five broad areas: English Expression, Literature, Mathematics, Social Studies, and Natural Science. They are administered at designated testing centers, the nearest of which is Western Carolina College in Cullowhee.

The following requirements must be met before taking the tests:

1. Minimum age: 18.
2. Residence: At least one year's bona fide residence in North Carolina.
3. File application on a special form, which is available in the office of the Superintendent of Schools.
4. Application must be endorsed and approved by the Superintendent of Schools.
5. Cost: A fee of $10 for the testing.
6. Have a valid vocational, educational, or other purpose in applying.

Retests may be taken on any or all tests not sooner than six months following the original testing date, or at the end of an intensive training course. Only one retest will be allowed within a twelve-month period.

Suggestions for preparing for the examination are the following:

Enroll in one of the adult classes which are available in the Adult Education Program.

NEW INDUSTRY TRAINING

The training needs of a new or expanding industry are considered as priority items in the services offered by this institution.

Training needs are met by providing skilled instruction (usually by the plants' own supervisors) to the prospective employees within the plant facility. This service is provided at no cost to the industry.