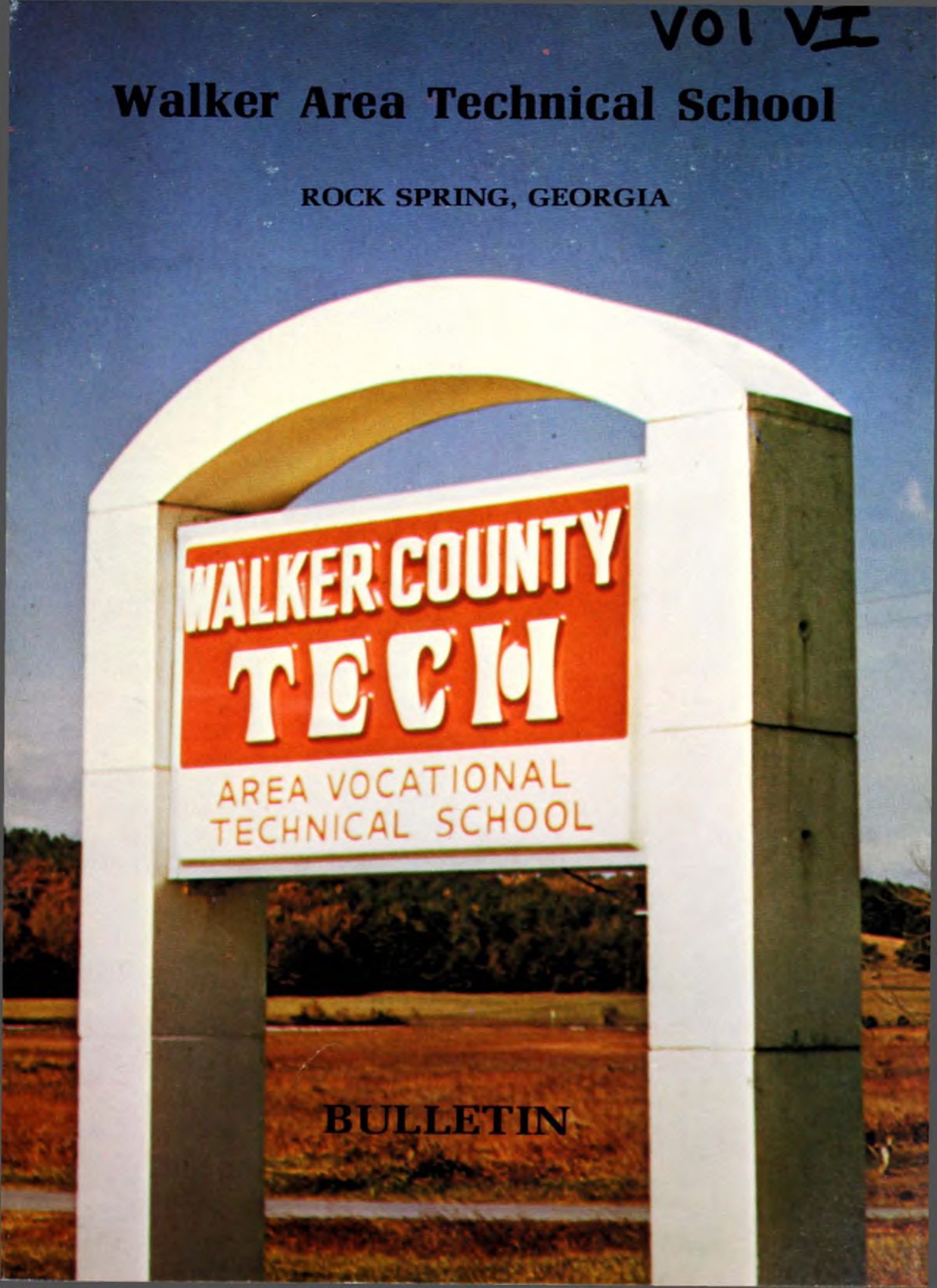
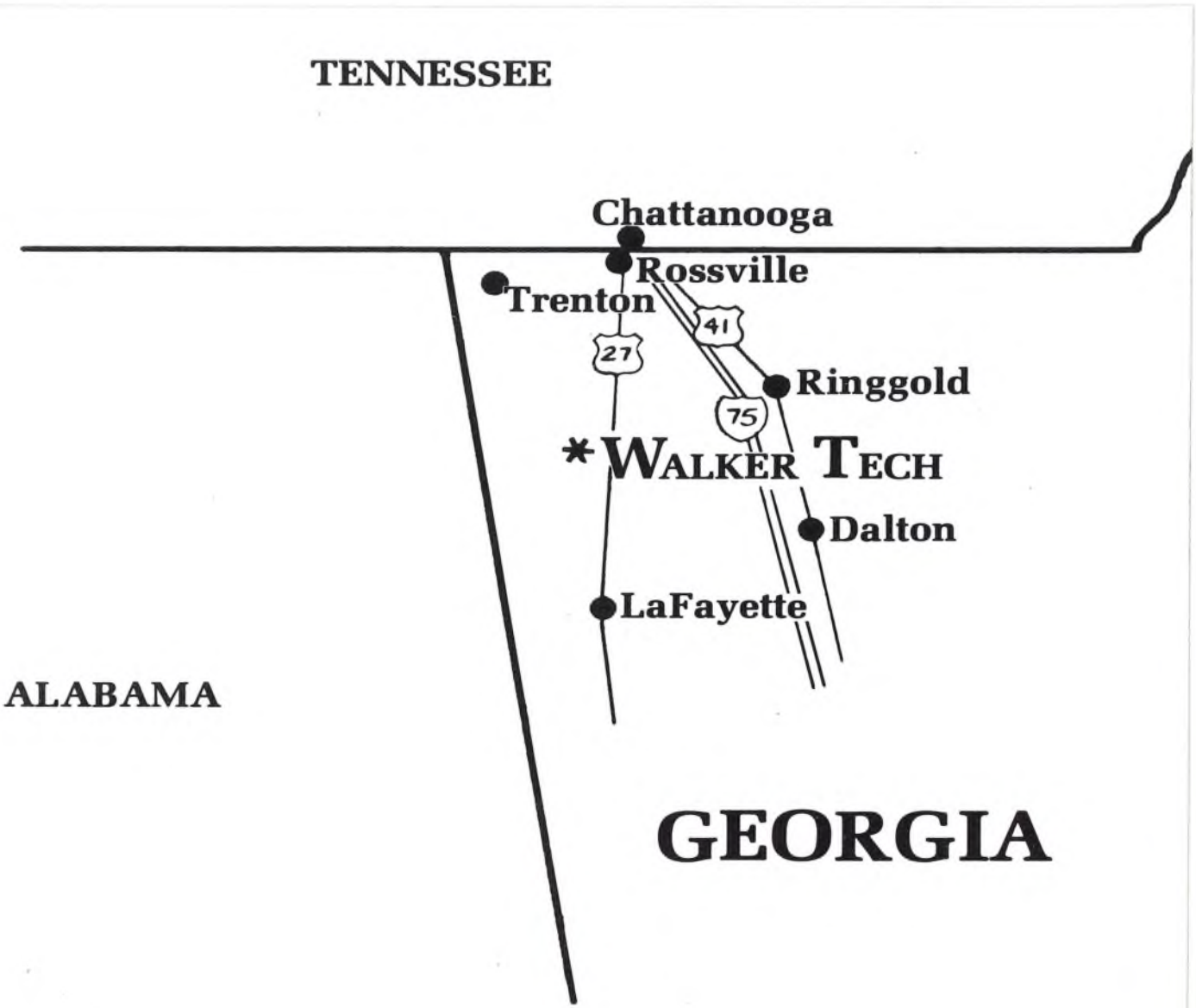
VOL VI

Walker Area Technical School

ROCK SPRING, GEORGIA



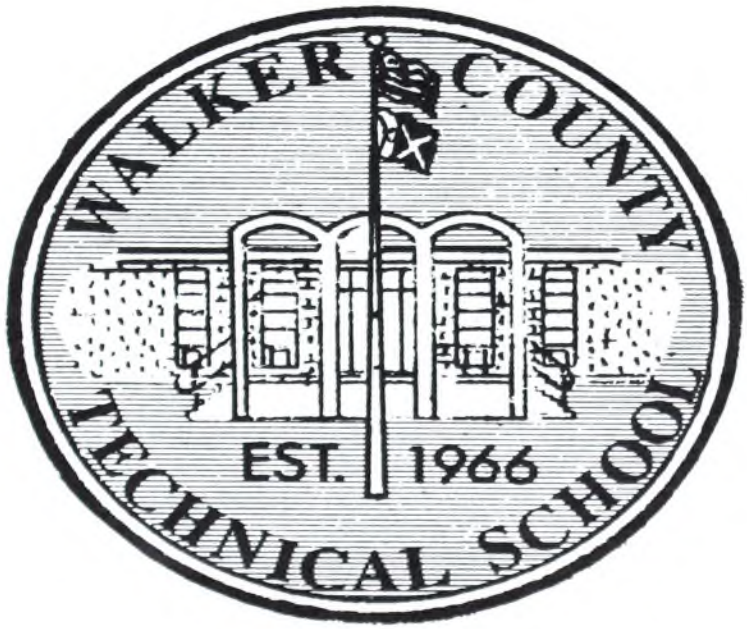
BULLETIN



This institution is in compliance with Title VI of the Civil Rights Act of 1964 and Title IX of the Educational Amendments of 1972. This institution does not discriminate on the basis of race, color, sex or national origin.

Walker Area Technical School

Established 1966



Bulletin Volume VI

ROCK SPRING, GEORGIA 30739

(404) 764-1016 ***(615) 756-1286***

Walker Area Technical School

OPERATED UNDER THE SUPERVISION OF

THE GEORGIA STATE DEPARTMENT OF EDUCATION

OFFICE OF ADULT AND VOCATIONAL EDUCATION

AND THE

WALKER COUNTY BOARD OF EDUCATION

ACCREDITED BY

THE SOUTHERN ASSOCIATION OF SCHOOLS AND COLLEGES

Table of Contents

GENERAL INFORMATION

COURSE OFFERINGS

Philosophy and Purpose

The staff of the Walker County Area Vocational-Technical School believe that it is the responsibility of the institution to provide vocational-technical training as warranted by individual preference and job demand by supplying the necessary facilities and instruction. It is the function of the post-secondary institution to provide a realistic program of occupational education and training that will meet the needs of both industry and community. Its further responsibility is to make this education and training available to all persons who want it, need it, and can profit from it.

In all of its philosophies, concepts, and functions, the Walker County Area Vocational-Technical School reflects the worth of the individual and the need of the individual and industry. This includes a dedication to a quality program of instruction that recognizes the importance of technical knowledge, plus the development of skills and constructive habits and attitudes.

Vocational-technical education must be people oriented—designed to meet the ever-changing needs of citizens and industry. In addition to skill development, training must provide a means for the student to become a more complete person as well as to shape socioeconomic attitudes along with job-work attitudes.

The purpose of Walker Tech is to train students for employment while developing in each individual a potential for growth and change.

The general objectives of Walker County Technical School are as follows:

1. To assist all individuals regardless of age, sex, race, or handicap in discovering their vocational potentialities.
2. To prepare individuals for entry level employment in the world of work.
3. To provide personal counseling service, including employability skills, placement, evaluation, and follow-up.
4. To provide supplementary training and/or upgrading of workers currently employed in existing and/or changing jobs.
5. To provide technical knowledge for each student in his or her chosen field.

6. To provide training relevant to the needs of business and industry in the area.
7. To assist in developing each student's oral and written communication and math skills.
8. To provide consumer education for each student.
9. To promote the acceptance of responsibility and the development of pride in one's work.
10. To provide instruction so that a student may progress to his or her maximum capability.

School Facility and Equipment

The Walker County Technical School, serving four counties, is a part of the public school system of Georgia and Walker County. The building is of functional and flexible design and is one of the finest and best equipped schools in the state of Georgia.

The school contains 60,000 square feet of floor space to provide facilities for sixteen different course offerings. School personnel, with the cooperation of technical advisory committees, evaluate each training program to insure that the latest techniques and latest equipment will be used for up-to-date training.

Faculty

Each instructor is a highly qualified specialist in his or her field. In addition, he or she by professional preparation, is a state certified teacher. This means that an instructor must have worked a minimum of two years in the field that is taught. The instructor must also meet other special requirements set forth by the Department of Adult and Vocational Education of the State Department of Education.

The School Year

The school year at Walker County Area Technical School is divided into four quarters. Normally, students may enter school at the beginning of any new school quarter.

Students at Walker Tech observe the following holidays: Labor Day, Thanksgiving, Christmas, Easter, and Independence Day. Additionally, the school is closed for a two-week period in late June or early July for summer vacation.

Day Classes

Full-time day classes are six hours in length. Students spend approximately one-half day in the classroom for related subject matter and theory; the other half of the day is spent in the laboratory for practical application.

Evening Classes

Evening classes are held from 6:30 p.m. to 10:30 p.m. Monday through Thursday night. The following evening classes are offered: Electronics Technology, Machine Tool, Heating and Air Conditioning, Automobile Mechanics, Welding, Blueprint Reading, GED Preparation, Business Education, Data Processing, Basic Programming and Word Processing.

Extended Day Classes

Full-time classes in Machine Tool, Automotive Mechanics, Data Processing, and Welding meet from 4:30 p.m. to 10:30 p.m. Monday through Friday.

Accreditation

Walker Tech is fully accredited by the Commission on Occupational Education of the Southern Association of Colleges and Schools.

Student Activities

Walker County Tech offers a wide variety of activities for its students. The school has a complete intramural athletic program for students who are interested in sports. Walker Tech has an active student council elected by the student body.

Adult General Education

Academic instruction is offered both on and off campus for adults. There are two divisions:

1. Adult and Continuing Education is designed to help those with less than an eighth grade education. Emphasis is on reading, math, and language skills.
2. GED preparation provides study in the five areas of the high school equivalency examination.

General Education Development Test Program

Walker Tech has been designated as the GED test center for northwest Georgia. By passing the GED, it is possible to obtain a high school equivalency certificate in lieu of the high school diploma.

Courses in GED preparation are offered in both the day and evening division.

Students who have not finished high school and who enter an occupational program are encouraged to try to obtain the high school diploma by the time they finish their occupational training.

GOAL Program

The Georgia Occupational Award for Leadership is sponsored jointly at the state level by the Georgia Department of Education and the Georgia Chamber of Commerce. At the local level the program is sponsored by the LaFayette Chamber of Commerce and Walker County Technical School. The purpose of the program is to give proper recognition to the dignity and importance of Vocational Technical Education in today's modern economy.

In the spring, four local winners will be selected by a screening committee. Each winner will be awarded a cash prize. Of the four local winners, one will be selected to represent Walker Tech in the state contest. The winner of the state contest wins a new automobile.

Grades, attitude, personal goals, and self-confidence are considered in selecting GOAL winners.

Grading System

The following grading system is used at Walker Tech:

93-100	A — Excellent	A = 4 quality points
85-92	B — Good	B = 3 quality points
77-84	C — Average	C = 2 quality points
70-76	D — Below Average	D = 1 quality point

Director's and Merit List

At the end of each quarter, students who compile an average of 3.8 to 4.0, with 4.0 being an all "A" average, are placed on the Director's List. To qualify for the Merit List, one must have an average of 3.50 to 3.79.

Career Development Center

The purpose of the Career Development Center is to assist individuals in making vocational decisions. Evaluation is a personal assessment of one's capabilities by utilizing work sampling, counseling and testing. Each individual participates in a comprehensive evaluation so that he or she can better choose an occupation or area of training that is consistent with his or her capabilities.

In Work Sampling, "Hands On" activities are the focus of attention. Through the utilization of a work sample evaluation system, the Career Development Center staff provides the student with an opportunity to perform actual work in the investigation of the occupational areas. The individual becomes familiar with the tools and terminology associated with each occupational area and thus enhances his or her opportunity to choose or enter a suitable and rewarding occupation.

Counseling sessions are provided on a scheduled but informal basis. These counseling sessions provide the student with information concerning job opportunities, training availability, and general attitude adjustment.

Tests and questionnaires are administered to each individual and help indicate levels of interest, achievement, aptitude and dexterity. These inventories are not pass-fail tests; there is no student competition. The results of these inventories are used as a measuring device to aid in helping the individual formulate an Educational-Occupational Goal for himself.

For admission to the Center, call or come by to see the Coordinator of Student Personnel at Walker County Area Technical School. The only requirement is that you must be sixteen years old. There is no cost for the evaluation or basic skills classes.

The length of evaluation varies with each person. Evaluations are scheduled five days a week between the hours of 8:30 a.m. and 3:30 p.m.

Driver Education

The Driver Education program is open to anyone 15 years of age or older. The purpose is to give the non-driver an opportunity to learn the skills, rules and techniques required to drive a car properly. The course consists of 30 hours of classroom instruction, eight hours on the driving range, and three hours behind-the-wheel instruction.

Cost

Since Walker County Tech is a tax-supported unit of the Walker County and Georgia State Department of Education, there will be no tuition charge for bona fide residents of Georgia. Each student will be required to pay a nominal supply fee and purchase books. Supply fees range from $35.00 to $100.00. For current fee, refer to Class Bulletin.

ALL FEES MUST BE PAID BEFORE A STUDENT IS FULLY ENROLLED.

Financial Aid

Veterans Financial Assistance

Walker County Area Technical School is approved for VA benefits by the State Department of Veterans Services for training under Public Law 89-358 (Cold War G.I. Bill) and Public Law 840734 (War Orphans Act).

Vocational Rehabilitation

Qualified students may receive assistance while attending Walker Tech. Contact your local Vocational Rehabilitation Counselor for additional information.

College Work-Study

Walker Tech participates in the College Work-Study Program. Students in need of financial assistance may work from ten to twenty hours a week in jobs located both on and off campus. Applications are available in the Financial Aid Office and can be processed in the institution. This program is funded on a fiscal year basis. This program enables the recipient to receive assistance for Fall, Winter, Spring, and Summer Quarters.

Georgia Incentive Scholarship

This program is sponsored by the Georgia Higher Education Assistance Authority. This grant provides an eligible student from $50 to $150 per quarter to attend Walker Tech. Applications are available in the Financial Aid Office and must be mailed to a processor for processing. This program funds only Fall, Winter, and Spring Quarters.

Authority Direct Student Loans

HEALTH OCCUPATIONS ONLY

This loan may be borrowed up to a maximum $1500 per academic year. This loan may either be repaid or may be deleted by a year's service to an institution that is approved by the Commission.

Pell Grant

The Pell Grant, formerly Basic Educational Opportunity Grant, is a program administered by the U.S. Office of Education and is available to high school graduates who enroll at Walker Tech. This grant is based on financial need and is used to defray the cost of attending school. Students interested in this grant should contact their high school counselor or Walker Tech for additional information. Applications are available in the Financial Aid Office. The applications must be mailed to the processor, and processing takes from four to six weeks. This program is funded for Fall, Winter, Spring, and Summer Quarters. Applications must be submitted annually on a fiscal year basis in order to determine eligibility.

Guaranteed Student Loans

The Guaranteed Student Loan is a low interest loan made to you by a lender such as a bank, or savings and loan association. After you leave school, you must pay this money back.

High School Senior Cooperative Program

The full-time senior co-op program is designed to allow a rising high school senior to earn his or her final credits at an area technical school. This will give the "specialty oriented students" an opportunity to earn their high school diploma

and, at the same time, to begin their training at a technical school. The following requirements and limitations are placed upon students entering the co-op program.

1. 180 quarter hours in grades nine through eleven are required to enter this program.
2. There must be evidence that students are qualified to successfully pursue to completion the curriculum in which they are enrolled.
3. Admission of students will be based upon:
   a. Evaluation of high school records
   b. Interest
   c. Achievement
   d. Maturity and Responsibility
   e. Personal interview with the student and parents
4. The student must identify his occupational objective.
5. Students must show evidence that they will complete the training program in the area technical school after graduation from high school if length of the training program exceeds the normal school year.
6. Walker Tech will assume responsibility for full-time students in the 12th grade (six hours per day).
7. The student must have the approval of his high school principal before entering the senior year program.
8. Students attending on the high school cooperative program cannot be counted on the high school's average daily attendance.

Admission Requirements

Age

A minimum age of 16 is required for all courses except Practical Nursing. The minimum age for Practical Nursing is 17½.

Education

A sound educational background is a basic part of the preparation needed by students who plan to enter Walker Tech. To be admitted as a regular student, the applicant must possess a high school diploma or GED diploma. A student with less than a high school diploma will be admitted as a provisional student, provided he works toward obtaining his equivalency diploma while enrolled.

Interview

An interview with the Coordinator of Student Personnel is held with each applicant to assist the student in making a wise decision in his or her choice of study.

Health

All applicants must possess the minimum physical and mental standards necessary to carry out all requirements of the occupation for which he or she is preparing.

Admission Policies

1. All applicants for full-time classes must file an application for admission, pay the registration fee, take a placement test, and appear for a personal interview with the Coordinator of Student Personnel.
2. Applicants for half-time classes must pay a $2.00 registration fee.
3. Applicants must apply specifically for day, evening, or extended day classes. Applications will be processed only for one course—the course that is listed first on the application. It is the responsibility of the applicant to notify the school if he or she desires to change his or her application from day to evening classes, or vice versa.
4. Any student currently enrolled may not apply for another course until he or she has completed the course in which he or she is currently enrolled.
5. Filing an application for admission does not mean that an applicant will be accepted into a program. The applicant must complete all admission procedures and take the necessary steps to insure that his or her application remains in the active file.
6. Applicants may be placed on a waiting list if the program for which they have applied is full. Being placed on the waiting list does not guarantee a specific admission date, but precedence in admission is given in the order that applications are received. Each individual will be notified of his or her entrance date.
7. Those students who voluntarily drop out and those who are terminated must reapply for admission.
8. All applications for day classes must be approved by the Coordinator of Student Personnel. All applications for evening and extended day classes must be approved by the Coordinator of Evening Instruction. Any inquiries concerning admissions should be directed to these coordinators.
9. Applicants will be expected to provide assurances that they are applying for enrollment for the purpose of obtaining employment in the field for which they will be trained.

10. The applicant must meet minimum prerequisites for reading comprehension, computational skills and physical abilities established for the program to be entered.
11. Any individual desiring to enter a particular program, who does not meet minimum entrance requirements established for that program, may be provisionally accepted for future enrollment pending the attainment of those minimum standards.
12. Any individual who does not meet minimum standards for entry into a particular course or program will be considered as a student with special needs. Such students may be enrolled in the school but not in a program for which he or she cannot qualify.

Counseling

The school has a complete guidance and counseling program designed to assist each student in fulfilling his or her goals.

Job Placement

The school employs a full-time Job Placement Coordinator whose primary objective is to place satisfactory students on jobs for which they have been trained. The placement service of the school maintains continuous contact with the employers, both locally and statewide, and with the state employment office, to assist students with employment opportunities available.

Refund Policy

1. The registration fee is non-refundable.
2. A percentage of the supply fee is refundable:
   a. From the first through the tenth school day after the quarter begins 50%.
   b. From the eleventh through the twenty-fifth day after the quarter begins ..... 25%.
   c. From the twenty-sixth through the remaining days of the quarter NONE.

Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act of 1974 sets requirements designed to protect the privacy of education records, to establish the right of students to inspect and review their education records, and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings.

Directory information will be treated as public information. Directory information includes: the student's name; address; telephone number; date and place of birth; course of study; dates of attendance; and honors and awards.

Any student who does not wish directory information disclosed must file a written request.

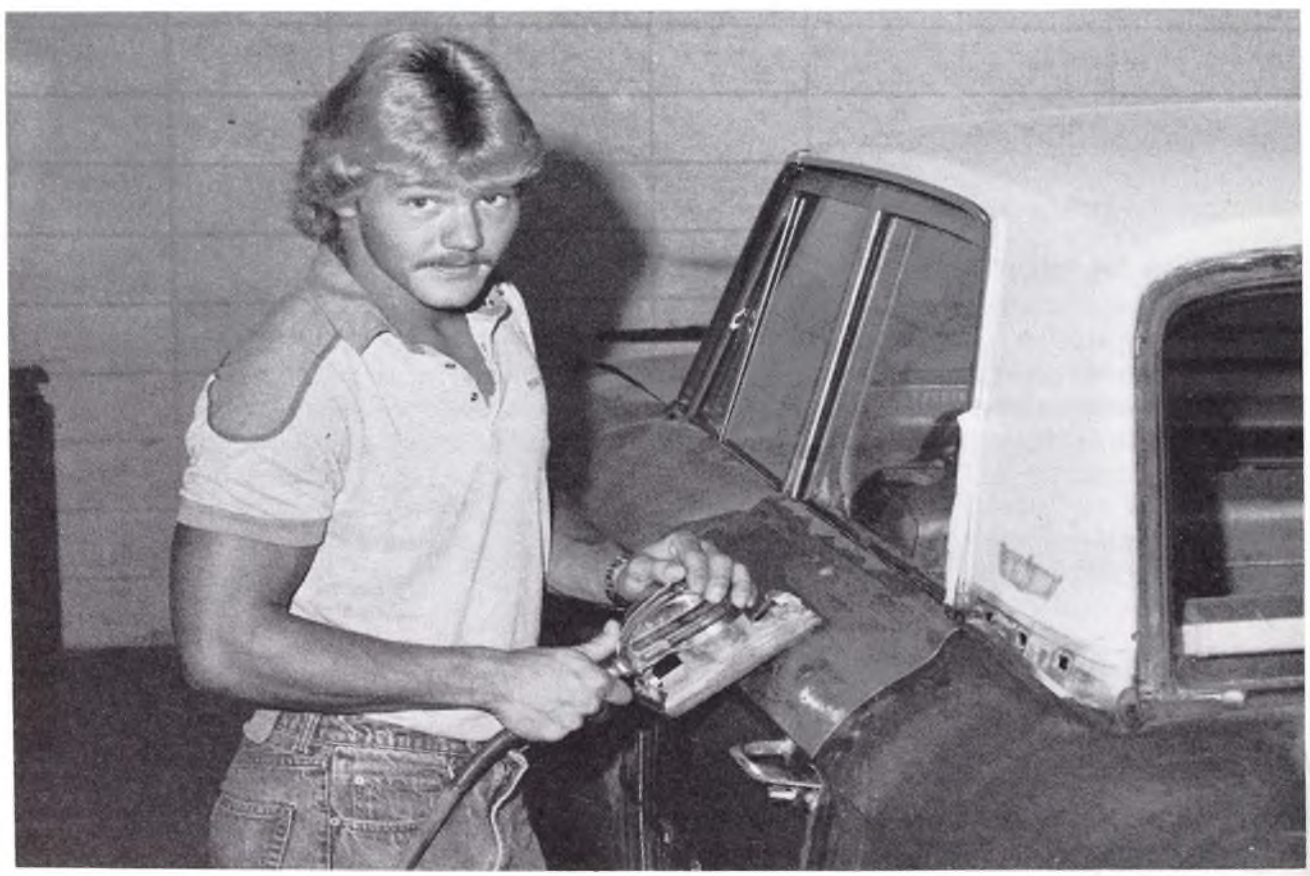
Questions concerning the Family Education Rights and Privacy Act may be referred to the Student Personnel Office.

Cooperative Associate Degree Program With Dalton Jr. College

Walker Tech graduates who meet specified academic and admission requirements can receive from 35 to 60 quarter hours credit for work completed at Walker Tech toward an associate of science degree at Dalton Junior College.

Title VI and Title IX Compliance

Walker County Area Technical School is in compliance with Title VI of the Civil Rights Act of 1964 and Title IX of the Educational Amendments of 1972. This institution does not discriminate on the basis of race, color, sex or national origin.



COURSE OFFERINGS

Accounting

Course Objective

The accounting program is designed to develop an understanding of the principles of business accounting essential for anyone who aspires to a successful career in private, public, or governmental accounting.

Background Information

Accounting is the process of identifying, measuring, and communicating economic information to permit informed judgments and decisions by users of the information.

The accounting program provides the student an inside look into the business environment, and gives him the tools necessary to become a successful and beneficial employee.

Employment Opportunities

Graduates of the accounting program can locate employment with all types of businesses since accounting is the "language of business." Trends indicate a consistent need for persons skilled in accounting to fill openings in the area served by Walker County Tech. Salaries of accounting jobs vary with the size of the job and type of company.

LENGTH OF COURSE: Four Quarters (One Year)
ENTRANCE DATES: Fall Quarter
COST: Books $200 for entire course.

REGISTRATION FEE: $8.50
ENTRANCE TEST FEE: $3.00
SUPPLY FEE: See Class Bulletin.
Due each quarter.

Prerequisites for Admission

1. Submit application and take entrance test.
2. Should have reading level equal to the ninth grade.
3. Should have a math level equal to the ninth grade.
4. Should have a high school diploma or GED, be working toward GED, or be a co-op student.

ACCOUNTING COURSE OUTLINE

First Quarter:	*Quarter Hours Credit*
ACC 101 — Accounting I	10
ACC 110 — Typewriting I	5
DPT 112 — Data Entry	5
MA 113 — Business Math I	5
DPM 101 — Basic Programming	5
	30

Second Quarter:	
MA 122 — Business Math II	5
ACC 111 — Typewriting II	5
ACC 102 — Accounting II	10
ACC 109 — Simulation I	10
	30

Third Quarter:	
ACC 106 — Simulation II	10
ACC 103 — Accounting III	10
ACC 112 — Business English	5
ACC 108 — Income Tax	5
	30

Fourth Quarter:	
ACC 107 — Simulation III	10
ACC 104 — Payroll Accounting	10
CS 102 — Technical Report Writing	5
DPM 105 — Computerized Accounting	5
	30

ACCOUNTING

Description of Courses

ACC 101 ACCOUNTING I is an introduction to the fundamental principles and procedures of accounting for a sole proprietorship, including a study of journals, ledgers, working papers, accounting statements, and controlling accounts.

ACC 110 TYPING I is a beginning course for the student. The keyboard is introduced and drilled while the basic theory of typewriting is taught and reinforced.

MA 113 BUSINESS MATH I is an introduction to the fundamentals needed by a student to develop workable knowledge of mathematical computations for business applications.

ACC 108 INCOME TAX is an introductory course designed to acquaint the student with the United States and Georgia income tax laws.

ACC 111 TYPING II is designed to increase the student's proficiency in typing with emphasis on numerical copy and various forms and financial statements used in the business office.

ACC 102 ACCOUNTING II is a continuation of Accounting I with emphasis on accounting procedures for the partnership form of business enterprise, providing an introduction to some of the specialized areas of accounting.

ACC 109 SIMULATION I is a simulated office utilizing task-type activities to blend together two or more subject areas into a realistic activity reflecting actual office tasks. It provides the learner experience in the responsibilities of planning, controlling, coordinating and executing functions within the total picture of a team activity, making decisions and applying what he/she has already learned. (This course is a prerequisite for Simulation II).

ACC 106 SIMULATION II is a simulated office utilizing position-type arrangements where each student functions mainly in his/her major area, bringing all his/her skills and knowledge to bear upon this position.

ACC 103 ACCOUNTING III is a study of corporation accounting with emphasis on the accounting process, the preparation of financial statements, and the accounting for tangible assets.

ACC 112 BUSINESS ENGLISH emphasizes improvement in the use of language skills in oral and written expressions.

MA 122 BUSINESS MATH II is a course that consists of an introduction to algebra, calculating cash and trade discounts, selling goods, and inventory valuation.

ACC 107 SIMULATION III consists of a simulated office utilizing a work flow situation. The students are required to interact between positions and assume different sets of tasks.

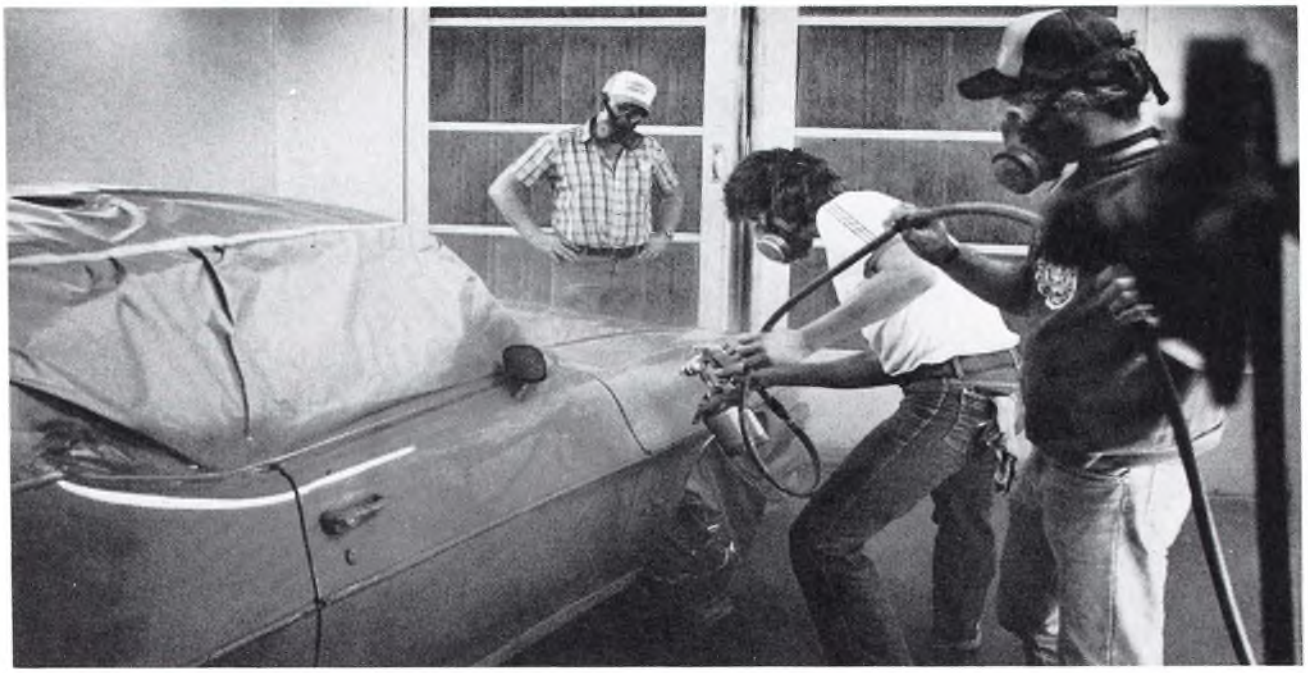
ACC 104 PAYROLL ACCOUNTING is a study of the basic payroll accounting systems and procedures while introducing the student to the various local, state, and federal laws that affect payroll operations and employment practices.

DPT 112 DATA ENTRY is a course designed to develop job entry level skills in keypunch, key to diskette, and CRT terminal operation.

CS 102 TECHNICAL REPORT WRITING consists of a term paper related to a specific area in accounting, and the mechanics needed to compose the paper.

DPM 101 BEGINNING BASIC is a course in which the student will gain experience in performing laboratory experiences in system operations, basic commands, program structure, and microcomputer concepts. As a result of these varied experiences, students will have a greater knowledge of microcomputers and will be prepared for Advanced Basic.

DPM 105 COMPUTERIZED ACCOUNTING is a course in which the student will gain experience in performing computer accounting functions in general ledger, inventory, payroll, taxes, trial balance and periodic reports.



Auto Body and Fender Repair

Course Objective

The Auto Body and Fender Repair course is designed to develop a skill level which will qualify the student for employment in the field of auto body repair.

Background Information

This program includes classroom instruction and lab periods in study and actual repair of the automobile body and frame components, fundamental process of straightening, repairing, replacing, and refinishing of damaged components. This course also deals with proper use of tools, equipment, materials, and techniques to the degree of proficiency necessary to the trade.

Employment Opportunities

Employment is expected to increase as a result of the rising number of motor vehicles damaged in traffic. Accidents are expected to increase as the number of motor vehicles grows.

LENGTH OF COURSE:	Four Quarters (One Year)
ENTRANCE DATES:	Quarterly (When seats are available)
COST:	Books approximately $50; tools approximately $100.
REGISTRATION FEE:	$8.50
ENTRANCE TEST FEE:	$3.00
SUPPLY FEE:	See Course Bulletin

Prerequisites for Admission

1. Submit application and take the entrance test.
2. Should have mathematics level equal to the eighth grade.

3. Should have reading level equal to the eighth grade.
4. Applicants must be mechanically inclined and have good eye/hand coordination.

AUTO BODY AND FENDER REPAIR COURSE OUTLINE

	Quarter Hours Credit
First Quarter:	
ABR 101 — Welding, Cutting, Brazing	5
ABR 102 — Basic Metal Repair	15
ABR 103 — Basic Refinishing	5
101 — Related	5
	30
Second Quarter:	
ABR 104 — Replacing Hardware	10
ABR 105 — Metal Repair II	10
ABR 106 — Refinishing II	5
101 — Related	5
	30
Third Quarter:	
ABR 107 — Glass Replacement	10
ABR 108 — Metal Repair III	7.5
ABR 109 — Refinishing III	7.5
101 — Related	5
	30
Fourth Quarter:	
ABR 110 — Damage Estimating	5
ABR 111 — Major Metal Work	15
ABR 112 — Refinishing IV	10
	30

AUTO BODY AND FENDER REPAIR

Description of Courses

ABR 101 WELDING, CUTTING AND BRAZING is designed to teach oxy-acetylene welding, cutting, heating, brazing and mig-welding of thin metals.

ABR 102 BASIC METAL REPAIR is designed to teach the student the use of special tools such as dollies, hammers, files, air sanders and pneumatic jacks and tools. Also, the student learns to repair minor dents.

ABR 103 BASIC REFINISHING is designed to teach the student the proper use and maintenance of spray equipment, safety and preparation make-up of base coats.

ABR 104 REPLACING HARDWARE is designed to teach the student the types of retainers such as bolt-on, snap-on, and adhesive types. Also, door handles, mirrors, grilles and bumpers.

ABR 105 METAL REPAIR II is designed to teach the student body and frame construction, how metal is formed to provide strength, and principles of measurement.

ABR 106 REFINISHING II is designed to teach the student refinishing material. Proper spraying practices and methods for spot and all-over paint jobs.

ABR 107 GLASS REPLACEMENT is designed to teach the student how to install stationary windows, ventilator glass and movable windows.

ABR 108 METAL REPAIR III is designed to teach the student preparation of the metal for the painter, shrinking stretched metal, and repairing large dents.

ABR 109 REFINISHING III is designed to teach the student paint and body shop layout, proper equipment to use, application of top coats, personal safety items, special top coats, metallic matching, and clear top coats.

ABR 110 DAMAGE ESTIMATING is designed to teach the student typical repairs, replacement versus repair, extent of the damage and availability of parts, responsibility for payment, use of flat rate and parts manuals.

ABR 111 MAJOR METAL WORK is designed to study frame and unitized underbody misalignment, approach to collision jobs, and repairing major damage.

ABR 112 REFINISHING IV introduces practices and problems, manufacturing warnings and government regulations, color and texture matching, and good housekeeping.

Automotive Mechanics

Course Objective

Automotive Mechanics is designed to prepare the student for employment at entry level in the repair and maintenance of automobiles.

Background Information

The value of the automobile as a dependable means of transportation has been proved many times. New automobiles are being produced in greater quantities than ever before, and the changes are rapid and complete. Automotive mechanics is a pre-employment course designed to prepare the student for employment at entry level in the repair and maintenance of automobiles and light trucks. The program of instruction consists of theory and practice and in the disassembly, assembly, and diagnoses of malfunctions in the various types of engines, carburetors, fuel pumps, generators, alternators, starters, ignition systems, clutches, transmissions, rear axles, front ends, and power and hydraulic brakes.

Employment Opportunities

Employment opportunities are considered excellent.

LENGTH OF COURSE: Four Quarters or One Year (approximately)
ENTRANCE DATES: Quarterly (when seats are available)
COST: Books $75 for the entire year. Student must provide a set of tools which costs approximately $200.

REGISTRATION FEE: $8.50
ENTRANCE TEST FEE: $3.00
SUPPLY FEE: See Course Bulletin.

Prerequisites for Admission

1. Submit application and take the entrance test.
2. The student must have a mechanical ability, have the desire to become an auto technician, and have concrete plans to work in the automotive industry upon completion of the course.
3. The student should always be able to understand and apply basic mathematical principles and have a mathematics level equal to the seventh grade.
4. The student must be able to read on the eighth grade level.

The following tools and equipment must be obtained prior to the class beginning date.

AUTOMOBILE MECHANICS

Required Tool Set

1. ½" Drive Set 7/16" thru 1" by 1/16's with 13/16 Plug Socket, Universal Joint, One Extension 2" Long, One Extension 6" Long, and ½" Drive Rachet.
2. 3/8" Socket Set 3/8 thru 3/4 by 1/16's with 5/8 Plug Socket, 2" Extension, One 3/8 Drive Rachet, ¼ Sockets, 3/16" thru ½" with 3/8" to ¼" Reducer.
3. Open End Wrench Set Consisting of Six Wrenches: 3/8" x 7/16", ½" x 9/16", 5/8" x 3/4", 11/16" x 13/16", 3/4" x 7/8", 15/16" x 1".
4. One 8" Adjustable Wrench.
5. One 8" Slip Joint Pliers.
6. One 6" x ¼ Flat Tip Screw Driver.
7. One #2 Phillips Head Screw Driver.
8. One Mechanic's Tool Box 20" x 8½" x 9½" with Tray.
9. One Pair Safety Glasses.

Auto Mechanics Fundamentals by Stockel.
Auto Service and Repair by Stockel.

AUTO-MECHANICS COURSE OUTLINE

	Quarter Hours Credit
Fall Quarter:	
AMCH 101 — Automotive Engines	10
AMCH 102 — Automotive Brakes	10
CS 101 — Communication Skills	5
	30
Winter Quarter:	
AMCH 103 — Power Train	25
CF 101 — Consumer Finance	5
	30

Spring Quarter:

AMCH 104 — Fuel and Ignition	15
AMCH 105 — Starting Systems and Charging	10
MA 101 — Mathematics	5
	30

Summer Quarter:

AMCH 106 — Front Alignment	10
AMCH 107 — Wheel Balancing	5
AMCH 108 — Automotive Air Conditioning	15
	30
*OJT 150 — On-the-Job Training	30

***May be substituted for student's last quarter requirements.**

AUTOMOTIVE MECHANICS

Description of Courses

AMCH 101 AUTOMOTIVE ENGINES presents the basic fundamentals of internal combustion engines. The course consists of engine principles and construction, engine overhaul, and troubleshooting.

AMCH 102 AUTOMOTIVE BRAKES gives the student an understanding of fundamentals of brakes, making him/her thoroughly familiar with automobile brakes systems and enabling him/her to perform complete brake system overhauls.

AMCH 103 POWER TRAIN presents the basic fundamentals of the automobile gear trains. Power train is a presentation of troubleshooting, removal, repair, and replacement of transmissions (automatic and manual), propeller shafts, clutch assemblies, and differentials.

AMCH 104 FUEL AND IGNITION presents the basic fundamentals of the automobile fuel and ignition system. Also, the service and repair of computerized fuel and ignition systems such as Ford's E.C.C. and General Motors' C.C.C., Dual Cross Fire Injection, and Throttle Body Injection Systems are included. Carburetor servicing, engine tune-up procedures and system troubleshooting is stressed. Students are trained in the use of engine diagnostic equipment to enhance their diagnostic abilities.

AMCH 105 STARTING AND CHARGING SYSTEMS presents the basic fundamentals of electricity as it applies to the automotive starting and charging system. Diagnosis and service of the automotive electrical system, using the latest diagnostic equipment, is stressed.

AMCH 106 FRONT END SERVICE. The student is trained in all areas of front end service work. Inspecting front suspension systems, replacing defective components and aligning front suspension and steering systems is stressed. Students are trained with the aid of conventional and computerized alignment equipment.

AMCH 107 WHEEL BALANCING consists of the correct techniques of balancing wheels of an automobile.

AMCH 108 AUTOMOTIVE AIR CONDITIONING is designed to familiarize the student with the basic fundamentals of air conditioning. Specific attention will be devoted to the various components in the air-conditioning system, their function, installation and repair.

MA 101 BASIC MATHEMATICS APPLIED presents an in-depth review of basic arithmetic including whole numbers, decimals, fractions, percents, ratios, proportions, areas, volumes, and formulas as applied to the student's chosen field. Strong emphasis is placed on solution of practical work problems. MA 101 or a satisfactory entrance score is required of all areas.

CF 101 CONSUMER FINANCE is a course designed to help the student become a better consumer. Budgeting, credit, and taxes are included in the course.

CS 101 COMMUNICATION SKILLS is organized to develop the student's ability in written and oral communications, and to increase comprehension and study skills.

Consumer Electronics

Course Objective

Consumer Electronics is a pre-employment course designed to prepare the student for employment at the entry level in the repair, servicing, and installation of radio receivers (including transistors), television receivers (including color and closed circuit), high fidelity and stereophonic sound reproduction systems, and related electronic equipment.

Background Information

In this field, technicians repair a large and growing number of electronic products, of which television sets and radios are the most numerous. They also repair stereo components, tape recorders, intercoms and public address systems.

Employment Opportunities

Employment of consumer electronic technicians is expected to increase through the 1980's.

LENGTH OF COURSE:	Eight Quarters
ENTRANCE DATES:	Fall and Spring (When seats are available)
COST:	Books $150 for entire course.
REGISTRATION FEE:	$8.50
ENTRANCE TEST FEE:	$3.00
SUPPLY FEE:	See class bulletin. Due each quarter.

Prerequisites for Admission

1. Submit application and take entrance test.
2. Must be able to read and comprehend on the ninth grade level.
3. Must be able to perform basic mathematical operations equal to the ninth grade level.
4. Must have good finger and manual dexterity.
5. Must be mechanically inclined.
6. Should possess the ability to learn to read schematic diagrams.

CONSUMER ELECTRONICS COURSE OUTLINE

	Quarter Hours Credit
First Quarter:	
MA 125 — Applied College Algebra	5
DPM 101 — Basic Programming	5
ELE 102 — DC Circuits I	10
ELE 103 — DC Circuits II	10
	30
Second Quarter:	
MA 135 — Applied College Trig	5
ELE 101 — Shop Practices	5
ELE 104 — AC Circuits I	10
ELE 105 — AC Circiuts II	10
	30
Third Quarter:	
ELE 106 — Electronic Devices I	5
ELE 107 — Electronic Devices II	15
ELE 108 — Electronic Circuits I	10
	30
Fourth Quarter:	
CS 101 — Communication Skills	5
ELE 109 — Electronic Circuits II	10
ELE 110 — Electronic Circuits III	10
ELE 111 — Electronic Devices III	5
	30
Fifth Quarter:	
CET 201 — Introduction to Computers	10
CET 202 — Computers II	10
CET 203 — AM/FM Radio Receivers	10
	30
Sixth Quarter:	
CET 204 — Television Symptoms	30

Seventh Quarter:

CET 205 — Introduction to Television	5
CET 206 — Black and White, Color Picture Tubes	5
CET 207 — TV Power Supplies	5
CET 208 — Video Amplifier Circuits	5
CET 209 — Automatic Gain Control	5
CET 210 — TV Synchronizing Circuit	5
	30

Eighth Quarter:

CET 211 — TV Color Circuits	5
CET 212 — TV Deflection Oscillators and Output Circuits	10
CET 213 — Video IF Amplifiers and Video Detectors	5
CET 214 — RF Amplifiers, TV Tuners and AFT Circuits	5
CET 215 — TV Sound System	5
	30

CONSUMER ELECTRONICS

Description of Courses

MATH 125 APPLIED BASIC ALGEBRA seeks to expand the student's analytical thought processes through an increased awareness of algebraic principles as applied to the area of study. *Prerequisite:* MA 101, satisfactory score on entrance exam, or instructor approval.

ELE 102 DC CIRCUITS I is designed to familiarize the student with some of the basic physical theories that underlie the study of electricity, specifically voltage, current, and resistance. *Prerequisite:* ELE 101.

ELE 103 DC CIRCUITS II is designed to familiarize the student with voltage dividers, current dividers, network theorems, meters, and magnetism. *Prerequisites:* 101 and 102.

MA 135 APPLIED COLLEGE TRIGONOMETRY is designed to supply the information and necessary practice for a working knowledge of trigonometry. Since a working knowledge of this subject is the aim, applications are emphasized. *Prerequisites:* MA 125 or Instructor Approval.

ELE 101 SHOP PRACTICES is designed to familiarize the student with shop safety and introduce some of the basic hand tools, parts, and equipment used in Electronics. The student will learn the fundamentals of wire preparation, soldering and de-soldering practices.

ELE 104 AC CIRCUITS I is a course designed to present the characteristics that make up alternating voltage and current, such as frequency wavelength, phase, period, waveshape, and measurement of AC; also, a study of Inductors and Capacitors and their reactance to AC. *Prerequisites:* 101 thru 103.

DPM 101 BEGINNING BASIC is designed to familiarize the student with the fundamental concepts in BASIC Programming. The student will gain experience in performing laboratory experiences in system operations, basic commands, program structure, and microcomputer concepts. As a result of these varied experiences, students will have a greater knowledge of microcomputers and will be prepared for Advanced Basic. The student will train on a TRS-80 Model III. Course length: approximately ten weeks. No prerequisites. Free lab time will be posted.

ELE 105 AC CIRCUITS II presents the study of RC and L/R time Constants, Resonance and Filters. *Prerequisites:* 101 thru 104.

ELE 106 ELECTRONIC DEVICES I is designed to familiarize the student with some of the basic fundamentals that underlie semiconductor materials, basic diodes and Zener diodes. *Prerequisites:* 101 thru 105.

ELE 107 ELECTRONIC DEVICES II is designed to familiarize the student with some of the basic fundamentals of transistors, field effect transistors, thyristors, integrated circuits, and optoelectronic devices. *Prerequisites:* 101 thru 106.

ELE 108 ELECTRONIC CIRCUITS I is a course in which the student will be able to identify basic transistor amplifier circuits, describe their operation, and list the characteristics of each. The student will be able to describe direct current amplifiers, audio amplifiers, video amplifiers, IF amplifiers, and radio frequency amplifiers, including their application in practical electronic systems. *Prerequisites:* ELE 107.

CS 101 COMMUNICATION SKILLS is designed to improve students' skill in occupational vocabulary, oral communication, job hunting and human relations on the job.

ELE 109 ELECTRONIC CIRCUITS II is a course in which the student will be able to explain the operation of differential amplifiers, comparators, summing and difference amplifiers, and active filter circuits. The student will be able to analyze and design simple inverting and noninverting amplifiers that use operational amplifiers. The student will be able to identify and explain the operation of power supply rectifiers, filters, and regulation circuits. The student will be able to discuss the basic principles of commonly used LC, RC, and crystal oscillators. *Prerequisites:* ELE 108.

ELE 110 ELECTRONIC CIRCUITS III is designed so that the student will be able to explain the operation of pulse shapers, multivibrators, the Schmitt trigger, and ramp generators. The student will be able to explain amplitude and frequency modulation, the heterodyne principle, and modulation and detection circuits. *Prerequisites:* ELE 109.

ELE 111 ELECTRONIC DEVICES III is designed so that the student will be able to identify basic types of vacuum tubes and describe their operation, and list the characteristics of each. *Prerequisites:* ELE 110.

ELE 210 INTRODUCTION TO COMPUTERS is a study of numbering systems, semiconductor devices for digital circuits, digital logic circuits and digital integrated circuits. *Prerequisites:* All 100 Course Numbers.

ELE 202 COMPUTERS II, a continuation of Introduction to Computers, is a study of boolean algebra, flip-flops, shift registers and combinational logic circuits. *Prerequisites:* All 100 Course Numbers and ELE 201.

CET 203 AM/FM RECEIVERS is a course in which the student will be able to build an AM/FM receiver from a schematic diagram and a kit of radio parts. The student will be able to align AM/FM receivers using an RF signal/ generator, oscilloscope and volt meter. *Prerequisites:* ELE 111.

CET 204 TELEVISION SYMPTOMS is a course in which the student will be able to observe and recognize symptoms in the television picture and sound. The student will be able to describe and explain the television receiver system which allows the student to relate trouble symptoms to a particular section of the set. *Prerequisites:* All 100 Course Numbers.

CET 205 INTRODUCTION TO TELEVISION is designed so that the student will be able to correctly operate panel controls on black and white, and color television receivers. The student will be able to identify scanning and

synchronization waveform. The student will be able to correctly determine detail and picture quality of a television set using a generated test pattern. The student will be able to set up and operate correctly camera, videotape recorder, and television monitor.

CET 206 BLACK AND WHITE, AND COLOR PICTURE TUBES is designed so that the student will be able to identify the correct methods of handling picture tubes. The student will be able to replace black and white, and color picture tubes. The student will be able to set up and converge color picture tubes. The student will be able to describe the basic electrical characteristics of all picture tubes.

CET 207 TV POWER SUPPLIES is a course in which the student will be able to identify the types of power supplies. The student will be able to troubleshoot a defective power supply and locate all defective components.

CET 208 VIDEO AMPLIFIER CIRCUITS is designed so that the student will be able to identify the types of circuitry used for the amplification of video signals. The student will be able to check the frequency response of video amplifiers by the use of a square wave generator and oscilloscope. The student will be able to identify video trouble and localize the defective stage, component or components, then replace all defective components to correct the video amplifiers for proper operation.

CET 209 AUTOMATIC GAIN CONTROL is a course in which the student will be assigned a TV receiver with a defective AGC stage. He must isolate the defective component or components and restore the AGC circuitry into normal operating condition.

CET 210 TV SYNCHRONIZING CIRCUIT is a course designed so the student will be able to describe the circuit operation of synchronizing circuits. The student will be able to localize sync circuits by the use of oscillscope wave forms and DC voltages.

CET 211 TV COLOR CIRCUITS is a course in which the student will be able to describe the circuitry used for color recovery. The student will be able to analyze the color wave forms. The student will be able to troubleshoot the color circuits, locate and replace defective components. The student will be able to align the color circuits.

CET 212 TV DEFLECTION OSCILLATORS AND OUTPUT CIRCUITS is a course in which the student will be able to identify horizontal and vertical circuitry and the deflection wave forms they produce. The student will be able to analyze the sweep circuitry and replace the defective components.

CET 213 VIDEO IF AMPLIFIERS AND VIDEO DETECTORS is a course in which the student will be able to troubleshoot a TV receiver with a defective IF stage and locate the defective stage and the defective component within the stage. The student will be able to troubleshoot a TV receiver with video detector faults. The student will use the procedures outlined in the text to determine the defective components.

CET 214 RF AMPLIFIERS, TV TUNERS AND AUTOMATIC FINE TUNING is a course in which the student will troubleshoot a defective tuner and replace any defective components. The student will disassemble, clean contacts, lubricate, and reassemble the VHF tuner. The student will troubleshoot a television receiver that has a defective AFT circuit. The student will determine which components are defective. The student will be able to identify, distinguish between and install VHF and UHF antennas.

CET 215 TV SOUND SYSTEM is a course designed so that the student will be able to discuss the advantages of using FM. The student will be able to describe the FM circuitry used in the sound systems. The student will be able to troubleshoot and repair the FM sound system in any given TV receiver.

Cosmetology

Course Objective

The objective of the Cosmetology course is to provide the student with necessary skills and knowledge which will enable him/her to be licensed by the State Board and be employed as a master cosmetologist.

Background Information

Cosmetology includes a thorough study of all phases of beauty culture in both classroom theory and shop practice. Students are prepared to perform all the services usually available in beauty salons. Ethics and charm, safety practices, sanitation, anatomy and physiology, chemistry, trichoanalysis, salon management and salesmanship are among the subjects provided in classroom instruction. Laboratory instruction covers shampoos and rinses, hair styling, hair cutting, finger waving, permanent waving, scalp treatment, hair re-conditioning, hair coloring, facials, make-up application and manicuring.

Upon satisfactory completion of the course, the student is eligible to take the Cosmetology State Board examination.

Employment Opportunities

Excellent employment opportunities are available for licensed cosmetologists. They may work as hair designers in large and small salons, or they may establish their own shops. Many cosmetologists specialize in certain phases of beauty culture by becoming lecturers, demonstrators, teachers, hair stylists, make-up artists, or trichoanalysts.

LENGTH OF COURSE: Approximately One Year
ENTRANCE DATES: Quarterly, or whenever a vacancy occurs.

COST: Books $75; Kit $90. Additionally, the student must purchase uniforms and white shoes.

REGISTRATION FEE: $8.50
ENTRANCE TEST FEE: $3.00
SUPPLY FEE: See Course Bulletin.
Due each quarter.

Prerequisites for Admission

1. Submit application and take entrance test.
2. Must have a mathematics level equal to the seventh grade.
3. Must have a reading level equal to the eighth grade.
4. Must have formally completed the ninth grade or the equivalent of the ninth grade on the General Education Development Test.

COSMETOLOGY COURSE OUTLINE

	Quarter Hours Credit
First Quarter:	
COS 101 — Customer Relations	2.5
COS 102 — Shop Hygiene	2.5
COS 103 — Shampooing	5.0
COS 104 — Techniques in Hair Styling	10.0
COS 105 — Hair Cuts	5.0
MA 101 — Basic Math	5.0
	30.0
Second Quarter:	
CF 101 — Consumer Finance	5.0
COS 106 — Permanents and Relaxers	10.0
COS 107 — Hair and Skin Analysis	10.0
COS 108 — Corrective Treatments	5.0
	30.0
Third Quarter:	
COS 109 — Facial and Makeup	5.0
CS 101 — Communication Skills	5.0
COS 110 — Permanent Color	5.0
COS 111 — Hair Lightening	5.0
COS 112 — Problems in Hair Color	5.0
COS 113 — Manicuring	5.0
	30.0
Fourth Quarter:	
COS 114 — Anatomy and Physiology	5.0
COS 115 — Depilatories, Light Therapy, Basic Electricity	5.0
COS 116 — Wigs and Hair Pieces	5.0
COS 117 — Salon Management	10.0
COS 118 — Preparation for State Board	5.0
	30.0

COSMETOLOGY

Description of Courses

COS 101 CUSTOMER RELATIONS is a course designed to teach the student the importance of good ethics in relation to his/her employers, patrons, and co-workers.

COS 102 SHOP HYGIENE is concerned with the teaching of bacteriology, sterilization, sanitation, and the chemistry of sanitation in relationship to the student's working environment.

COS 103 SHAMPOOING is a course designed to teach the student about the different type shampoos and their chemistry and makeup, shampoo and rinsing procedures, and safety measures in regard to shampoos and rinses.

COS 104 TECHNIQUES IN HAIR STYLING is a course which places emphasis on: counterclockwise and clockwise shaping of the hair; pin curls; finger waves; skip waves; ridge waves; and identifying types of rollers and procedures involved in rolling hair.

COS 105 HAIR CUTS is a course designed to teach the student the basics in hair cutting design, different type implements to use in hair cutting, and how to section, thin, and taper hair.

COS 106 PERMANENTS AND RELAXERS is a course designed to teach the student the chemical concepts of permanents and relaxers, procedures used in giving permanents, and safety precautions that must be exercised when using such chemicals.

COS 107 HAIR AND SKIN ANALYSIS is a course which places emphasis on the composition, functions, and disorders of skin and scalp. Also covered in this course is composition, structure, analysis, and disorders of hair.

COS 108 CORRECTIVE TREATMENTS is a course designed to familiarize the student with products that can be used to treat dandruff, scalp, and damaged hair problems. Setting lotions and conditioners are also discussed in this course.

COS 109 FACIALS AND MAKEUP is concerned with teaching the student the proper implements and techniques used in applying makeups and giving facials.

COS 110 PERMANENT COLOR is a course designed to teach the student techniques used in hair coloring, types of hair coloring, and procedures used when coloring hair.

COS 111 HAIR LIGHTENING is a course designed to teach the student how to lighten hair, retouch already lightened hair, and to streak and frost hair.

COS 112 PROBLEMS IN HAIR COLOR is a course designed to discuss the "special problems" that are sometimes associated with hair colorings.

COS 113 MANICURING is a course designed to teach the student how to give manicures and detect and remedy nail disorders. Types of instruments used in manicuring are also discussed.

COS 114 ANATOMY AND PHYSIOLOGY is a course designed to teach the student the concepts behind cells, tissues, organs, and systems and how they can relate to cosmetology procedures.

COS 115 DEPILATORIES, LIGHT THERAPY, BASIC ELECTRICITY is concerned with teaching the student about different types of hair removal and the purpose of hair removal. Students also receive basic instruction in electricity and how it applies to the instruments they use.

COS 116 WIGS AND HAIR PIECES is a course designed to teach the student how to correctly clean, set, and comb wigs and hair pieces.

COS 117 SALON MANAGEMENT gives the student instruction in how to properly manage a beauty salon.

COS 118 PREPARATION FOR STATE BOARD is designed to review the necessary material the student must know in order to pass the State Board exam.

MA 101 BASIC MATHEMATICS APPLIED presents an in-depth review of basic arithmetic including whole numbers, decimals, fractions, percents, ratios, proportions, areas, volumes, and formulas as applied to the student's chosen field. Strong emphasis is placed on solution of practical work problems. MA 101 or a satisfactory entrance score is required of all areas.

CF 101 CONSUMER FINANCE is a course designed to help the student become a better consumer. Budgeting, credit, and taxes are included in the course.

CS 101 COMMUNICATION SKILLS is organized to develop the student's ability in written and oral communications, and to increase comprehension and study skills.

Data Processing Technology

Course Objective

The objective of the Data Processing Technology program is to prepare the student for entry level employment in the data processing field.

Background Information

This program provides the student with hands-on experience on the key-to-diskette machine, the keypunch machine, and the computer and its peripherals. The two most widely used computer languages in this area are taught. The student takes related courses in accounting, mathematics, and technical report writing.

Employment Opportunities

The use of electronic data processing equipment is expected to continue to increase very rapidly in future years, thus creating a demand for computer trained people. Graduates of Walker Tech's data processing program are qualified for the following positions: (1) Data Entry Operator, (2) Computer Operator, (3) Computer Programmer, and (4) Control Clerk.

LENGTH OF COURSE:	Four Quarters (One Year)
ENTRANCE DATES:	Fall Quarter Only
COST:	Books and Supplies approximately $150.00.
REGISTRATION FEE:	$8.50
ENTRANCE TEST FEE:	$3.00
SUPPLY FEE:	See Course Bulletin. Due each quarter.

Prerequisites for Admission

1. Submit application and take entrance test.
2. Should have a mathematics and reading level equal to the ninth grade.
3. Must possess a high school diploma or GED, be working toward GED, or be a co-op student.
4. Should be able to type.

DATA PROCESSING TECHNOLOGY COURSE OUTLINE

Fall Quarter:	*Quarter Hours Credit*
DPT 110 — Accounting I	10
DPT 111 — Introduction to Computer Programming	10
DPT 112 — Data Entry	10
	30
Winter Quarter:	
DPT 123 — Computer Operations	5
DPT 124 — RPG II Programming	20
CS 102 — Technical Report Writing	5
	30
Spring Quarter:	
DPT 135 — RPG II Programming	5
DPT 136 — Structured COBOL Programming	20
MA 113 — Business Math I	5
	30
Summer Quarter:	
DPT 147 — Structured COBOL Programming or DPT 148 — Data Entry II	20
MA 122 — Business Math II	5
DPM 101 — Basic Programming	5
	30
*DPT 150 — On-the-Job Training	30

***May be substituted for student's last quarter requirements.**

DATA PROCESSING

Description of Courses

DPT 110 ACCOUNTING I consists of the following units: basic accounting theory and principles, journalizing transactions, posting to the ledgers, trial balance, financial statements, cash receipts, cash payments, petty cash, banking procedures for cash, payroll accounting, accounting for personal

service enterprise, purchases journal, sales journal, accounts receivable, accounts payable, uncollectable accounts, depreciation, work sheet, inventories, adjusting and closing entries, post-closing trial balance, and reversing entries.

DPT 111 INTRODUCTION TO COMPUTER PROGRAMMING is an introduction to computers and data processing for computer science students. It includes how computers operate and how computers are used in all aspects of business.

DPT 112 DATA ENTRY develops job entry level skills in keypunch, key-to-disk equipment, and CRT terminal operation.

DPT 123 COMPUTER OPERATIONS is designed to give students the basic skills necessary to operate the processor, card reader, diskette reader, disk drive, console display, CRT terminals, and line printer.

DPT 124 RPG II PROGRAMMING includes writing programs in RPG II language and applying the language to business problems. All programs are compiled and tested for errors on our computer.

DPT 135 RPG II PROGRAMMING is a continuation of DPT 124 with difficulty of programs being greater.

DPT 136 STRUCTURED COBOL PROGRAMMING includes writing programs in COBOL language and applying the language in the solution of business problems. All programs are compiled and tested for errors on our computer.

MA 113 BUSINESS MATHEMATICS consists of decimals, fractions, percents, and weights and measures (includes metrics).

CS 102 TECHNICAL REPORT WRITING develops techniques in collecting and presenting technical data by written or verbal means of communication. Formal and informal methods and procedures in submitting written and spoken reports are studied. A review of letters of application, resumes, application forms, occupational vocabulary, oral communication, job hunting and human relations on the job are covered.

DPT 147 STRUCTURED COBOL PROGRAMMING is a continuation of DPT 136 with difficulty of programs being greater.

MA 122 BUSINESS MATH II includes interest, discounts, markup, profit and loss, time payment plans, short-term loans, cost of goods sold, inventory valuation, depreciation, essential algebraic operations, annuities, and extinction of debt.

DPM 101 BASIC PROGRAMMING includes writing programs in the BASIC language and applying the language in the solution of business problems. All programs are compiled and tested for errors on a microcomputer.

DPT 101 ON-THE-JOB TRAINING enables the student to apply the principles of data processing by working in a data processing job in business and industry.

Drafting and Design Technology

Course Objective

The Drafting and Design course is designed to develop a skill level which will prepare the student for employment in the drafting field.

Background Information

Engineering drawing is a graphic language that expresses and conveys ideas of shape, size, and construction in all phases of industrial and engineering work. Consequently, drafters translate the ideas, rough sketches, specifications and calculations of engineers, architects and designers into work plans which are used by skilled craftsmen in making a product.

Employment Opportunities

Employment of drafters is rising rapidly as a result of the increasingly complex design of modern problems and products and processes. As the engineering and scientific occupations grow, more drafters will be needed.

LENGTH OF COURSE:	Seven Quarters
ENTRANCE DATES:	Quarterly (When seats are available)
COST:	Books $100 for entire course; Equipment $80.
REGISTRATION FEE:	$8.50
ENTRANCE TEST FEE:	$3.00
SUPPLY FEE:	See Course Bulletin.

Prerequisites for Admission

1. Submit application and take entrance test.
2. Should have mathematics level equal to ninth grade.
3. The student should have a high school diploma or the GED certificate, be working toward obtaining a GED, or be a senior year co-op student.
4. All students must possess the minimum physical and mental standards necessary to carry out all requirements of the Drafting program.
5. Should have above average spatial aptitude.
6. Should have reading level equal to eighth grade.

Outcome: A diploma is issued to those students who complete the required courses.

DRAFTING AND DESIGN COURSE OUTLINE

	Quarter Hours Credit
First Quarter:	
DDT 101 — Engineering Drawing I	20
MA 114 — Applied Geometry	5
CF 101 — Consumer Finance	5
	30
Second Quarter:	
DDT 102 — Engineering Drawing II	20
MA 125 — Applied College Algebra	5
CS 101 — Communication Skills	5
	30
Third Quarter:	
DDT 103 — Engineering Drawing III	25
MA 135 — Applied College Trigonometry	5
	30
Fourth Quarter:	
DDT 201 — Engineering Design I	20
DDT 202 — Structural Steel Detailing I	10
	30
Fifth Quarter:	
DDT 203 — Engineering Design II	15
DDT 204 — Structural Steel Detailing II	10
CS 201 — Technical Report Writing	5
	30
Sixth Quarter:	
DDT 205 — Engineering Design III	20
DDT 206 — Basic Elementary Surveying	5
MA 258 — Elementary Statics & Strength of Materials	5
	30

Seventh Quarter:

DDT 207 — Engineering Design IV 30

*OJT 250 — On-the-Job Training 30

***May be substituted for student's last quarter requirements.**

DRAFTING AND DESIGN

Description of Courses

DDT 101 ENGINEERING DRAWING I (BASIC DRAWING) is an elementary course designed for the student with little or no experience in drafting. The student will be introduced into the field of graphic representation. Emphasis is placed on correct line work, geometrical construction and lettering.

DDT 102 ENGINEERING DRAWING II (BASIC DRAWING) is a continuation of DDT 101. The student gains further skills in methods of graphic representation and a better working knowledge of standards used in industry. Primary emphasis is placed on multiview projection, sectioning primary and secondary auxiliary views, and lettering.

DDT 103 ENGINEERING DRAWING III (BASIC DRAWING) is a continuation of DDT 102. The student gains better working knowledge of revolutions, axonometric projection and basic dimensioning.

DDT 201 ENGINEERING DESIGN I (BASIC DESIGN) is a study involving basic general design and working drawings.

DDT 202 STRUCTURAL STEEL DETAILING I is a study of basic structural steel detailing. The student gains experience in detailing beams, columns, and bracing. The AISC Handbook and Smoley's Handbook are used extensively.

DDT 203 ENGINEERING DESIGN II (ARCHITECTURAL) is a continuation of DDT 201 with emphasis on architectural drafting.

DDT 204 STRUCTURAL STEEL DETAILING II is a course that gives the student experience in detailing gusset plates, skewed, sloped and canted beam connections.

DDT 205 ENGINEERING DESIGN III (SCHEMATICS) introduces the schematical phase of drafting which includes piping and electrical schematics. The student also is introduced to intersection and development.

DDT 206 ELEMENTARY SURVEYING is a course which includes survey theory, leveling, taping, precision, and checks.

DDT 207 ENGINEERING DESIGN IV offers the student the opportunity to spend his/her entire time in the area of specialization he/she has chosen. OJT 250 can be substituted for DDT 207.

OJT 250 ON-THE-JOB TRAINING

MA 114 APPLIED GEOMETRY is a course which begins with a review of ratio and proportion and other basic topics as needed before beginning geometry as such. Geometry covered includes congruent and similar triangles, angles, parallel lines, construction techniques, perimeters, areas, and volumes. Theorem applications are discussed without proofs. Applications are taken with the drafting student in mind.

MA 125 APPLIED COLLEGE ALGEBRA includes the number system, polynomials, algebraic fractions, exponents, and radicals, equations of linear and quadratic, inequalities, functions and relations, and determinants.

MA 135 APPLIED COLLEGE TRIGONOMETRY is a study of trigonometric functions, graphs of trigonometric functions, solution and applications of right triangles, identities, inverse functions, general triangle, complex numbers, logarithms, vectors, and conic sections.

CF 101 CONSUMER FINANCE is a course designed to help the student become a better consumer. Budgeting, credit, and taxes are included in the course.

CS 101 COMMUNICATION SKILLS is organized to develop the student's ability in written and oral communications, and to increase comprehension and study skills.

CS 202 TECHNICAL REPORT WRITING is designed to teach the drafting student appropriate ways to communicate with other technical persons and with the public.

MA 258 ELEMENTARY STATICS AND STRENGTH OF MATERIALS is a course which covers stresses, strains, pressure in pipes, riveted joints, centroids, and moments. Required of Drafting students.

Electrical Construction and Maintenance

Course Objective

The Electrical Construction and Maintenance program is designed to familiarize the student with the different phases found in the electrical maintenance field.

Background Information

The student will gain experience in performing laboratory experiences in residential and commercial wiring, motor controls, AC/DC motors, pneumatics, hydraulics, and welding. Each student's progress will be evaluated through a variety of measuring instruments and techniques, such as written pencil-paper test, performance test, and observations.

Employment Opportunities

Numerous opportunities exist for graduates trained in residential and commercial electricity. As the economy grows, the demand for skilled workers in this field will increase dramatically.

LENGTH OF COURSE: Four Quarters
ENTRANCE DATES: Quarterly (When seats are available)
COST: Books $80.00; Tools $115.00.

REGISTRATION FEE: $8.50
ENTRANCE TEST FEE: $3.50
SUPPLY FEE: See Course Bulletin.
Due each quarter.

Prerequisites for Admission

1. Submit application and take entrance test.
2. Should be able to understand and apply basic mathematical principles equal to the eighth grade level.
3. Should have a high mechanical aptitude.
4. Should have good manual dexterity.

ELECTRICAL CONSTRUCTION AND MAINTENANCE

COURSE OUTLINE

First Quarter:	*Quarter Hours Credit*
BE 101 — Basic Electricity	10
RW 101 — Residential Wiring	10
EC 101 — Electrical Codes	5
MA 101 — Related Math	5
	30

Second Quarter:

RW 201 — Residential Wiring	5
CW 101 — Commercial Wiring	15
MC 101 — Motor Controls	5
MA 115 — Related Math	5
	30

Third Quarter:

MC 201 — Motor Controls	10
WD 101 — Schematic, Wiring Diagrams	5
EM 101 — AC/DC Motors	10
CF 101 — Consumer Finance	5
	30

Fourth Quarter:

P 101 — Pneumatics	8
H 101 — Hydraulics	7
W 101 — Basic Arc and Oxygen/Acetylene Welding	10
CS 101 — Communication Skills	5
	30
*OJT 150 — On-the-Job Training	30

***May be substituted for student's last quarter requirements.**

ELECTRICAL CONSTRUCTION AND MAINTENCE

Description of Courses

BE 101 BASIC ELECTRICITY covers the fundamentals of electricity that will enable the student to have an understanding of the nature, uses and control of electricity in the Plant Maintenance field.

RW 101 RESIDENTIAL WIRING covers the fundamentals of residential wiring, based on the National Electric Code. Lab experiences with testing devices, hand power tools, wire splicing, and wiring are also a major part of this course.

EC 101 ELECTRICAL CODES covers the use of the National Electrical Code, definitions, and how to find needed material in the code. Local electrical codes are covered.

MA 101 BASIC MATHEMATICS APPLIED presents an in-depth review of basic arithmetic including whole numbers, decimals, fractions, percents, ratios, proportions, areas, volumes, and formulas as applied to the student's chosen field. Strong emphasis is placed on solution of practical work problems. MA 101 or a satisfactory entrance score is required of all areas.

RW 201 RESIDENTIAL WIRING is a continuation of RW 101 residential wiring.

CW 101 COMMERCIAL WIRING is a study of wiring in three common situations—where the work is planned in advance, where there is no advance planning, and where repairs are needed. Lab work with commercial tools and materials will be common in the course.

MC 101 MOTOR CONTROLS provides the basic knowledge and laboratory experiences in diagnosing, servicing and wiring electrical motor controls.

MA 115 RELATED MATH.

MC 201 MOTOR CONTROLS is a continuation of MC 101 Motor Controls.

WD 101 SCHEMATIC, WIRING DIAGRAMS provides the basic knowledge and laboratory experience in diagnosing, servicing, and determining operation of components and electrical units.

EM 101 AC/DC MOTORS covers the theory of AC/DC motor operation as well as the controls, accessories, and devices and laboratory experiences using related materials and testing devices necessary for the construction, installation, and testing of motor systems as applied to maintenance.

P 101 PNEUMATICS allows the student to develop knowledge about the basic pneumatic fundamentals relative to the diagnosis, repair and maintenance procedures.

H 101 HYDRAULICS allows the student to develop knowledge about the basic hydraulic fundamentals relative to the diagnosis, repair and maintenance procedures.

W 101 BASIC ARC AND OXYGEN/ACETYLENE WELDING provides the basic knowledge and laboratory experience in arc and acetylene welding.

CF 101 CONSUMER FINANCE is a course designed to help the student become a better consumer. Budgeting, credit, and taxes are included in the course.

CS 101 COMMUNICATION SKILLS is organized to develop the student's ability in written and oral communications, and to increase comprehension and study skills.

Electronic Technology

Course Objective

The Electronic Technology course prepares the student for entry level employment in the electronics field.

Background Information

The student who successfully completes the electronic technician course will have demonstrated a proficiency in applying procedures, engineering mathematics, physics, and related subjects to layout, build, test, troubleshoot, repair, and modify development and production electronic equipment including computers, missile-control, instrumentation, and machine tool numerical control.

The electronic technician will be able to install, test, calibrate and operate electronic devices and equipment. The technician will be required to apply all of the principles of alternating and direct currents; to locate and identify component parts by referring to associated circuit diagrams; and to troubleshoot and make temporary and permanent repairs of the malfunctioning equipment.

The electronic technician must be experienced in recognizing the applicability of electronic test equipment; must be able to interpret and record test data; and must be able to relay facts and concepts mathematically, graphically and orally. The individual may be required to work singly or in support of engineering and scientific personnel.

Employment Opportunities

Currently, job opportunities are excellent for Electronic Technicians. Graduates of Walker Tech's Electronics program have the background to enter the industrial electronics field, the rapidly growing medical electronics field, communications or computers.

LENGTH OF COURSE: Eight Quarters
ENTRANCE DATES: Fall and Spring (When seats are available)
COST: Books approximately $150 for entire course.

REGISTRATION FEE: $8.50
ENTRANCE TEST FEE: $3.00
SUPPLY FEE: See Course Bulletin.
Due each quarter.

Prerequisites for Admission

1. Submit application and take the entrance test.
2. Must possess a high school diploma or GED certificate, be working toward obtaining a GED, or be a senior year co-op student.
3. Must have good mathematics background including at least one year of algebra and equal to the ninth grade level.
4. Should be able to read and interpret technical manuals.
5. Should be able to apply and understand principles of higher math and physics.
6. Should be able to read on the ninth grade level.

ELECTRONIC TECHNOLOGY COURSE OUTLINE

	Quarter Hours Credit
First Quarter:	
MA 125 — Applied College Algebra	5
DPM 101 — Basic Programming	5
ELEC 102 — DC Circuits I	10
ELEC 103 — DC Circuits II	10
	30
Second Quarter:	
MA 135 — Applied College Trigonometry	5
ELEC 101 — Shop Practices	5
ELEC 104 — AC Circuits I	10
ELEC 105 — AC Circuits II	10
	30
Third Quarter:	
ELEC 106 — Electronic Devices I	5
ELEC 107 — Electronic Devices II	15
ELEC 108 — Electronic Circuits I	10
	30
Fourth Quarter:	
CS 101 — Communication Skills	5
ELEC 109 — Electronic Circuits II	10
ELEC 110 — Electronic Circuits III	10
ELEC 112 — Electric Motor Controls	5
	30

Fifth Quarter:

CS 202 — Technical Report Writing	5
ELEC 201 — Intro to Computers	10
ELEC 202 — Computers II	15
	30

Sixth Quarter:

CF 101 — Consumer Finance	5
ELEC 203 — Intro to Microprocessors	10
ELEC 204 — Microprocessors II	15
	30

Seventh Quarter:

ELEC 205 — Industrial Elec I	5
ELEC 206 — Industrial Elec II	10
ELEC 207 — Intro to Instrumentation	10
ELEC 209 — 6502 Computer	5
	30

Eighth Quarter:

ELEC 210 — X-Y Position Control	5
ELEC 211 — Angular Position Control	5
ELEC 212 — Z-80 Assembly Language	5
ELEC 213 — Robotics	5
ELEC 214 — Programmable Controllers	10
	30

ELECTRONIC TECHNOLOGY

Description of Courses

MA 125 APPLIED COLLEGE ALGEBRA seeks to expand the student's analytical thought processes through an increased awareness of algebraic principles as applied to the area of study. *Prerequisite:* MA 101, satisfactory score on entrance exam, or instructor approval.

ELEC 102 DC CIRCUITS I is designed to familiarize the student with some of the basic physical theories that underlie the study of electricity, specifically voltage, current, and resistance. *Prerequisites:* ELEC 101.

ELEC 103 DC CIRCUITS II is designed to familiarize the student with Voltage Dividers and Current Dividers, Network Theorems, Meters, and Magnetism. *Prerequisite:* 101 and 102.

MA 135 APPLIED COLLEGE TRIGONOMETRY is designed to supply the information and necessary practice for a working knowledge of trigonometry. Since a working knowledge of this subject is the aim, applications are emphasized. *Prerequisite:* MA 125 or Instructor Approval.

ELEC 101 SHOP PRACTICES seeks to familiarize the student with Shop Safety and introduce some of the basic hand tools, parts, and equipment used in Electronics. The student will learn the fundamentals of wire preparation, soldering and de-soldering practices.

ELEC 104 AC CIRCUITS I is designed to present the characteristics that make up alternating voltage and current, such as frequency wavelength, phase, period, waveshape, and the measurement of AC; also, a study of inductors and capacitors and their reactance to AC. *Prerequisites:* 101 thru 103.

DPM 101 BEGINNING BASIC is designed to familiarize the student with the fundamental concepts in BASIC Programming. The student will gain experience in performing laboratory experiences in system operations, basic commands, program structure, and microcomputer concepts. As a result of these varied experiences, students will have a greater knowledge of microcomputers and will be prepared for Advanced Basic. The student will train on a TRS-80 Model III. Course length: approximately ten weeks. No prerequisites. Free lab time will be posted.

ELEC 105 AC CIRCUITS II is the study of RC and L/R time constants, resonance and filters. *Prerequisites:* 101 thru 104.

ELEC 106 ELECTRONIC DEVICES I is designed to familiarize the student with some of the basic fundamentals that underlie semiconductor materials, basic diodes and Zener diodes. *Prerequisites:* 101 thru 105.

ELEC 107 ELECTRONIC DEVICES II is designed to familiarize the student with some of the basic fundamentals of transistors, field effect transistors, thyristors, integrated circuits, and optoelectronic devices. *Prerequisites:* 101 thru 106.

ELEC 108 ELECTRONIC CIRCUITS I is a course in which the student will be able to identify basic transistor amplifier circuits, describe their operation, and list the characteristics of each. The student will be able to describe direct current amplifiers, audio amplifiers, video amplifiers, IF amplifiers, and radio frequency amplifiers, including their application in practical electronic systems. *Prerequisite:* ELEC 107.

CS 101 COMMUNICATION SKILLS is organized to improve students' skill in occupational vocabulary, oral communication, job hunting and human relations on the job.

ELEC 109 ELECTRONIC CIRCUITS II is organized so that the student will be able to explain the operation of differential amplifiers, comparators, summing and difference amplifiers, and active filter circuits. The student will be able to analyze and design simple inverting and noninverting amplifiers that use operational amplifiers. The student will be able to identify and explain the operation of power supply rectifiers, filters, and regulation circuits. The student will be able to discuss the basic principles of commonly used LC, RC, and crystal oscillators. *Prerequisite:* ELEC 108.

ELEC 110 ELECTRONIC CIRCUITS II is designed so that the student will be able to explain the operation of pulse shapers, multivibrators, the Schmitt trigger, and ramp generators. The student will be able to explain amplitude and frequency modulation, the heterodyne principle, and modulation and detection circuits. *Prerequisite:* ELEC 109.

ELEC 112 ELECTRIC MOTOR CONTROLS is designed so that the student will be able to identify the symbols of the components used to control electric motors and valves. The student will be able to explain the operation of motor controls and be able to wire a motor to an electric control. *Prerequisite:* ELEC 110.

CS 202 TECHNICAL REPORT WRITING develops techniques in collecting and presenting technical data by written or verbal means of communication. Formal and informal methods and procedures in submitting written and spoken reports are studied. A review of letters of applications, resumes, and application forms is covered. *Prerequisite:* CS 101.

ELEC 201 INTRODUCTION TO COMPUTERS is a study of numbering systems, semiconductor devices for digital circuits, digital logic circuits, and digital integrated circuits. *Prerequisites:* All 100 Course Numbers.

ELEC 202 COMPUTERS II, a continuation of Introduction to Computers, is a study of boolean algebra, flip-flops, shift registers and combinational logic circuits. *Prerequisites:* All 100 Course Numbers and ELEC 201.

ELEC 203 INTRODUCTION TO MICROPROCESSORS is a study of numbering systems, microcomputer basics, computer arithmetic, and an introduction to programming. *Prerequisites:* All 100 Course Numbers, ELEC 201, and ELEC 202.

ELEC 204 MICROPROCESSORS II, a continuation of Introduction to Microprocessors, is a study of the 6800 microprocessor and interfacing it with input and output devices. *Prerequisites:* All 100 Course Numbers, ELEC 201, ELEC 202, and ELEC 203.

ELEC 205 INDUSTRIAL ELECTRONICS I is a study of electronic motor controls; using logic elements, delay functions and solid state relays. *Prerequisites:* All 100 Course Numbers, ELEC 201, ELEC 202, ELEC 203, and ELEC 204.

ELEC 206 INDUSTRIAL ELECTRONICS II is a study of d.c. motors and generators, d.c. motor and generator control circuits, industrial power supplies and digital stepping motors. *Prerequisites:* All 100 Course Numbers, ELEC 201, ELEC 202, ELEC 203, ELEC 204, and ELEC 205.

ELEC 207 INTRODUCTION TO INSTRUMENTATION is a study of photoelectric controls, temperature controls, gas and humidity, pressure and strain measurement, timing systems, telemetry, system interface and process control. *Prerequisites:* All 100 Course Numbers, ELEC 201, ELEC 202, ELEC 203, ELEC 204, ELEC 205, and ELEC 206.

ELEC 209 6502 MICROCOMPUTER is a course using the instruction set for the 6502 microcomputer. The student will be able to write programs in machine language and run them on the model AA355 Computer Trainer. The student will also explore timing considerations, investigate the use of the peripheral interface adapter to control peripheral devices, and demonstrate proper troubleshooting techniques by locating instructor inserted faults.

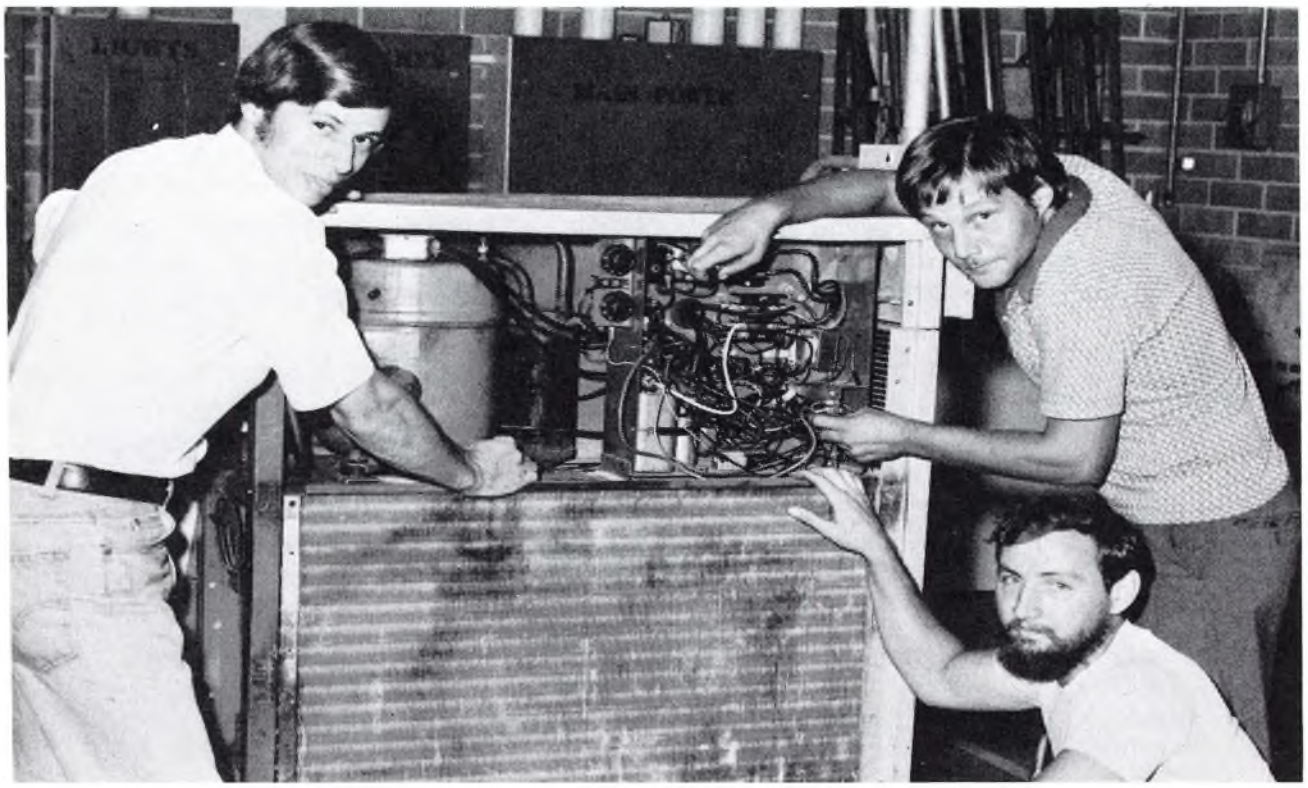
ELEC 210 X-Y POSITION CONTROL is a course in which the student will demonstrate a working knowledge of servo motors, control signals, and the necessary circuitry needed for linear position control. The student will also be able to interface the computer to the X-Y Position Control Trainer and write a program to position the stylus on the X-Y Position Control Trainer to the positions given in chapter 8 of the lab manual.

ELEC 211 ANGULAR POSITION CONTROL is a course in which the student will demonstrate a working knowledge of stepper motors, servo motors, control signals and the necessary circuitry needed for angular position control. The student will be able to interface the computer to the Angular Position Control Trainer and write a program to position the motor on the angular position control trainer to the positions given in chapter 7 of the lab manual.

ELEC 212 Z-80 ASSEMBLY LANGUAGE PROGRAMMING is a course using the instruction set for the Z-80 Microprocessor. The student will be able to write programs in assembly language, assemble them on the Radio Shack computer and debug them to remove any syntax errors.

ELEC 214 PROGRAMMABLE CONTROLLERS is a course in which the student will be able to read and draw ladder diagrams, properly address the input

and output modules, and program the Model 484 Programmable Controller using all of the input and output modules on the trainer. The student will also program the programmable controller to include timers, counters and arithmetic operations (add, subtract, multiply and divide).



Heating and Air Conditioning

Course Objective

The Heating and Air Conditioning course is designed to prepare the student for employment at the entry level in the installation and service of heating and air-conditioning systems.

Background Information

Heating and Air Conditioning is a pre-employment course designed to prepare the student for employment at entry level in installation and service of residential heating and air-conditioning systems. The program of instruction covers both theory and practice, and includes installation and service of refrigeration components used in air conditioning, electrical devices used in both heating and air conditioning, and residential gas and oil furnaces.

Employment Opportunities

The growing demand for air-conditioning and heating systems throughout the nation is providing many job opportunities for skilled technicians who install, service and design such equipment.

LENGTH OF COURSE:	One Year
ENTRANCE DATES:	Quarterly (Fall and Spring Quarters)
COST:	Books $100 for the entire course; Tools $300.
REGISTRATION FEE:	$8.50
ENTRANCE TEST FEE:	$3.00
SUPPLY FEE:	See Course Bulletin. Due each quarter.

Prerequisites for Admission

1. Submit application and take entrance test.
2. Should be able to read and comprehend on the eighth grade level.
3. Should be able to understand and apply basic mathematical principles equal to the eighth grade level.
4. Should have a high mechanical aptitude.
5. Should have good finger and manual dexterity.

RESIDENTIAL HEATING AND AIR CONDITIONING COURSE OUTLINE

First Quarter:	*Quarter Hours Credit*
RHA 101 — Basic Refrigeration	5
RHA 102 — Principles & Practices of Refrigeration	10
RHA 103 — Cycle Components	10
CS 101 — Communication Skills	5
	30

Second Quarter:	
MA 101 — Basic Mathematics Applied	5
RHA 104 — Basic Electricity	10
RHA 105 — Electric Motors and Controls	15
	30

Third Quarter:	
RHA 106 — Heating Fundamentals	6
RHA 107 — Oil Heating	6
RHA 108 — Gas Heating	6
RHA 109 — Piping and Venting	7
CF 101 — Consumer Finance	5
	30

Fourth Quarter:	
RHA 110 — Air-Conditioning Fundamentals	5
RHA 111 — Residential Air Conditioning	5
RHA 112 — Air-Conditioning Systems Repair	10
RHA 113 — Heat Pumps	10
	30
*OJT 150 — On-the-Job Training	30

***May be substituted for student's last quarter requirements.**

RESIDENTIAL HEATING AND AIR CONDITIONING

Description of Courses

RHA 101 BASIC REFRIGERATION covers theory of mechanical refrigeration operation including the refrigeration cycle, as well as the refrigeration controls, accessories, and devices used on residential air conditioners.

RHA 102 PRINCIPLES AND PRACTICES OF REFRIGERATION consists primarily of laboratory experiences using related materials and testing devices necessary for the construction, installation, and testing of mechanical refrigeration systems as applied to air conditioning.

RHA 103 CYCLE COMPONENTS includes the study of the different types of evaporators, condensers, compressors, and metering devices found on residential air conditioners.

RHA 104 BASIC ELECTRICITY covers the fundamentals of electricity that will enable the student to have an understanding of the nature, uses and control of electricity in the residential heating and air-conditioning fields. Laboratory experiences with testing devices, hand power tools, wire splicing and soldering techniques are also a major part of this course.

RHA 105 ELECTRIC MOTORS AND CONTROLS allows the student to develop knowledge about the basic electrical fundamentals relative to the diagnosis, repair and maintenance procedures of electrical motors and circuit controls used in residential heating and air conditioning.

RHA 106 HEATING FUNDAMENTALS is a study of fuels and combustion, heat transfer, and properties of air and air circulation.

RHA 107 OIL HEATING provides the basic knowledge and laboratory experience in diagnosing, servicing, and determining operational efficiency of oil burning equipment.

RHA 108 GAS HEATING introduces the student to the procedures for safety, lighting, testing, and determining, repairing and adjusting gas burning equipment.

RHA 109 PIPING AND VENTING is a study of the national and local standards of pipe fitting and venting.

RHA 110 AIR-CONDITIONING FUNDAMENTALS is a study of the factors and instrumentation involved in the air-conditioning process.

RHA 111 RESIDENTIAL AIR CONDITIONING is an analysis of the design and assembly of the various units that are used for residential air conditioning.

RHA 112 AIR-CONDITIONING SYSTEMS REPAIR consists of mechanical and laboratory solutions to the many problems caused by chemical reactions of various system components and heat.

RHA 113 HEAT PUMPS is the study of the compression cycle heat pump with emphasis placed on the operation and mechanics of the heating cycle components.

OJT 150 ON-THE-JOB TRAINING is a program in which the student is employed in the heating and air conditioning field, his or her last quarter in school, for a minimum of thirty hours per week. The employer evaluates the student on such things as attendance, punctuality, attitude, ability to work with others, ability to work with minimum supervision, eagerness to learn, work proficiency, adaptability and any other area he or she feels should be covered. These reports are sent to the school monthly and the instructor uses them to arrive at a grade at the end of the quarter for the student.

Note: Before being eligible to begin OJT, the student must be recommended for employment by his or her instructor and must have the approval of the coordinator of instruction and the school director.

MA 101 BASIC MATHEMATICS APPLIED presents an in-depth review of basic arithmetic including whole numbers, decimals, fractions, percents, ratios, proportions, areas, volumes, and formulas as applied to the student's chosen field. Strong emphasis is placed on solution of practical work problems. MA 101 or a satisfactory entrance score is required of all areas.

CF 101 CONSUMER FINANCE is a course designed to help the student become a better consumer. Budgeting, credit, and taxes are included in the course.

CS 101 COMMUNICATION SKILLS is organized to develop the student's ability in written and oral communications, and to increase comprehension and study skills.

Machine Tool

Course Objective

The Machine Tool course is designed to prepare the student for employment at the entry level in the machine shop field.

Background Information

The program of instruction covers both theory and practice, and includes installation, care and repair of machines; job interpretation, set up and operation required to complete work in a manner acceptable to industry; and tool care, repair, and basic tool and die making.

Increased emphasis on precision machinery demands that the machinist be thoroughly trained in all phases of machine shop practices. The machinist plans and carries out all operations needed in production of machined products. He selects tools and materials required for each job and plans cutting and finishing operations.

Employment Opportunities

After graduation, students find work in industries, keeping mechanical equipment in good operating order, or in the production department of metal-working industries.

An important advantage of this occupation is that work can be found in all localities and in all industries. Skilled machinists are in great demand wherever tools and machines are utilized.

LENGTH OF COURSE:	Four Quarters (One Year)
ENTRANCE DATES:	Quarterly (When seats are available)
COST:	Books $40 for the entire course; Tools approximately $125.
REGISTRATION FEE:	$8.50
ENTRANCE TEST FEE:	$3.00
SUPPLY FEE:	See Class Bulletin. Due each quarter.

Prerequisites for Admission

1. Submit application and take entrance test.
2. Have a high school or GED diploma or work toward obtaining GED while enrolled.
3. Should be able to read on the seventh grade level. Must possess ability to learn to read blueprints.
4. Should have mathematical level equal to the eighth grade.
5. Should be mechanically inclined and have a strong desire to learn to work with machinery.

MACHINE TOOL COURSE OUTLINE

	Quarter Hours Credit
First Quarter:	
MA 101 — Basic Mathematics Applied	5
MAT 101 — Blueprint Reading	5
MAT 102 — Basic Machine Tool	20
	30
Second Quarter:	
MAT 103 — Intermediate Machine Tool	25
MAT 104 — Blueprint Reading	5
	30
Third Quarter:	
CF 101 — Consumer Finance	5
MAT 105 — Advanced Machine Tool	25
	30
Fourth Quarter:	
MAT 106 — Special Problems	25
CS 101 — Communication Skills	5
	30
*OJT 150 — On-the-Job Training	30

***May be substituted for student's last quarter requirements.**

MACHINE TOOL

Description of Courses

MA 101 BASIC MATHEMATICS APPLIED enables the student to re-establish the fundamentals of mathematics and to develop mathematical skills required of a machinist.

MAT 101, 104 BLUEPRINT READING develops the necessary skills in visualization plus a thorough understanding of the symbols and other representations which commonly appear on machine trade blueprints.

MAT 102 BASIC MACHINE TOOL is a course designed to aid the student who has had little or no experience in the machine trade. The student will be instructed in basic machine shop operations and setups, which include measuring tool precision, bench tools, drill press and lathes.

MAT 103 INTERMEDIATE MACHINE TOOL is a course designed to aid the student in machine shop operations and setups to include drill press, lathes, saws, milling machines and precision measuring tools, with emphasis on better safety accuracy.

CF 101 CONSUMER FINANCE is a course designed to help the student become a better consumer. Budgeting, credit, and taxes are included in the course.

CS 101 COMMUNICATION SKILLS is organized to develop the student's ability in written and oral communications, and to increase comprehension and study skills.

MAT 105 ADVANCED MACHINE TOOL is designed for the student who has a good understanding of the operation of drill, lathes, saws, milling machines, and precision measuring tools. Accuracy will be stressed, basic CNC machines will be taught, as well as surface grinding, and safety.

MAT 106 SPECIAL PROBLEMS is designed to permit the student to complete the study of machine operations and setups using saws, drills, mills, lathes, CNC machines, heat treatment, grinders, and welding. Emphasis will be placed on accuracy and safety.

Microcomputers

Background Information

Consists of short-term programs in Basic Programming, Computer Accounting, and Word Processing.

Presently there are four certificates offered in microcomputers.

1. Completion of DPM 101 and 102
2. Completion of DPM 103
3. Completion of DPM 104
4. Completion of DPM 105

A diploma in Microcomputers is not offered.

Employment Opportunities

Microcomputers offer numerous opportunities in the business field. They are now found in the home, banks, insurance companies, and government agencies.

REGISTRATION FEE: $2.00
SUPPLY FEE: $18.00
(A supply fee must be paid for each class.)

General Information

These courses are offered in the Day and Evening programs. Apply as soon as possible because classes are limited. See class schedule for availability.

MICROCOMPUTERS

Description of Courses

DPM 101 BEGINNING BASIC is designed to familiarize the student with the fundamental concepts in BASIC Programming. The student will gain experience in performing laboratory experiences in system operations, basic commands, program structure, and microcomputer concepts. As a result of these varied experiences, students will have a greater knowlede of microcomputers and will be prepared for Advanced Basic. The student will train on a TRS-80 Model III. Course length: approximately 10 weeks. No prerequisites. Free lab time will be posted.

DPM 102 ADVANCED BASIC is designed to teach the student how to construct a multi-file program using the "menu" format. The student will gain experience in performing laboratory experiences in file manipulation, multi-dimensioned arrays, advanced string functions, debugging, graphics and sub-routines. The student will train on a TRS-80 Model III. Course length: approximately ten weeks. Beginning Basic (DPM 101) prerequisite. Free lab time will be posted.

DPM 103 BASIC III is designed to familiarize the student with Graphics. The student will gain experience in creating graphic displays. The student will be trained on a TRS-80 Model III. The course length will be approximately ten weeks. *Prerequisites:* DPM 101 and 102.

DPM 104 WORD PROCESSING is designed to familiarize the student with the basic principles that govern the operation of any word processing system. The student will gain experience in performing laboratory experiences in operations, systems, documents, and simulations. As a result of these varied experiences, students will have a basic knowledge of the Apple, Commodore, IBM, Wang, Lanier, and CPT word processor. The student will be trained on the TRS-80 Model III. Course length: approximately ten weeks. *Prerequisites:* Must type 40 W/P/M. Free lab time will be posted.

DPM 105 COMPUTERIZED ACCOUNTING is designed to familiarize the student with an accounting package on the microcomputer. The student will gain experience in performing computer accounting functions in general ledger, inventory, payroll, taxes, trial balance and periodic reports. The student will train on a TRS-80 Model III. Course length: approximately ten weeks. *Prerequisites:* A working knowledge of accounting.

Practical Nursing

Course Objective

The Practical Nursing program prepares the student for the State Board Examination for Licensed Practical Nursing and for employment as a practical nurse.

Background Information

The Practical Nursing program leads to eligibility to take the examination given by the State Examining Board for a licensed practical nurse. It prepares the student to work as a member of the nursing team under the direction of a physician or a registered nurse. The student is also instructed to give safe, intelligent, and competent bedside care to selected patients and to assist the registered nurse with the care of the more seriously ill. Part of the trainee's time is spent at the school with emphasis on theory and basic nursing principles. The remainder of the course is spent in arranged clinical facilities for actual on-the-job experiences under a qualified supervisor.

Employment Opportunities

Licensed practical nurses are expected to be in good demand during the 1980's. The need for more workers in this occupation has been due in large part

to the greater utilization of licensed practical nurses for certain kinds of patient care which do not require the skills of a registered professional nurse.

LENGTH OF COURSE:	One Year
ENTRANCE DATES:	March and September
COST:	Uniforms $110; Books $150 year; Miscellaneous Expense $75; Physical for State Board Exam $30-65; and State Board Exam Fee $30-65.
REGISTRATION FEE:	$8.50
ENTRANCE TEST FEE:	$3.00
SUPPLY FEE:	See Class Bulletin. Due each quarter.

Prerequisites for Admission

1. Minimum age of 17½.
2. Must be a high school graduate or possess a GED Diploma.
3. Must have mathematics and reading level equal to the ninth grade level.
4. Interview with instructors.
5. Physical condition and emotional maturity to fulfill satisfactorily the duties of an LPN as certified by a physician.
6. An admissions committee formally evaluates each applicant and makes recommendations concerning acceptance.

ADMISSIONS POLICY FOR PRACTICAL NURSING

1. Classes are admitted twice yearly—in the spring and in the fall. The deadline for applying for the spring class is December 1; the deadline for the fall class is June 1.
2. All admission procedures must be completed before an individual can be considered for admission.
3. An admissions committee formally evaluates each applicant and recommends students to be accepted. All students admitted must be approved by the admissions committee.
4. If a student is not accepted for a nursing class, he or she may apply for the next class; however, it is the responsibility of the student to notify the school that he or she wishes to be considered for the nursing class. Notification should be prior to the deadline for applying.
5. Any student who is denied admission may request a hearing before the admissions committee.
6. Preference in admission is given to residents of Georgia.

PRACTICAL NURSING COURSE OUTLINE

First Quarter:	*Quarter Hours Credit*
PN 101 — Nursing Fundamentals I	10
PN 102 — Personal and Vocational Relations	3
PN 103 — Microbiology	2
PN 104 — Nutrition	5
PN 105 — Anatomy and Physiology	10
	30

Second Quarter:

PN 106 — Maternity Nursing	6
PN 107 — Pediatric Nursing	3
PN 108 — Nursing Fundamentals II	6
PN 109 — Pharmacology	5
PN 110 — Clinical-Maternity	15
	35

Third Quarter:

PN 111 — Conditions of Illness	6
PN 112 — Clinical-Surgical	25
PN 113 — Pediatrics	6
	37

Fourth Quarter:

PN 114 — Conditions of Illness	6
PN 115 — Clinical-Medical	34
	40

PRACTICAL NURSING

Description of Courses

PN 101 NURSING FUNDAMENTALS I combines theory and application of nursing arts beginning with basic nursing care and including the special and therapeutic procedures for patient care. Included are instructions in safety and first aid. References, textbooks, audio-visual aids, nursing arts laboratory, lectures, class discussions, and clinical experience will be used.

PN 102 PERSONAL AND VOCATIONAL RELATIONS is designed to help the student formulate his/her personal relations in Practical Nursing Training. Personality development, relationship of the individual to self, patient, and co-workers, and basic elements of psychology are explored. Methods of teaching will include lectures, class discussions, audio-visual aids and reference readings. Legal aspects, nursing organizations and publications, job opportunities and obligations, and letters of application and resignation are planned within the fourth quarter.

PN 103 MICROBIOLOGY is designed to help the student achieve an understanding of disease as it relates to microorganisms. It explores use of the microscope, types of microorganisms, their structure and behavior. Practical applications of theory concerning microbiology will be in the areas of infection and immunity, methods of destruction of bacteria, environmental control, hospital sanitation, and isolation procedures for communicable diseases. Methods of instruction will be lectures, labs, individual projects, workbooks, and audio-visual aids.

PN 104 NUTRITION gives the practical nursing student a workable knowledge of good nutrition and diet therapy. Instruction in basic food nutrition, diet therapy, basic food requirements, adaption of family menu to prescribed diet for the sick, and the dietary treatment of the more common diseases are given. Textbooks, references, demonstrations, and films are used.

PN 105 ANATOMY AND PHYSIOLOGY is a basic and concentrated course dealing with the structure and function of the body to enable the practical nursing student to gain insight concerning the normal body as a basis for

understanding variations from normal. With such an understanding, he/she will be able to give more intelligent care to the sick. Lectures, reference readings, class discussion, audio-visual aids, charts, human skeleton, and human torso model will be used.

PN 106 MATERNITY NURSING deals with the physiological, psychological, and pathological aspects of pregnancy. Nursing care during the prenatal, labor and delivery, and post partum periods will be emphasized. Care of the newborn will include normal and abnormal conditions, care of the premature infant and neonate. Clinical experience will be allotted for labor and delivery, post partum, nursery and clinics. In addition, texts, references, case studies and audio-visual aids will be used.

PN 107 PEDIATRIC NURSING introduces the student to diseases and disorders associated with the particular age in which they are most frequently seen or in which the disease or disorder has a greater physical and emotional impact on the child and his family. Growth and development are incorporated. The way a child reacts to and copes with stress, separation from family, treatment processes, and the child's developmental level are stressed. Clinical experiences, case studies, texts, references, field trips, and audio-visual aids are used.

PN 108 NURSING FUNDAMENTALS II is an introduction to medical-surgical nursing, and is directed toward helping the practical nursing student to understand the classification and ediology of disease, body disorders, signs and symptoms of illness related to nursing care, diagnostic procedures and the nurse's responsibility in their administration. The student will investigate care and needs of the mentally ill patient and of the terminally ill patient. Nursing care of the medical, surgical, geriatric, and chronically ill patient and rehabilitation with emphasis on the basic needs of man are included. These subjects will be covered in the medical-surgical course (Conditions of Illness). Nursing arts, audio-visual aids, clinical and laboratory facilities, texts, and references are used.

PN 109 PHARMACOLOGY provides a foundation for preparing and administering medications, beginning with basic concepts. Conversion within and between systems (household, metric and apothecary), calculation of dosage problems, accuracy, and the moral and ethical responsibility of drug administration will be emphasized. Classification, effects and usage, contraindications, and adverse reactions will be incorporated throughout the course. Lectures, texts, drug cards, charts, audio-visual aids, laboratory, and equipment for drug administration are used.

PN 111, 114 CONDITIONS OF ILLNESS I AND CONDITIONS OF ILLNESS II, based on concepts learned in Fundamentals II, deals with disease processes and/or illness as related to the body systems. Special emphasis will be placed on cardinal signs and symptoms, specific treatment and nursing care, and psychological implications as related to specific illnesses and disorders. Care plans, texts, references, audio-visual aids, varied clinical experiences, lectures, and class discussions will be used.

Secretarial Science

Course Objective

The Secretarial Science program is designed to familiarize the student with the different phases found in the secretarial occupation.

Background Information

The student will gain experience in performing classroom experiences in typing, shorthand, transcription, bookkeeping, office machines, filing, office procedures, and word processing. The student will be using modern office equipment such as the electronic typewriter and word processor. Each student's progress will be evaluated through a variety of measuring instruments and techniques, such as written pencil-paper test, performance test, and observations.

Employment Opportunities

Numerous opportunities exist for business education graduates in private and public enterprises of practically every kind—particularly in manufacturing firms, banks and insurance companies and governmental agencies.

LENGTH OF COURSE:	One Year
ENTRANCE DATES:	Quarterly (When seats are available)
COST:	Books (approximately $150 for the entire course).
REGISTRATION FEE:	$8.50
ENTRANCE TEST FEE:	$3.00
SUPPLY FEE:	See Course Bulletin. Due each quarter.

Prerequisites for Admission

1. Submit application and take entrance test.
2. Should have mathematics level equal to the eighth grade.
3. Should have reading level equal to the eighth grade.
4. Must have a high school diploma or the equivalent, be a senior co-op student, or be working toward obtaining the high school equivalency diploma.

Outcomes: A diploma is issued to those students who complete the required courses. A certificate is issued to those students who do not complete the required courses.

SECRETARIAL SCIENCE COURSE OUTLINE

	Quarter Hours Credit
First Quarter:	
BUS 101 — Typewriting I	10
BUS 105 — Shorthand I	10
MA 101 — Basic Math	5
CS 101 — Communication Skills	5
	30
Second Quarter:	
BUS 102 — Typewriting II	10
BUS 106 — Shorthand II	10
ACC 113 — Business Math	5
BUS 111 — Office Machines/Records	5
	30
Third Quarter:	
BUS 103 — Typewriting III	5
BUS 107 — Shorthand III	10
BUS 116 — Transcription I	5
ACC 101 — Bookkeeping	5
CF 101 — Consumer Finance	5
	30
Fourth Quarter:	
BUS 104 — Typewriting IV	5
BUS 108 — Shorthand IV	10
BUS 117 — Transcription II	5
BUS 109 — Office Procedures	5
DPM 104 — Word Processing	5
	30

*OJT 150 — On-the-Job Training

*BUS 160 — Internship

***May be substituted for student's last 5 weeks requirements.**

SECRETARIAL SCIENCE

Description of Courses

BUS 105 SHORTHAND I is a course designed to teach the student the basic principles of shorthand theory.

BUS 101 TYPEWRITING I is a beginning course for the student. The keyboard is introduced and drilled while the basic theory of typewriting is taught and reinforced. Special attention is devoted to the learning of proper techniques.

MA 101 BASIC MATH is a review of basic arithmetic including whole numbers, decimals, fractions, percents, ratios, proportions, areas, volumes, and formulas.

CS 101 BUSINESS ENGLISH is a basic English course, principally dealing with parts of speech, sentence structure, capitalization, and using words effectively.

BUS 106 SHORTHAND II is a course designed to conclude the teaching of shorthand theory and begin a review of the basic principles with an introduction to speed building.

BUS 102 TYPEWRITING II/TASK SIMULATION develops the advancement of correct techniques, all forms of business correspondence, intricate tabulation, rough drafts and manuscripts.

BUS 113 BUSINESS MATH is a fundamental course for the business student, which introduces some of the more common arithmetical computations used in the business world today. Basic mathematical processes are learned, practiced, and then applied.

BUS 111 OFFICE MACHINES/RECORDS MANAGEMENT are two courses combined into one. Office Machines is designed to acquaint the student with the skill and use of the electronic printing calculator. Records Management includes criteria by which records are created, stored, retrieved, retained, and disposed of; alphabetic, numeric, subject, and geographic rules are covered.

BUS 107 SHORTHAND III is a course designed to continue reviewing the basic principles, with primary emphasis on speed building and transcription of mailable letters.

BUS 103 TYPEWRITING III (POSITION SIMULATION I) is a course in which the student learns to type various forms and letters that are used in a medical, legal, accounting, and sales office.

BUS 116 GENERAL TRANSCRIPTION is a course utilizing voice recorded media or dictation as a source of impulse-to-type. Consideration will be given to correspondence, memorandums, reports, and other documents.

ACC 101 BOOKKEEPING is a basic course in Accounting. Collecting, summarizing, analyzing, and reporting information are stressed.

CF 101 CONSUMER FINANCE is a course designed to help the student become a better consumer. Also covers how to choose the appropriate approval.

BUS 108 SHORTHAND IV is a course designed to conclude the review of basic principles, and continues speed building and transcription of mailable letters.

BUS 109 SECRETARIAL OFFICE PROCEDURES is a course emphasizing career awareness, work simplification, communication skills improvement, specialized business terminology, and building of effective human relationships necessary for secretarial job stability.

COST: Books $70. Students must purchase gloves and welding helmet at an additional cost of approximately $30.

REGISTRATION FEE: $8.50
ENTRANCE TEST FEE: $3.00
SUPPLY FEE: See Class Bulletin.

Prerequisites for Admission

1. Submit application and take entrance test.
2. Should be in good physical condition.
3. Should be free of any respiratory or eye ailments.
4. Should have the ability to learn to read blueprints.
5. Should be able to read on the eighth grade level.

WELDING COURSE OUTLINE

	Quarter Hours Credit
First Quarter:	
MA 101 — Applied Basic Math	5
WLD 102 — Arc Welding	20
WLD 103 — Oxyacetylene Welding	5
	30
Second Quarter:	
WLD 104 — Metallic Inert Gas Welding	10
WLD 105 — Advanced Arc Welding	10
WLD 101 — Blueprint Reading	5
CF 101 — Communication Skills	5
	30
Third Quarter:	
WLD 107 — Pipe Welding	15
WLD 108 — Tungsten Inert Gas Welding	10
WLD 109 — Weld Testing	5
	30
*OJT 150 — On-the-Job Training	30

***May be substituted for student's last quarter requirements.**

WELDING

Description of Courses

WLD 101 WELDING BLUEPRINT READING develops the necessary skill to interpret conventional trade drawings, plus a thorough understanding of abbreviations and symbols.

WLD 102 ARC WELDING requires a knowledge of safety, metals, electrodes, power source, and welding in the flat, horizontal, and vertical positions.

WLD 103 OXYACETYLENE WELDING includes a study of safety, lighting and adjusting the torch, and welding in the flat, horizontal, and vertical positions.

WLD 104 METALLIC INERT GAS WELDING (MIG) requires a knowledge of consumable wire electrodes, shielding gases, and power supplies; welding in the flat, horizontal, and vertical positions.

WLD 105 ADVANCED ARC WELDING is a continuation of WLD 102 with emphasis on overhead welding with E-6010 electrodes and all position welding with low hydrogen group electrodes.

WLD 107 PIPE WELDING is designed to give the student practice in joining pipe sections. Pipe can be welded using the roll method to keep the welding in a flat position, or by the vertical and horizontal fixed positions where the pipe remains stationary.

WLD 108 TUNGSTEN INERT GAS WELDING (TIG) familiarizes the student with hard-to-weld metals such as aluminum, stainless steel, and other metals.

WLD 109 WELD TESTING is designed to show the student what may happen if defects in welding aren't eliminated, and proper procedure for passing certification test.

MA 101 BASIC MATHEMATICS APPLIED presents an in-depth review of basic arithmetic including whole numbers, decimals, fractions, percents, ratios, proportions, areas, volumes, and formulas as applied to the student's chosen field. Strong emphasis is placed on solution of practical work problems. MA 101 or a satisfactory entrance score is required of all areas.

CF 101 COMMUNICATION SKILLS is organized to develop the student's ability in written and oral communications, and to increase comprehension and study skills.