

Day Division 1977-78

Isabel Johnson
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Albuquerque Technical Vocational Institute

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IN CONTENT AND FORM.

David E. Smoker

David E. Smoker, Director
Student Services Division
Albuquerque T-VI
May 16, 1977

DAY DIVISION 1977-78

ALBUQUERQUE TECHNICAL-VOCATIONAL INSTITUTE

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Albuquerque, NM 87106

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Volume XIII

May, 1977

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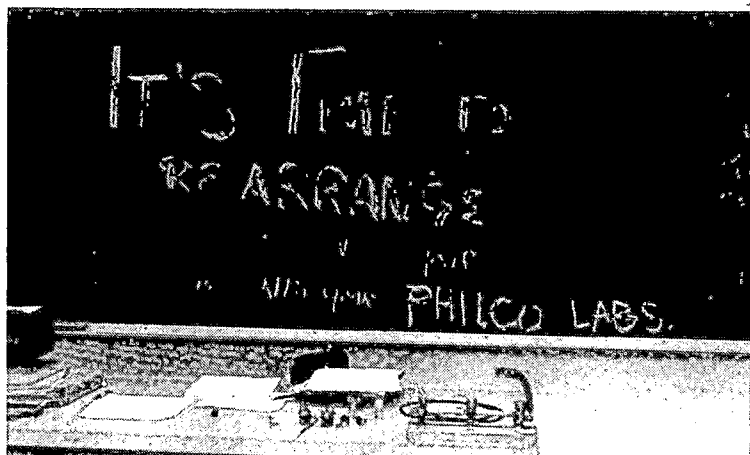


Contents

General Information	1
Accreditation	1
School Year	1
Class Schedules	1
Trimester Calendar	2
Instructional Programs	4
Admissions Procedures	4
Charges and Fees	6
Attendance Policies	7
Student Records	7
Student Services	8
Standards of Progress	9
Certifications	9
Testing Services	9
Financial Assistance	10
Instructional Materials Center	11
Map	12
Application	29

Instructional Programs

Preparatory Program	14	Trade and Industrial	43
Business Occupations	16	Air-Conditioning, Heating and Refrigeration	44
Accounting	16	Automotive Collision Repair	46
Distributive Education	19	Automotive Mechanics	47
Fashion Merchandising	19	Carpentry	49
Office Occupations	20	Diesel Mechanics	50
Refresher Course for Office Workers	23	Electrical Trades	52
Sales Management	24	Food Service	
Small Business Operation	25	Baking	53
Health Occupations	26	Culinary Arts	54
Nursing Assistant	27	Machine Trades	55
Patient Service Clerk	28	Masonry	57
Practical Nursing	33	Plumbing	58
Respiratory Therapy Technician	34	Sheet Metal	59
Technologies	36	Small Engine Mechanics	60
Data Processing	36	Welding	61
Drafting Technology	38		
Electromechanical Drafting	40		
Electronics	41		



Trimester Calendar 1977-78

FALL TRIMESTER 1977

July 25-August 12	Evening Division Preregistration
August 10, 11, 12	Day Division Registration
August 30-31	Evening Division Registration
September 6	Day Division Classes Begin
September 12	Evening Division Classes Begin
October 26	Mid-Trimester Grades Due
October 27-28	Teacher Inservice (No Classes)
November 24-25	Thanksgiving Holiday
December 9	Withdrawal Deadline
December 23	Last Day of Classes
December 24-January 3	Trimester Break

WINTER TRIMESTER, 1978

November 21-December 9 (except November 24-25)	Evening Division Preregistration
December 14, 15, 16	Day Division Registration
December 28-29	Evening Division Registration
January 4	Day Division Classes Begin
January 9	Evening Division Classes Begin
February 24	Mid-Trimester Grades Due
March 24	Easter Holiday
April 5	Withdrawal Deadline
April 19	Last Day of Classes
April 20-30	Trimester Break

SUMMER TRIMESTER, 1978

March 27-April 7	Evening Division Preregistration
April 10, 11, 12	Day Division Registration
April 26-27	Evening Division Registration
May 1	Day Division Classes Begin
May 8	Evening Division Classes Begin
May 29	Memorial Day Holiday
June 23	Mid-Trimester Grades Due
July 1-4	Independence Day Holiday
August 4	Withdrawal Deadline
August 18	Last Day of Classes
August 19-September 4	Trimester Break

1977

S M T W T F S

SEPTEMBER

4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

Labor Day, Sept. 5

S M T W T F S

OCTOBER

						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Mid-term, Oct. 26
In-service, Oct. 27-28

S M T W T F S

NOVEMBER

		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

Thanksgiving, Nov. 24-25

DECEMBER

		1	2	3		
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Trimester Break,
Dec. 24-Jan. 3

1978

JANUARY

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

FEBRUARY

			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

Mid-term, Feb. 24

MARCH

			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Easter Holiday,
March 24

APRIL

						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

Trimester Break,
April 20-30

MAY

	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Memorial Day, May 29

JUNE

			1	2	3	
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

Mid-term, June 23
Independence Day
Holiday, June 29-July 4

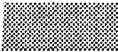
JULY

2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

AUGUST

			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Trimester Break,
Aug. 19-Sept. 4

 =Non school day

Instructional Programs

The DAY DIVISION program at the Institute provides full-time instruction leading to certificates of completion in the 28 career fields listed in the table of contents.

A Preparatory Program is offered for persons who do not qualify for immediate acceptance into one of the vocational programs. Persons may also study for the General Educational Development (GED) high school equivalency exams in this program.

Full-time students in the Day Division attend classes five or six hours a day. They may also enroll in any additional courses desired on a space-available basis. Persons not working towards a certificate may enroll on a part-time basis as special students in specific courses if space is available.

The EVENING DIVISION offers close to 100 *Skill Improvement* classes to part-time students for business, trade and industrial, health and technical occupations. The *Adult Basic Education* section offers a variety of classes for improvement of written and spoken communication skills, math, family money management and GED examination subjects. This section also includes a citizenship program for aliens. The *Apprenticeship Program* includes classes for some of the construction trades and is operated in cooperation with various labor-management Joint Apprenticeship Committees. A *Vocational Enrichment Program*, providing vocational classes for high school students at their schools after regular school hours, is also sponsored by T-VI's Evening Division.

Complete information about the evening programs, which are also tuition-free to New Mexico residents, is available in the *Evening Division* catalog.

Admissions Procedures

The Institute's Day Division programs are designed for adults who do not have a marketable skill and who are willing and able to pursue an instructional program 25 to 30 hours per week. To enter the Day Division programs, a student should be either 18 years of age or a high school graduate. However, persons less than 18 years of age are eligible to apply if they have been excused from compulsory attendance in a secondary school under the provisions of Section 77-10-2 NMSA 1953 as amended.

Applications for admission to the Institute are handled on a first-come, first-served, space-available basis. All of the programs offered have some minimum requirements in math and communication skills and some applicants may need to enter the Preparatory Program to strengthen these basic skills before beginning a vocational program. Some programs have additional prerequisites, listed with the program descriptions, which must be met before the applicant can be admitted to that particular program.

No person shall be denied admission to any T-VI program on the basis of ethnic background, sex or creed.

The admissions process is aimed at helping each applicant enter a career field in which his or her chances for success are good. For that reason, an applicant will be *discouraged* from entering a program for which he or she does not meet minimum physical requirements or academic preparation. The applicant will be *denied* admission to a program where a health or physical condition poses a danger to the applicant or to fellow students. In the latter case, the admissions counselor will help the applicant find a program in which the condition will not pose a hazard nor prevent the student from completing required assignments.

In those programs which include paid on-the-job training among graduation requirements, T-VI will have sufficient training stations arranged so each student can be given one or more interview leads. The student has an obligation to interview for the training station leads provided. Students in paid on-the-job training must conform to personnel policies of the cooperating employer.

The Day Division admissions process gives first priority to persons who do not have a salable skill. *A student who has already obtained a salable skill by successfully completing a T-VI program will be admitted to a new T-VI career field only after first-priority applicants have been considered. This restriction applies for 12 months after graduation.* Applicants wanting to enroll for less than 15 hours a week also will be admitted only after first-priority applicants have been considered. Persons wanting less than a full-time program are encouraged to consider T-VI Evening Division classes.

How To Apply

You must complete the four steps described below before you are admitted. Once you have decided to come to T-VI, you should try to complete all four steps as quickly as possible. Missing a test date or interview appointment will delay completion of the steps and may cause you to be disappointed at finding the program of your choice has already been filled for the trimester you want.

1. COMPLETE AN APPLICATION FORM. These are available at the T-VI reception desk or in the counseling offices of most high schools in the state. Bring or mail your completed application to the T-VI Admissions Office. The office is open 8 a.m. until 5 p.m. Mondays through Fridays.

NOTE: There are special application periods—and special application forms—for two of the Health Occupations. Application for these two programs must be made in person at T-VI by the applicant or a representative during the time periods listed below:

—For the Practical Nursing class beginning in Sept. 1978, applications will be accepted only between 8 a.m. and 12 noon on March 1, 2 and 3, 1978.

—For the Respiratory Therapy Technician class beginning in Sept. 1978, applications will be accepted between May 1 and May 26 only.

2. YOU WILL BE SCHEDULED FOR AN ADMISSIONS TEST related to your chosen program when your application is received.

3. YOU WILL BE SCHEDULED FOR AN ADMISSIONS INTERVIEW with the program coordinator and a counselor after you take the admissions test. Using the test results and the admissions guidelines detailed earlier in this section, the counselor will talk with you about the programs of interest to you and will tell you the programs for which you have qualified.

4. FEES MUST BE PAID IN FULL when the counselor has approved admission in order to complete the process. If the program and trimester you want are already filled, you will be admitted on "standby" for that trimester and be given a reservation in the earliest trimester for which an opening exists in the program you want.

When all four steps have been completed and you are officially admitted, you will be told when to come for registration. Your class schedule will be ready on registration day, and when you have your approved schedule, you will be ready to report for classes on the first day of the trimester.



Charges and Fees

TUITION: For non-residents of New Mexico, tuition is \$400 per trimester, or \$18 per trimester hour for schedules of less than 22 hours per week.

For residents of New Mexico, including dependents of and members of the armed forces stationed on active duty in New Mexico, there is no tuition charge.

All tuition charges must be paid in full by the close of registration day.

Anyone who has paid tuition and withdraws before the end of a trimester will be refunded the unused part of the tuition fee.

Payments in lieu of tuition are requested from agencies that are authorized to pay the training expenses of students referred to the Institute.

REGISTRATION FEE: There is a \$10 registration fee each trimester, which must be paid before the applicant is admitted. *Payment of the registration fee reserves the applicant a place in classes only through the close of the final registration day.* Unless the applicant has requested, in writing, an extension of the reservation beyond the formal registration days, his or her place in classes may be filled by another applicant during the late registration process.

The registration fee is a charge for processing the applicant's admission and is not refunded once it has been

paid. A refund of the registration fee will be made only if the Institute cancels an instructional program to which applicants have been admitted.

PERSONAL EQUIPMENT FEE: Many programs at T-VI require the students to buy personal equipment, such as uniforms in the health occupations and tool kits in the skilled trades. Students will be issued the equipment, purchased by T-VI at the most advantageous educational institution prices, during the early part of the program and the equipment is thereafter the personal property of the student.

Personal equipment fees must be paid in full before the student is officially admitted. Refunds of the personal equipment fee will be made if the applicant withdraws before the equipment has been issued; *once it has been issued, no refund can be made.*

In some programs, there is a once-only personal equipment fee at the beginning. In other programs additional equipment fees are charged at each level, as the students need to add to their personal equipment at the advanced levels.

Personal equipment fees in effect during 1977-78 are as follows:

	Level I	II	III	IV	V
PREPARATORY	none				
BUSINESS OCCUPATIONS	none				
TECHNOLOGIES					
Drafting Technology	\$25	\$25 (Civil/Map option only)			
Electromechanical Drafting	\$25				
HEALTH OCCUPATIONS					
Nursing Assistant	\$25				
Patient Service Clerk	\$25				
Practical Nursing	\$65				
Respiratory Therapy Technician	\$65				
TRADES AND INDUSTRIAL					
Air-Conditioning, Heating and Refrigeration	\$65	\$35	\$35		
Auto Collision Repair	\$65	\$35			
Auto Mechanics	\$65	\$35	\$35		
Baking	\$35				
Carpentry	\$65	\$35			
Culinary Arts	\$65	\$35			
Diesel Mechanics	\$65	\$35	\$35	\$35	\$35
Electrical Trades	\$65	\$35			
Machine Trades	\$75	\$35	\$35		
Masonry	\$65	\$35			
Plumbing	\$65	\$35			
Sheet Metal	\$65	\$35			
Small Engine Mechanics	\$65	\$35			
Welding	\$65	\$35			

BOOKS AND SUPPLIES: Textbooks are loaned free to all full-time students, but they must be paid for if the student loses or damages them. *Students are required to make a \$10 textbook deposit when they are admitted.* The deposit will be refunded when the student returns all the textbooks upon leaving the Institute or if the applicant withdraws before receiving any textbooks.

Students are responsible for buying their own routine school supplies, such as paper, notebooks and pencils.

CREDIT CARDS: The Institute accepts BankAmericard, Entree and Master Charge credit cards for payment of tuition and fees.

Attendance Policies

Anyone admitted to T-VI agrees to attend all sessions of every course as a condition of admission. *Attendance is taken every class hour, and absences become part of the student's permanent record.*

In the event of an absence, the student is responsible for contacting the instructor to arrange for makeup of work missed. Such makeup work will be recorded by the teacher in a grade book.

A person who does not attend the first two days of classes will be withdrawn automatically as a "no show" and will be re-admitted only if there is still space available in the desired classes.

A student whose attendance record shows excessive absences in one or more classes will be mailed a warning and asked to meet with a counselor to try to solve the problems causing these absences.

ATTENDANCE PROBATION: A student who continues to be absent after the warning will be placed on probation and is subject to suspension from the class or classes in which the absences are occurring if there are additional absences.

SUSPENSION: A student who continues to be absent while on probation will be suspended from the class or classes for the balance of the trimester and must re-apply at the Admissions Office if he or she wishes to re-enter the Institute in a future trimester.

STUDENT APPEALS COMMITTEE: A student suspended for violation of attendance probation, or for disruptive behavior, has the right to appeal the suspension to a Student Appeals Committee.

After hearing the appeal by the suspended student, the Student Appeals Committee must recommend to the Vice President either: (1) that the suspension for the balance of the trimester be carried out, or (2) that the student be readmitted to classes under further probation.

VETERAN'S TRAINING BENEFITS will be terminated whenever a student reaches the suspension point.

Student Records

Permanent records are maintained for each student who attends the Institute. The permanent transcript shows the amount of instruction each student has received, whether course credits are by full completion or waiver, and whether the program of studies was partial or complete. It also records all final grades and/or proficiency ratings earned.

Most students authorize T-VI to provide confidential copies of transcripts to bona fide employers and to other educational institutions as a part of the admissions process. *A student who does not want the transcript sent to prospective employers or other schools may indicate this at any time on his or her transcript by visiting the Student Records Center.*





Student Services

The Student Services Division provides assistance to applicants, students and graduates in matters related to admissions, testing, counseling and career guidance, attendance accounting, student records, student financial aids and job placement.

COUNSELING: Professional counselors are available to help applicants select a career field and to advise students who have any problems related to their studies at the Institute. Applicants and students may request to see a counselor at any time.

STUDENT RECORDS: A student or former student may examine any or all documents in his/her student record file at any time during the regular working hours of the Student Records Center. The center also provides free of charge, on request, a copy of the student's transcript to employers and to other educational institutions.

JOB PLACEMENT: Finding a job after leaving the Institute is a responsibility of the student and use of the free New Mexico State Employment Service is recommended. However, T-VI has a placement assistance office and any student or graduate may establish a placement file there at any time when seeking a job.

HEALTH SERVICES: A student health office, staffed by a nurse, is available for students wanting advice regarding a health problem or who become ill or require first aid while at school.

FOOD SERVICES: A student lounge and snack bar offers short order food service throughout the day, Monday through Friday.

HOUSING: There are no student housing facilities on the campus, and students are responsible for obtaining their own housing.

TRANSPORTATION: Parking facilities are available for students and permits free of charge. However, because parking is limited, students are encouraged to form car pools or use city buses whenever possible. Full-time T-VI students are entitled to buy student discount passes for Albuquerque city buses. Students with severe financial needs may apply for transportation assistance at the Student Financial Aids office.



Standards of Progress

Progress reports are given each student at the mid-point and end of each trimester or unit of study. Final progress reports become part of the student's permanent records at T-VI.

Some classes at T-VI use letter grades in the progress reports: "S" (Satisfactory), "A" (Excellent), "B" (Above Average), "C" (Average), "I" (Incomplete) and "U" (Unsatisfactory). Minimum grades for which credit is granted are "C" or "S."

Other courses at T-VI use proficiency ratings. In these classes, performance objectives are clearly defined, and the student receives progress reports detailing the skills mastered in each of the specific skills identified as objectives for the class. The rating sheets are the progress reports for these classes, and those with sufficient achievement also result in a final grade of the transcript.

A student who receives either an "I" or "U" final grade for a course may not enroll for any other course where the unsatisfactorily completed course is a prerequisite. An "I" grade can be converted to a credit grade by satisfactorily completing the missing work; a "U" grade can be made up only by repeating the course.

ACADEMIC PROBATION: A student who receives an "I" or "U" final report in any course is automatically placed on academic probation for the next trimester in which he or she enrolls and may be terminated from the program at any time he or she is doing less than satisfactory work during the probationary trimester. If, at the end of the probationary trimester, the student again receives an "I" or "U" in any course, the student will not be allowed to continue in the same T-VI program.

ACADEMIC SUSPENSION: A student who fails to make satisfactory progress toward a certification goal during the last three trimesters attended will be placed on academic suspension for a period of one year and may not enroll in the Day Division at T-VI during the year of suspension.

Certifications

Certificates of completion or diplomas are awarded to students who successfully complete the requirements listed in the individual program descriptions for one of the identified job-entry-level exit points (see individual program descriptions for details on approved exit levels).

CREDIT BY EXAMINATION: A student may be given credit by examination, and a course in the program requirements waived, by demonstrating the knowledge or skill required for successful completion of that course. A waiver request form is available which requires the approval of the course instructor, program coordinator, department chairman and the Director of Student Services. The student will be required to take a final examination for the course or otherwise demonstrate competency. Credit by approved waiver may be applied toward meeting certificate of completion requirements and prerequisite requirements for advanced courses. Forms may be obtained in the department chairman's office.

Testing Services

The Testing Center at T-VI provides a variety of services free of charge, including administration of the General Educational Development (GED) examinations for a high school equivalency diploma. Any New Mexico resident 18 years of age or older, who is not a high school graduate but whose high school class has graduated, may apply to take the GED exams in either English or Spanish.

Persons are encouraged to take a brief sample exam to see if they are ready for the GED before taking the five-part GED test. Those who are not ready may take free classes in the day or evening to prepare for the exam. Information about the GED examination schedule can be obtained by calling the Testing Center at T-VI, 843-7250, ext. 217.

The Testing Center also gives a variety of tests to persons who apply for admission to a full-time program. The test results are used by admissions counselors to help the applicant determine which of the training areas at T-VI appears best to match the applicant's aptitudes and abilities.

Financial Assistance

The Institute has no provisions for financial aid to students from its general operational funds. However, many students attending T-VI are eligible for financial assistance from other agencies while they are in school.

Financial aid information is available from T-VI's Student Financial Aids Manager (Room A-119). Some of the forms of financial help available are:

BASIC EDUCATIONAL OPPORTUNITY GRANT (BEOG): Students in financial need attending more than half-time *in a Day Division vocational major of two or more trimesters in length*, and who have not previously received a Bachelor's degree from any institution, may apply for a federal grant under the BEOG program.

The amount of the grant which a student may be given depends upon how much the U.S. Congress appropriates for BEOG in any particular year. During 1976-77, the maximum full-year grant for a T-VI student was \$762 for in-state residents.

To apply, the student must complete a detailed application form which tells all of the financial resources available to him or her. The completed application is evaluated by a national center to determine how much the student and/or student's family is able to contribute toward the cost of attending the institution.

A student eligible for a BEOG will be issued an equal portion of the total fiscal year grant each trimester attended during that fiscal year, so long as the student continues to attend and meet BEOG eligibility requirements.

The BEOG is intended to be the base upon which other kinds of student financial aid may be added as needed, and no other kinds of financial aid will be considered until the student has established need through the BEOG application. A student may then apply for other kinds of financial aid in addition to the BEOG if need has been demonstrated.

NEW MEXICO STUDENT LOAN PROGRAM (NMSL): New Mexico residents are eligible to apply for a loan of no more than \$750 per trimester each trimester they attend T-VI *in a vocational major of two or more trimesters in length*, with a limit of \$2000 each calendar year attended.

The loans are made by the State of New Mexico under the Federally Insured Student Loan Program and are to help full-time students defray normal educational expenses including room and board, clothing, transportation and fees. Interest rate is seven percent annually but the interest is paid by the federal government while the student is attending school. The student must begin repayment of the loan and interest charges 12 months after graduation or withdrawal from school. The repayment plan calls for a minimum monthly payment of \$30.

At T-VI, students awarded an NMSL place the full loan amount into an escrow fund and then receive a monthly portion of their loan, in advance the first of each month while they are attending the Institute in good standing. *If the student leaves school, or is placed on either attendance or academic probation, the unused balance is returned to the State and the student owes only that amount which has actually been issued.*

COLLEGE WORK-STUDY (CWS): A limited number of full-time students can be employed by T-VI under the federal CWS program. Applicants must have a high school diploma or GED equivalency in order to be eligible. CWS application forms are available at the T-VI Student Financial Aids office.

VETERANS BENEFITS: Most Day Division programs at T-VI are approved by the State Department of Education for Veterans Administration education and training benefits. In addition to service veterans, persons entitled to benefits include children and widows of deceased veterans and dependents of veterans with 100 percent disability classifications. *However, no person may be approved for VA benefits for refresher training in a course or program for which he or she already has required skills, regardless of where those skills were learned.*

Information about eligibility for these education benefits can be obtained from the nearest VA office, from the VA representative stationed on the T-VI campus (Room A-28), or from T-VI's Office of Veterans Affairs (Room A-119).

The Albuquerque VA office is at 500 Gold SW, phone 766-3361 (disabled veterans phone 766-2221).

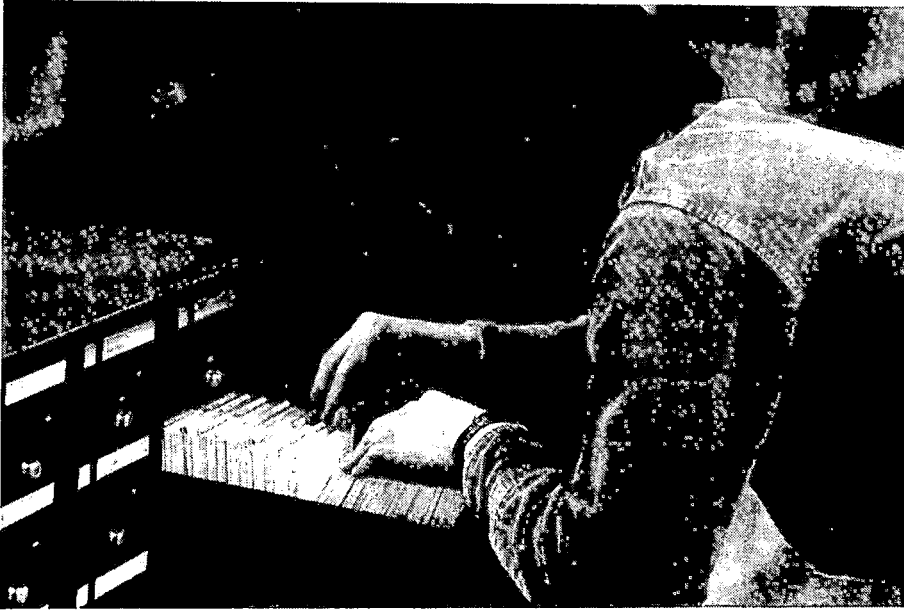
SOCIAL SECURITY: Under 1965 amendments to the federal Social Security law, children of retired, disabled or deceased workers covered under Social Security and the Railroad Retirement Act are eligible to receive financial support until age 22 while they are full-time students at T-VI. The nearest Social Security District Office can provide eligibility information. The Albuquerque office is at 1816 Carlisle NE, phone 766-2531.

DIVISION OF VOCATIONAL REHABILITATION (DVR): Persons with disabilities may be able to attend T-VI with training support from the New Mexico Division of Vocational Rehabilitation located in Albuquerque at 5600 Domingo Road NE, phone 842-3985.

OFFICE OF COMPREHENSIVE EMPLOYMENT AND TRAINING ADMINISTRATION (OCETA): Unemployed or underemployed disadvantaged persons who are accepted for training programs by OCETA may receive federal training allowances while attending T-VI.

Students are selected for OCETA programs by the federal Employment Security Commission and its New Mexico State Employment Service. The ESC Employment Office is at 401 Broadway NE, phone 842-3207 (OCETA phone 842-3218).

The following service centers provide employment and training assistance through OCETA for unemployed and underemployed economically-disadvantaged persons: *Heights Center*, 10801 Lomas NE, 842-3322; *North Valley Center*, 4918 Fourth NW, 842-3431; *South Broadway Center*, 1000 Broadway SE, 842-3461; *South Valley Center*, 3428 Isleta SW, 842-3421; *Montgomery Center*, 5555 Montgomery NE, 842-3112; *Central Center*, 1014 Central SW, 842-3011; and *Service Employment Redevelopment (SER)*, 1500 Walter SE, 247-0401.



Instructional Materials Center

The Instructional Materials Center (IMC) includes three service areas for use by students, staff and, in some cases, the entire community. They are the Library, Adult Learning Center and Audio-Visual Services. Located on T-VI's main campus, the center is open from 7:45 a.m. to 8:45 p.m. weekdays except Friday when it closes at 5 p.m.

LIBRARY SERVICES

We welcome you to drop by, read magazines, catch up on the latest news in local and national newspapers or study. You may also check out materials, prior to 5 p.m., for use at home.

Many kinds of books, pamphlets, maps, encyclopedias, and dictionaries are available offering information, recreation, new ideas, stories of the past, issues of the day and views to the future. Special collections of learning materials are maintained in all subject areas taught at T-VI.

Additional services include personal assistance in locating materials, instruction in how to use the library, study facilities, inter-library loan, a copy machine, magazine back issues, and many other types of assistance designed to provide the information you want when you need it.

AUDIO-VISUAL SERVICES

ALC services are offered free of charge for use by any adult in the community who wants to develop basic education skills. This center also contains materials for persons entering a variety of vocational fields.

Audio-visual materials are used extensively and specially-trained personnel are on duty at all times to help a person develop and pursue his or her personal program of study.

Basic education areas included are English as a Second Language, reading, spelling, English, mathematics, consumer education, beginning Spanish, human relations and preparation for the General Educational Development (GED) high school equivalency examinations.

The technical-vocational component includes audio-visual programs related to transistors, welding, computer systems, engine lathes, sales and human relations, and mathematics.

ADULT LEARNING CENTER

These services, used primarily by staff members, provide delivery, set-up, instruction and maintenance of a variety of audio-visual equipment. Arrangements may be made through this department for production of video tape television programs, slide presentations, audio tape recordings and for rental of films and other audio-visual materials.



**DEPARTMENT
OF
VOCATIONAL
PREPARATION**

Preparatory Program

The Preparatory Program helps students get ready for entry into a T-VI vocational program by offering basic courses in mathematics and communications. Students may also select other courses to help them choose or succeed in one of the vocational programs at T-VI.

Students who do not have a high school diploma can prepare to take the General Educational Development (GED) exams to earn a New Mexico high school diploma.

Through individual instruction and counseling, Preparatory students usually qualify to begin their vocational major in one trimester, or four months. However, the program may be continued into a second trimester if the student needs more help.

A student may enter this program anytime during the first 10 weeks of the trimester or until the classes are full. Requirements for the vocational programs are not met through this program; however, the student's attendance and participation in these classes are recorded on permanent T-VI records.

Students under the sponsorship of a specific agency, such as the Veterans Administration, must take the full schedule of 25 hours per week to qualify for full benefits. Other students may take as many class hours per week as wanted for their personal needs. The Preparatory Program is not approved for Veterans Administration benefits for dependent children attending under Chapter 35 of the GI Bill.

PREPARATORY PROGRAM

<i>Recommended Schedule</i>	<i>Hours/Week</i>
Communications	5
Mathematics	10
Exploratory Cluster	5
Enrichment Cluster	5

OR

General Educational Development (GED) 25

Electives

Personal Financial Management*	5
Operating Your Own Business*	5
Introduction to Typing	5
Human Relations	5
Reading Improvement	5
Thinking Skills Development*	5

*These classes are open to the entire student body.

COURSE DESCRIPTIONS

Communications

This refresher course in communications includes reading skills, writing, speaking, vocabulary, spelling and grammar related to the student's intended vocational program.

Mathematics

Upon entering the Preparatory Program, the student is placed in the mathematics course that best meets his or her needs, interests and abilities. Each student begins at the start of the program no matter when he or she enters and progresses at his or her own rate with the objective of meeting—or exceeding—entry-level mathematics skills for the vocational field selected. The program begins with basic arithmetic and includes whatever special or advanced topics are needed in that field. All instruction is on an individual basis.

Mathematics courses in the Preparatory Program include foundations (basic arithmetic) and mathematics for business occupations, health occupations, culinary arts, technologies, trades and GED.

Exploratory Cluster

All career fields available at T-VI are reviewed and exploratory experiences are provided for each student in the field of his or her choice. A student may change exploratory fields at any time he or she wants to investigate a different career possibility. This is to help students make more realistic decisions when choosing a vocational program at T-VI.

Enrichment Cluster

This is a series of units, each meeting five weeks for one hour daily, which can help the student understand and get along better with himself and others, especially in a work situation. The student may choose any three units from the enrichment cluster.

How to Study

Taking of notes and tests, outlining, study skills in reading, use of resource facilities, study time organization and self-evaluation are included in this unit.

Community Resources

In this unit students learn about various agencies in the city through class instruction, speakers, audio-visual materials and field trips.

Consumer Education

This unit can help the student become a wise buyer and money manager in today's complicated economy.

Personal Development

Emphasis in this unit is on the development of self-awareness in relation to one's environment, ethics, attitudes and the importance of "getting along" in a work situation.

First Aid and Personal Safety

Students may qualify for a three-year Red Cross certificate following this basic first aid course, which is useful to those encountering special safety requirements in a future job.

Preparatory Spanish

Conversational Spanish for non-Spanish-speaking students who will be working in a bilingual society is taught in this unit. Information about the Spanish culture and an appreciation of its customs and traditions are included.

Vocabulary and Spelling Development

This unit is for the student who needs to improve spelling abilities and expand written and oral vocabulary.

Electives

Introduction to Typing

This course is for students who want or need to learn the skill of typewriting. Students in Business Occupations who have been identified as having probable and/or unique difficulties in learning typewriting may also enroll. This course is not approved for Veterans Administration benefits.

Human Relations

Human behavior is explored to help the student develop a more positive attitude. Applications to work situations are stressed.

Operating Your Own Business

This course provides an introduction to the world of small business for those interested in owning their own businesses. Topics reviewed range from personnel and credit management to bookkeeping and income tax for the small business.

Personal Financial Management

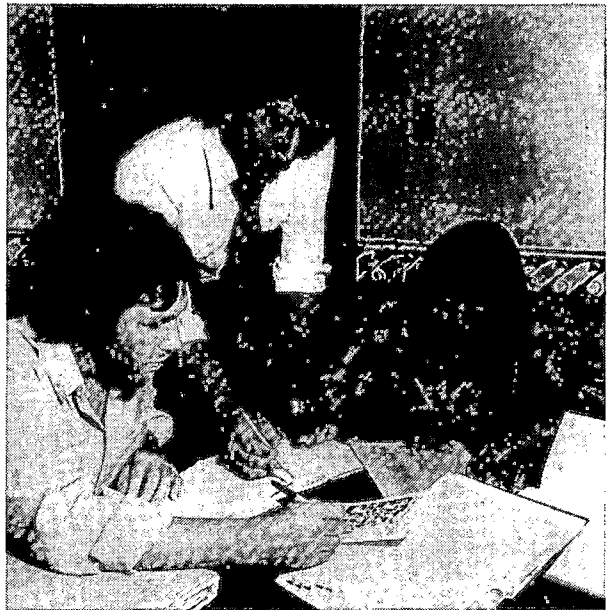
This course delves into the realm of domestic financial concerns such as food shopping, budgeting, credit, income tax, insurance and housing. Related topics of class interest are discussed as time permits.

Reading Improvement

The primary objective of this course is to help students understand what they read. Students with special reading problems are counseled to take this course.

Thinking Skills Development

This is a basic course in thinking skills development for those who want to improve their general thinking abilities. Several thought processes will be explored and applied to general problem solving situations, math word problems and group processes.



General Educational Development (GED)

By taking this course, students without a high school diploma can prepare for the GED test, also known as the high school equivalency test. Upon successful completion of the GED tests, the New Mexico State Department of Education issues a New Mexico high school diploma. The GED Preparatory Program meets five hours per day, 25 hours per week.

There are no registration, equipment or testing fees required in the GED Preparatory Program and the GED exams are given free on a scheduled basis to any interested person.

This course is not approved for Veterans Administration benefits.

Other options are also available for GED students who are not able to attend on this full-time day schedule. Part-time GED review classes are sponsored by T-VI's Evening Division or a student may prepare at his or her convenience with materials in the Adult Learning Center.

BUSINESS OCCUPATIONS



Accounting

4 Trimesters

The Accounting Program is an excellent field of study for persons who are looking for a career that is a challenge and has the potential for unlimited personal growth. It is one of the largest programs at T-VI and has an excellent record for placement of graduates.

This program begins with the basic principles of bookkeeping and progresses to more complicated accounting theory. The graduate is prepared for entry-level job opportunities ranging from payroll clerks to full-charge bookkeepers. The potential for advancement into jobs with increasing responsibility is good.

The four-trimester program offers up to 1,800 hours of instruction.

Students may select any of the electives listed which best prepare them for their employment goals. Not all courses will be offered each trimester. A minimum enrollment of 15 students is required for an elective to be offered.

Students acquire an employable skill after the successful completion of all courses listed under Trimesters I and II. If for any reason a student must interrupt his training after this point, he will be awarded a bookkeeping certificate upon request. An Accounting Diploma is awarded to those students who satisfactorily complete all of the courses listed under Trimesters I, II, III and IV plus 225 hours of electives. All students are given a proficiency certificate for each course.

Students attending under the Veterans Administration program may receive only partial benefits when the supervised work experience is in progress during the fourth trimester.

ACCOUNTING PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Accounting Principles Lab I	10
Accounting Math	5
Office Machines	5
Typing I	5
<i>Trimester II</i>	
Accounting Principles Lab II	10
Principles of Data Processing	5
Business Communications I	5
Typing II	5
<i>Trimester III</i>	
Intermediate Accounting Lab I	10
Tax Accounting	5
Business Communications II	5
<i>Trimester IV</i>	
Intermediate Accounting Lab II	5
Cost Accounting	5
Managerial Accounting	5
<i>Recommended Electives</i>	
Cashiering	5
Supervised Work Experience	10
Principles of Economics	5
Report Program Generator (RPG)	5
Principles of Management	5
COBOL I for Accounting	5
COBOL II for Accounting	5
Business Law	5
Records Management* (7½ weeks)	5
Advanced Accounting	5
Auditing	5
Accounting Systems Design	5
Governmental Accounting	5

*Does not count toward a full-time program.

COURSE DESCRIPTIONS

Accounting Principles Lab I

This is an introductory course on the theory and practice of accounting.

Accounting Math

This course covers basic arithmetic operations and familiarizes the student with a wide range of accounting procedures for which mathematics is required.

Office Machines

Skill is developed in the touch method of operating the most widely used office machines.

Typing I

Individual instruction permits a student to progress at his own pace. At the end of the course, a beginning student should be able to type a minimum of 25 words per-minute.

Accounting Principles Lab II

(*Prerequisite: Accounting Principles Lab I*) This is a continuation of Accounting I. Planning of, and accounting for, the partnership and corporate form of business organization is covered. A brief introduction to cost accounting is also included.

Upon successful completion of this course, the student should, with minimum supervision, be a competent bookkeeper for most small business organizations.

Principles of Data Processing

This course covers manual and automated information systems, historical development, definitions, planning and recording data in punched cards and other input media, unit record equipment and digital and analog computers.

Business Communications I

The student learns to communicate effectively through the study of writing fundamentals. Students will also have the opportunity to develop oral and listening skills.

Typing II

(*Prerequisite: Typing I*) Students type business letters, accounting reports and business forms. Emphasis is on the typing skills the student is most likely to use in an accounting job. Students should be able to type a minimum of 40 words per minute at the end of the course.

Intermediate Accounting Lab I

(*Prerequisite: Accounting Principles Lab II*) This lab emphasizes accounting theory, concepts and their practical application. It focuses attention on the use of accounting data as a basis for decisions by management, stockholders, creditors and other users of financial statements and accounting reports.

Tax Accounting

(*Prerequisite: Accounting Principles Lab II*) This course examines the fundamental characteristics of federal income taxes as applied to individuals, partnerships and corporations.

Business Communications II

(*Prerequisite: Business Communications I*) A student completing this course will write effective business letters, reports and memoranda. Continued use of oral communications and listening skills is stressed.

Intermediate Accounting Lab II

(*Prerequisite: Intermediate Accounting Lab I*) Accounting for capital stock transactions, dividends, retained earnings, income tax allocation, error correction, long-term investments, amortization schedules, statements from incomplete records, flow of funds statements and analysis and interpretation of financial statements are covered in this course.

Cost Accounting

(*Prerequisite: Accounting Principles Lab II*) This course emphasizes construction and manufacturing as compared to merchandising or service businesses. The student performs the accounting operations for estimating, bidding and application of the materials. Labor and overhead factors of production are studied, and reports are prepared.

Managerial Accounting

(Prerequisite: *Accounting Principles Lab II*) This course is basically concerned with how accounting data can be interpreted and used by management in planning and controlling business activities.

Cashiering

The student learns how to use various cash registers, including the ability to solve procedural problems that occur at a register and checkout station.

Supervised Work Experience

(Prerequisite: *Intermediate Accounting Lab I*) Students work a minimum of 150 hours at accounting-related supervised work stations. The student trainee is paid by the cooperating firm and is supervised jointly by T-VI and the cooperating employer.

Principles of Economics

The economic system is studied with emphasis placed on production and distribution, money and banking, governmental fiscal policy and economic conditions in New Mexico.



Report Program Generator (RPG)

(Prerequisite: *Principles of Data Processing*) This course will introduce the student to the procedures and techniques of processing basic accounting applications using the Report Program Generator (RPG) programming language. The computer used is an IBM 360-30.

Principles of Management

An introductory course helping the student develop an understanding of the basic management functions including planning, organizing, staffing, directing and controlling.

COBOL I for Accounting

(Prerequisite: *Principles of Data Processing*) The student will record transactions, produce reports, develop management data, keep inventories and accounts receivable and other accounting procedures using Common Business Oriented Language (COBOL) programming and an IBM 360-30 computer system.

COBOL II for Accounting

(Prerequisite: *COBOL I for Accounting*) The student will continue writing COBOL programs directly related to the processing of accounting data using the IBM 360-30 computer system.

Business Law

(Prerequisite: *Accounting Principles Lab I*) This course provides a basic knowledge of law as it applies to all business dealings in our society. Particular emphasis is placed on the Uniform Commercial Code. Practical problems in law are considered.

Records Management (7½ weeks)

Filing, operational and managerial duties of the office worker are studied in this course.

Advanced Accounting (Fall Trimester only)

(Prerequisite: *Accounting Principles Lab II*) The student learns partnership formation, dissolution and liquidation, consignment and installment sales, home office and branch office operations and business combinations.

Auditing (Winter Trimester only)

(Prerequisite: *Accounting Principles Lab II*) Auditing procedure, reports and working papers used in financial procedure, and reports and working papers used in financial investigations are studied and analyzed. Audit practices with verification of assets, liabilities, expense and revenue accounts are stressed. Internal control techniques are studied with the idea of developing the student's ability to conserve company assets.

Accounting Systems Design (Summer Trimester only)

(Prerequisite: *Accounting Principles Lab II*) This course deals with the design of a chart of accounts, an accounting manual, flow charts, the system of internal control and reports to management.

Governmental Accounting (Fall Trimester only)

(Prerequisite: *Accounting Principles Lab II*) This course provides the student with additional accounting training for government and other non-profit entities.

Distributive Education

1 Trimester

Persons who need to learn a skill quickly and find a job as soon as possible should consider this cashier-sales program. The 15-week program is designed with half days of classroom instruction and a minimum of 150 hours at an approved station for Supervised Work Experience.

The cashier-sales laboratory teaches the skills of salesmanship, cash register operation touch system and human relations.

It is a course for those preparing for distribution of goods and services to the public, including all retail, wholesale and service occupations. It also is a good place for students to begin who want to explore sales as a possible career.

Applicants are admitted to this program at any time during the trimester when there is a vacancy in the class, and students may leave the program upon completion of their training objective. Students are given proficiency certificates for the course, and special recognition is given those students completing the entire course.

This program is not approved for Veterans Administration training benefits.

DISTRIBUTIVE EDUCATION PROGRAM

<i>Course Requirements</i>	<i>Hours/Week</i>
Cashier-Sales Education	15
Supervised Work Experience	10-20

COURSE DESCRIPTIONS

Cashier-Sales Education Lab

Learning the techniques of operating the cash register is a skill subject and this instruction and drill normally take place every day. Merchandising math, store salesmanship and retailing are also covered.

Supervised Work Experience

Students work a minimum of 150 hours at retailing-related, teacher-approved work stations. The student trainee is paid by the cooperating employer and is supervised jointly by T-VI and the cooperating employer. There are times when it is impossible to place all students in work stations because of local employment requirements.

Fashion Merchandising

2 Trimesters

The Fashion Merchandising program is a good beginning for men and women interested in selling, buying, planning, promoting and coordinating fashion apparel, accessories and related items.

Merchandising organizations such as department stores, retail chains and specialty stores have expressed an interest in enthusiastic people with a specialized fashion background. Entry-level jobs range from retail salesworkers to assistant department managers. Some graduates have been promoted to fashion coordinators and store managers.

The two-trimester program offers up to 750 hours of instruction.

Students may leave the program upon completion of objectives, and special recognition is given to those students completing all of the courses in the program.



FASHION MERCHANDISING PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Fashion Lab I	10
Fashion Communications	5
Introduction to Business	5
Salesmanship	5

<i>Trimester II</i>	
Fashion Lab II	10
Principles of Retailing	5
Advertising and Display	5
Merchandising Math	5

COURSE DESCRIPTIONS

Fashion Lab I

This course introduces the student to the world of fashion merchandising, including basic fashion terminology and industry practices; the historical development of fashions; and the components of fashion, including elements of design, apparel construction, basic apparel, accessory styles, size ranges and basic textiles.

Fashion Communications

This course builds listening and speaking skills with emphasis in the fashion merchandising field. Writing, spelling and vocabulary building will be included.

Introduction to Business

This course surveys the structure of business, its activities and problems. It also provides a broad understanding of the nature of the business world.

Salesmanship

This course follows the steps of a sale from preparation to completion. Class participation and student demonstrations are stressed.

Fashion Lab II

(Prerequisite: Fashion Lab I) This course concentrates on the coordination and merchandising of fashion, including buying, styling and trend reporting. Projects, audio-visual presentations, guest speakers and field trips enrich this advanced fashion lab. The highlight of the program is a fashion show produced, coordinated and presented by the students.

Principles of Retailing

(Prerequisite: Principles of Salesmanship) This lab is designed to cover hiring procedures, cash register management and merchandise management.

Advertising and Display

This course explores four major areas of fashion promotion: advertising, display, publicity and special events. Students create displays in class, prepare copy and layout for various printed materials and plan a fashion event.

Merchandising Math

This course is a review of arithmetic fundamentals, equations, percent, commercial discounts, markup, markdown and turnover. Basic office machines will be used in the solving of problems.

Office Occupations

3 Trimesters

Career opportunities in office occupations are unlimited. More and more businesses are actively looking for office workers—both men and women—who have the potential to be promoted to administrative positions. The office worker has a choice of many fields in which to work: legal, medical, governmental, technical, service and educational.

Since office workers represent their employers and companies, it is important that persons in this field enjoy working with people. They should also be interested in routine office work.

The Office Occupations program provides students with skills through which they can gain employment in receptionist, clerical, clerk-typist and typist positions. In addition, the program provides elective courses beyond the required

courses which will qualify graduates for secretarial and stenographic entry positions.

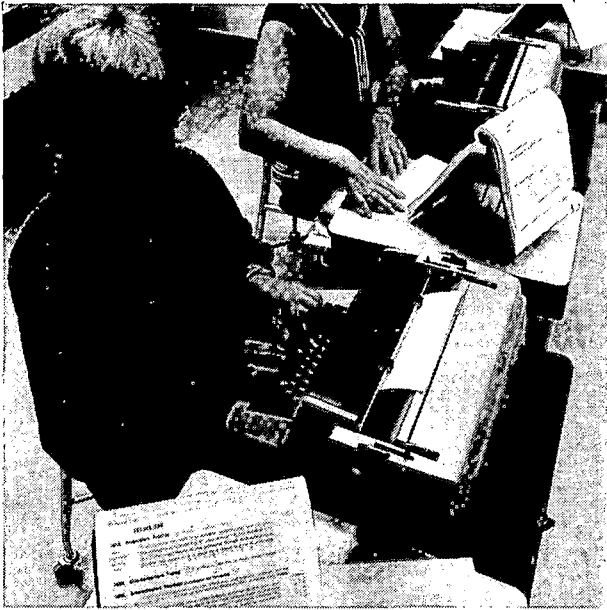
Students acquire a basic employable skill upon completion of the first trimester. If a student leaves for a training-related job after this point, a Clerical Certificate will be awarded.

Students successfully completing all of the required courses in the three-trimester program will receive a Diploma in Clerical Occupations. Those who also complete the requirements for Transcription (Shorthand III) will receive a Diploma in Secretarial Occupations.

Students also receive proficiency certificates for each course taken.

The program provides 1,125 hours of instruction. An additional 225 hours of elective offerings may be taken, if desired.

An entering student who has a strong background in clerical or secretarial skills may waive any course by examination and may substitute a more advanced course or add an elective.



OFFICE OCCUPATIONS PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Typing Lab I	10
Office Communications I	5
Business Mathematics	5
Business Procedures	5
 <i>Trimester II</i>	
Typing Lab II	10
Office Machines (7½ weeks)	5
Records Management (7½ weeks)	5
Office Communications II	5
Fundamentals of Data Processing	5
 <i>Trimester III</i>	
Typing Lab III	10
Office Communications III	5
Secretarial Accounting	5
Business Relations	5
 <i>Electives*</i>	
Shorthand I**	5
Shorthand II**	5
Transcription (Shorthand III)**	5
Cashiering	5
Principles of Economics	5
Principles of Management	5
Business Law	5
COBOL I	5
RPG	5

*Will be an additional course each day.

**Required for a Secretarial Diploma.

COURSE DESCRIPTIONS

Typing Lab I (Beginning)

This course builds the student's skills to a typing proficiency of at least 40 words per minute. The student practices typing of business letters, memos, business forms and manuscripts.

Office Communications I

This is an introduction to oral and written communications with emphasis placed on vocabulary building, spelling communication, grammar, punctuation, oral expression and listening skills.

Business Mathematics

This is a thorough review of basic mathematical fundamentals and their application in solving business problems.

Business Procedures

A study of routine office activities such as handling mail, scheduling, word processing, banking, making travel arrangements and reception duties is made.

Typing Lab II (Intermediate)

(Prerequisite: *Typing Lab I*) Typing competence of at least 50 words per minute is the goal of this course. Students produce mailable business letters, manuscripts, tables, business forms and other correspondence.

Office Machines (7½ weeks)

(Prerequisite: *Business Mathematics*) Skill is developed on the most widely used office machines including electronic calculators and duplicating machines.

Records Management (7½ weeks)

This course involves basic principles and management procedures of filing. The alphabetic, numeric, geographic and subject methods are taught.

Office Communications II

(Prerequisite: Office Communications I) This course is a continuation of Office Communications I with greater emphasis on punctuation and sentence and paragraph construction.

Fundamentals of Data Processing

Basic data processing terminology, preparation of source data (including key-punch) for processing and other aspects of automation are covered.

Typing Lab III (Advanced)

(Prerequisite: Typing II) This course provides continued development of typing skills. Legal, medical and technical typing is covered as well as the use of word processing equipment. The typing goal is a speed of 60 words per minute.

Office Communications III

(Prerequisite: Office Communications II) Principles of writing and composing of business correspondence are covered. Continued emphasis is placed on grammar, punctuation, spelling, and oral communication and listening skills.

Secretarial Accounting

(Prerequisite: Business Mathematics) This course is a study of the complete bookkeeping cycle, including preparation of the balance sheet, income statement and worksheet. Emphasis is placed on journalizing and posting to the general ledger and posting from the combined cash journal. Payroll accounting is also covered.

Business Relations

(Graduating Office Occupations students only.) This course includes self-improvement, human relations, telephone techniques, business etiquette and professionalism. Job preparation—including opportunities, resumes, interviews, follow-up and adjusting to the office—is covered.

Shorthand I (Gregg)

A dictation rate of 40 words per minute using the shorthand alphabet, theory and brief forms is the goal of this course.

Shorthand I (ABC)

Reading and writing of ABC Shorthand is taught with a writing speed of 50 words per minute the goal by the end of the course.

Shorthand II

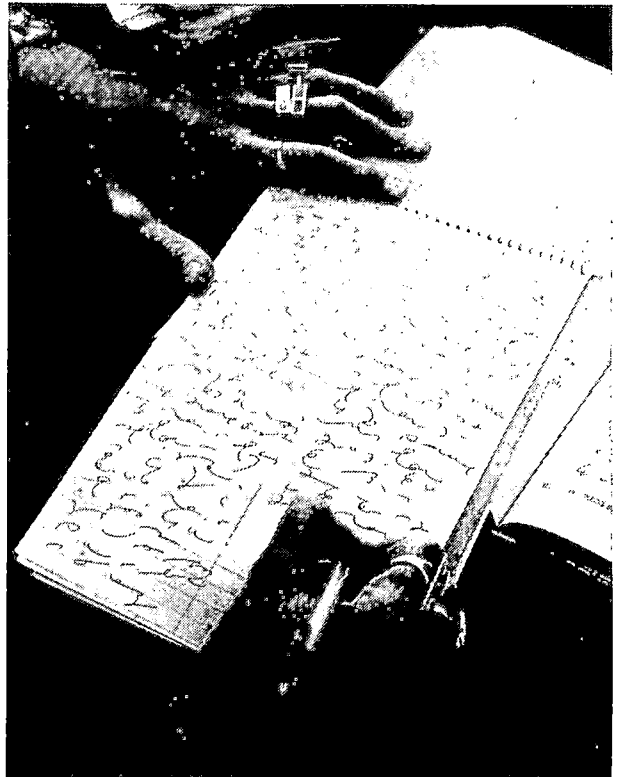
(Prerequisite: Shorthand I—ABC or Gregg) The ability to write shorthand at a rate of 70 words per minute is sought with emphasis placed on speed, accuracy, grammar and punctuation as well as transcription speed.

Transcription (Shorthand III)

(Prerequisite: Shorthand II) Goal for this course is a dictation speed of 80 words per minute on new materials and a transcription into mailable copy at a minimum rate of 20 words per minute.

Cashiering

Use of various cash registers, including the ability to solve procedural problems that occur at a register and checkout station, is developed in this course.



Principles of Economics

The economic system is studied with emphasis placed on production and distribution, money and banking, governmental fiscal policy and economic conditions in New Mexico.

Principles of Management

An introductory course helping the student develop an understanding of the basic management functions including planning, organizing, staffing, directing and controlling.

Business Law

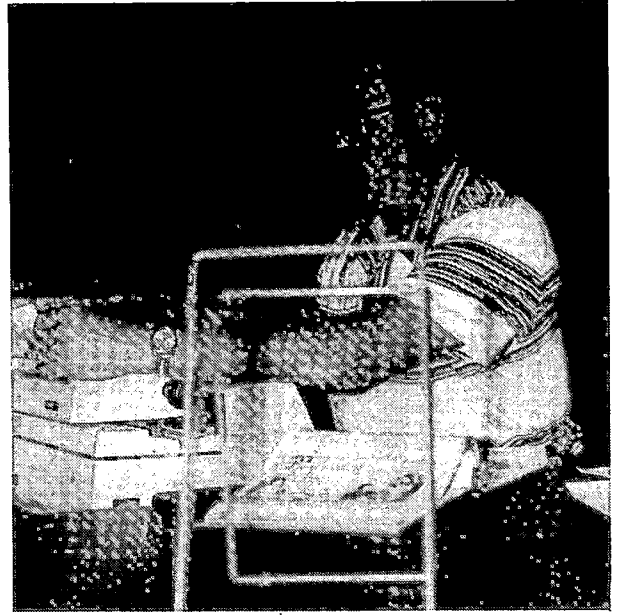
This course provides a basic knowledge of law as it applies to all business dealings in our society. Particular emphasis is placed on the Uniform Commercial Code. Practical problems in law are considered.

COBOL I

(Prerequisite: Fundamentals of Data Processing) The student will record transactions, produce reports, develop management data, keep inventories and accounts receivable and other accounting procedures using Common Business Oriented Language (COBOL) programming and an IBM 360-30 computer system.

RPG

(Prerequisite: Fundamentals of Data Processing) This course will introduce the student to the procedures and techniques of processing basic accounting applications using the Report Program Generator programming language. The computer used is an IBM 360-30.



Refresher Course for Office Workers

The Refresher Course is for persons who need a review of office skills and procedures in order to go back to work. Students entering this program must have a minimum of two years full-time secretarial or general office experience.

Students may enter this program as space is available and may leave upon completion of their training objective. Students are awarded a proficiency certificate showing their achievements, and special recognition is given those completing the program.

This is an individualized course of study in which a student progresses at his or her own rate with special emphasis on particular areas that need review and improvement. Students attend class four hours a day, five days a week, for a maximum of 15 weeks (300 class hours).

Review is given in typewriting, shorthand, machine transcription, office machines, English and mathematics.

This program is not approved for Veterans Administration benefits.

REFRESHER COURSE PROGRAM

	<i>Hours/Week</i>
Typing Review	} 20 .
Shorthand Review	
Office Machines	
Communications Review	
Business Mathematics Review	

COURSE DESCRIPTIONS

Typing Review

Practice is given on the latest model electric typewriters. Letter styles, memoranda, tabulations and manuscripts are reviewed as well as typewriter operation and care. Speed and accuracy are stressed.

Shorthand Review

Shorthand theory will be reviewed with emphasis on dictation and transcription.

Office Machines

Skill is built on ten-key adding machines and electronic and mechanical calculators that reinforce practical application of business mathematics. Practice is also given on transcription machines.

Communications Review

Review covers both written and oral communication. Emphasis is placed on punctuation, grammar, letter writing and telephone communication.

Business Mathematics Review

Emphasis is on review of basic mathematical computation that will easily be transferred to office machines.

Sales Management

2 Trimesters

The Sales Management Program is for those persons interested in the huge field of retailing and sales or for those who want to go in business for themselves. Graduates are prepared for employment as management trainees in small businesses, variety and discount stores, large department stores, specialty stores and professional selling.

The two-trimester program offers up to 750 hours of instruction in promotion of goods and services, buying, pricing, stock control and salesmanship. Additional background and understanding come from offerings in business mathematics, accounting, marketing and principles of management. Electives are available for the student desiring additional related hours of instruction.

Students receive proficiency rating sheets in all courses. Special recognition is given to those students completing all of the courses in the program.

SALES MANAGEMENT PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Principles of Salesmanship Lab .....	.5
Merchandising Math .....	.5
Introduction to Business .....	.5
Merchandising .....	.5
Store Operations .....	.5
 <i>Trimester II</i>	
Principles of Management .....	.5
Principles of Marketing Lab .....	.5
Advertising and Display .....	.5
Sales Management Communications .....	.5
Basic Accounting .....	.5
 <i>Recommended Electives</i>	
Cashiering .....	.5
Business Law .....	.5
Principles of Economics .....	.5
Principles of Data Processing .....	.5

COURSE DESCRIPTIONS

Principles of Salesmanship Lab

The principles, facts and techniques of selling are explored along with the development of communications and human relations skills.

Merchandising Math

This course is a review of arithmetic fundamentals, equations, percent, commercial discounts, markup, markdown and turnover. Basic office machines will be used in the solving of problems.

Introduction to Business

The structure of business, its activities and problems are surveyed in this course. It also provides a broad understanding of the nature of the business world.

Merchandising

The areas covered include ordering, receiving, pricing, marking, promoting and selling to the customer.

Store Operations

Store locations and store layout are emphasized along with such operational concerns as employee selection and training, customer services, security, inventory and financial control.

Principles of Management

An introductory course helping the student develop an understanding of the basic management functions including planning, organizing, staffing, directing and controlling.

Principles of Marketing Lab

This lab is designed to study the total marketing picture, from the production of goods to the potential customer, from a management point of view.

Advertising and Display

This course is about retail advertising and stresses the major media. Display themes, organization, techniques and their practical application are emphasized.

Sales Management Communications

This course builds listening and speaking skills. Writing, spelling and vocabulary building are included.

Basic Accounting

Instruction is provided in accounting fundamentals. Included are the accounting cycle, accounting statements and the principles of journalizing and posting.

Cashiering

The student learns how to use various cash registers, including the ability to solve procedural problems that occur at the register and check-out station.

Business Law

This course provides a basic knowledge of law as it applies to all business dealings in our society. Particular emphasis is placed on the Uniform Commercial Code. Practical problems in law are considered.

Principles of Economics

The economic system is studied with emphasis placed on production and distribution, money and banking, governmental fiscal policy and economic conditions in New Mexico.

Principles of Data Processing

This introductory course covers manual and automated information systems, historical development, definitions, planning and recording data in punched cards and other input media, and digital and analog computers.



Small Business Operation

1 Trimester

The Small Business Operation program is designed for persons who plan to open a small business and for persons owning or managing a small business who are interested in further training. The program places special emphasis on areas directly affecting the businessman in his day-to-day operation. Courses will be tailored to the specific needs of the enrollees.

All students completing the program will be issued a certificate.

The program is offered during the Summer Trimester only and is not approved for Veterans Administration training benefits.

SMALL BUSINESS OPERATION PROGRAM

<i>Course Requirements</i>	<i>Hours/Week</i>
Economics/Business Law/Salesmanship .....	.5
Retailing .....	.5
Accounting .....	.5
Management .....	.5

COURSE DESCRIPTIONS

Economics/Business Law/Salesmanship

The first segment will cover the current local and state economic picture. The business law segment will emphasize contracts, sales, commercial paper and insurance. The last five weeks will be devoted to sales techniques and salesmanship.

Retailing

The first five weeks is concerned with merchandising techniques. The second five weeks will cover advertising and its application to small businesses, and the final five weeks will deal with customer public relations.

Accounting

The first ten weeks will provide an insight into the theory and practice of accounting as it relates to the small business. The ability to read and interpret financial statements will be stressed. The last five weeks will be concerned primarily with how to acquire the necessary local, state and federal licenses; employer's tax numbers; and tax report procedures.

Management

The techniques involved in the development of individual business plans and the procedures necessary to implement these plans will be covered.

Management techniques for the small business owner or manager will be reviewed with emphasis on the hiring and training of employees and credit and collection procedures.



HEALTH OCCUPATIONS

T-VI's Health Occupations Department, located on the first two levels of the Presbyterian Professional building, 201 Cedar SE, includes four programs: Nursing Assistant, Practical Nursing, Respiratory Therapy Technician and Patient Service Clerk.

Persons may inquire about the programs and apply for admission at the T-VI admissions office on the main campus, 525 Buena Vista SE.

Applicants for the Nursing Assistant and the Patient Service Clerk programs follow the regular T-VI admission procedures noted at the beginning of this catalog. The Nursing Assistant Program is offered each trimester while the Patient Service Clerk Program is offered during the winter and summer trimesters only.

The other two programs, Practical Nursing and Respiratory Therapy Technician, admit beginning groups only once a year. Special application forms are used for both programs and must be accompanied by a \$5 application fee.

Applications for the Practical Nursing Program will be taken only between 8 a.m. and 12 noon on March 1, 2 and 3, 1978. Application must be made at the T-VI campus in person by the applicant or a representative.

Respiratory Therapy Technician applications will be accepted between May 1 and 26, 1978, and must be made in person by the applicant or a representative.

Classes in both programs will begin in September, 1978.

Because these two programs are very demand-

ing, and because the number of applicants far exceeds the number of student training positions available, an admissions process is used to establish a Practical Nursing Class of 90 students and a class of 22 Respiratory Therapy Technician students.

One-third of the students selected for the Practical Nursing class will be those scoring highest on the admissions test and having a health occupations background. A second portion of the class will be made up of alternates selected but not called for the previous year's class. The last portion of the class will be made up of persons randomly selected by computer from the remaining applicants who meet the requirements of qualifying scores, having an interview and submitting letters of recommendation.

For the Respiratory Therapy Technician class, the admissions process used is a combination of testing, examination of past academic records and work experiences, examination of letters of recommendation and interviews of those who meet minimum requirements on the admissions test scores.

Applicants for Practical Nursing, Respiratory Therapy Technician and Patient Service Clerk must have a high school diploma or equivalency to meet requirements of licensing agencies and the prevailing employment practices in local hospitals.

When a student is required to carry liability insurance in a clinical situation, it is the responsibility of the student to purchase such coverage.



Nursing Assistant

15 Weeks

This program provides the basic nursing skills required for the care and comfort of the sick in hospitals, nursing homes, public health agencies, private medical and dental offices and in the home setting.

Persons completing the program successfully will receive dual certification—as Nursing Assistants and as Home Health Assistants.

When working in a home setting, Nursing Assistants are supervised by a home health care registered nurse or appropriate registered/certified therapist. They help home-bound patients achieve and maintain a maximum level of independence by adapting nursing skills to private homes.

Good communication skills are necessary in the program as well as cleaning and cooking abilities. Applicants are encouraged to have a valid New Mexico driver's license because students must provide their own transportation to the various health care agencies and patients' homes. Public transportation is usually inadequate for this purpose.

A \$25 fee covers the cost of the required uniform and laboratory tests. A watch with a second hand and uniform shoes are required but not provided.

The 15-week program totals 328 hours of instruction with nine weeks of classroom and laboratory work followed by six weeks of extensive supervised clinical training in local hospitals and home health agencies.

The program is not approved for Veteran's Administration training benefits.

NURSING ASSISTANT PROGRAM

<i>Course Requirements</i>	<i>Total Hours</i>
Nursing Assistant—Home Health Assistant	
Lab and Theory	90
Nutrition Lab and Theory	21
Health Communications	12
Anatomy and Physiology	18
Math	45
Hospital Clinical Experiences	88
Home Health Clinical Experiences	54
Total	328

COURSE DESCRIPTIONS

Anatomy and Physiology

This course provides a basic concept of the structure and normal function of the body systems and their interdependency. It also covers some of the abnormalities that affect these systems.

Health Communications

Medical terminology, abbreviations, communication skills, selected readings and special assignments relevant to the nursing field are combined in this course.

Math

Basic math is reviewed in this course with practice in working selected problems related to the students' activities.

Nursing Assistant—Home Health Theory and Lab

During the first nine weeks, students attend lectures on basic nursing skills used in health care agencies and learn adaptation of skills for the home environment. Practice of these skills is provided in the laboratory.

Nutrition Theory and Lab

Concepts of basic nutrition and adaptation of regular and modified diets for use in the hospital and home settings are discussed. Home management, community resources, purchasing food and preparing foods are also included. Lab experiences are directly related to the theory.

Home Health Clinical Experiences

Home Health experiences are a two-week portion of the last six weeks of the program and include field observations and experiences in selected home settings.

Hospital Clinical Experiences

Hospital experiences are a four week portion of the last six weeks of the program and will include specialized training and application of acquired skills in hospitals throughout the city.

Patient Service Clerk

10 Weeks

The program for Patient Service Clerk, sometimes called ward clerk or service secretary, trains persons to serve as the hub of communications in a hospital unit, primarily transcribing physicians' written and verbal orders, answering the telephone and giving information to patients, visitors and staff.

Applicants must have a high school diploma or equivalency. They must be able to write clearly and accurately as well as have an ability to speak distinctly to others. Knowledge of and ability to speak Spanish as well as English is helpful. Physical stamina is essential because the job requires moving about quickly and easily in an area of intense activity.

There is a \$25 fee which covers the required uniform and laboratory tests. The 300-hour program is ten weeks long with six weeks of classroom theory and four weeks of clinical practice in local hospitals. A certificate is awarded upon successful completion.

The Patient Service Clerk Program will be offered only in the winter and summer trimesters.

This program is not approved for Veterans Administration benefits.

PATIENT SERVICE CLERK PROGRAM

<i>Course Requirements</i>	<i>Total Hours</i>
Patient Service Clerk Theory and Lab	204
Patient Service Clerk Clinical Practice	96
	<u>Total 300</u>

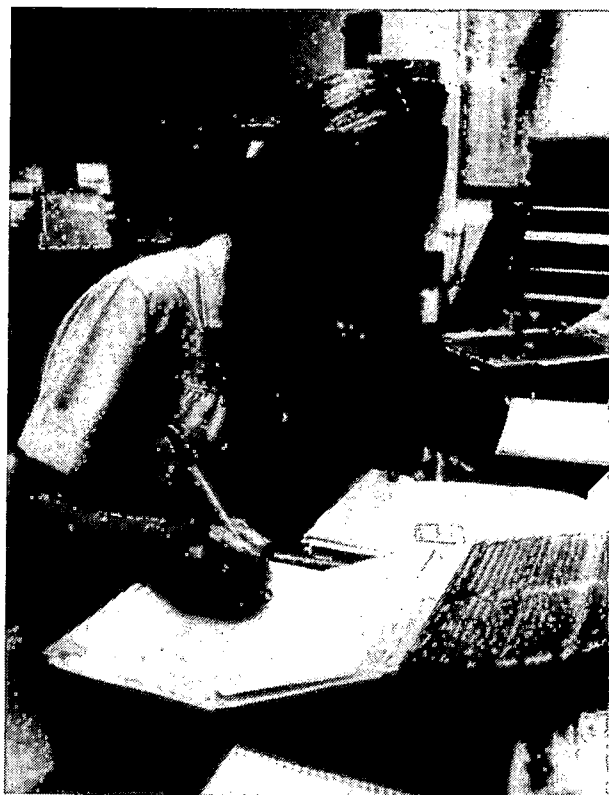
COURSE DESCRIPTIONS

Patient Service Clerk Theory and Lab

This course combines a number of individual topics, including orientation to the hospital, the patient, and the role of the patient service clerk, as well as presentations and practice of medical terminology, abbreviations, communications, pharmacology terminology, forms and transcription of orders.

Clinical Practice

Supervised clinical experience takes place in local hospitals during the last four weeks of the program.



Application

FAMILY INFORMATION

THIS SQUARE IS TO BE COMPLETED ONLY BY APPLICANTS LIVING WITH THEIR PARENTS

Parent's Name

Parent's Address Telephone Number

Employed By Name Address

Name of Spouse Last First Middle

Employed By Name Address

Number of Children Ages of Children

HEALTH INFORMATION

This information is required to help avoid placing you in classes where health conditions would cause problems for you, and to have health information about you on file in case of emergency.

Person to be contacted in case of emergency Home Telephone

Family Doctor Telephone Work Telephone

Hospital preferred Fully Corrected Some Loss Substantial Loss

Normal Corrected Loss Loss

VISION (Color Blind? No Yes)

HEARING

WALKING

OTHER (explain)

CHRONIC MEDICAL CONDITIONS: (Check those which apply to you)

- Heart Disease
- Epilepsy
- Diabetes
- Kidney Disease
- Severe Allergy
- Spinal Injury
- Tuberculosis
- Emotional Problems
- High Blood Pressure
- Hepatitis
- Migraine Headaches
- Joint Disease/Injury

DAY DIVISION APPLICATION FORM

ALBUQUERQUE TECHNICAL-VOCATIONAL INSTITUTE

525 Buena Vista, S.E.

Albuquerque, New Mexico 87106

BIOGRAPHICAL INFORMATION

Name
Last First (Not Nickname) Middle
Social Security No. Sex: M..... F

PERMANENT Address Street & Number City State Zip Code
How long have you lived in New Mexico? Years Months

Date of Birth Age Telephone

Place of Birth City State

EDUCATIONAL INFORMATION

Circle Highest Grade Completed High School Attended

1 2 3 4 5 6 7 8 9 10 11 12

College 1 2 3 4 City State

High School Graduate? Yes No Date of Graduation or Withdrawal Month Year

G.E.D. INFORMATION

Have you taken the General Educational Development Test (GED)? Yes No
If yes, when? where?

Did you pass the GED test? Yes No

Do you have a High School Equivalency Certificate? Yes No
OTHER VOCATIONAL SCHOOLS OR COLLEGES ATTENDED (INCLUDING MILITARY SCHOOLS)

Name Length of Attendance Course of Study

JOB HISTORY (last two jobs only)

Employer City Dates of Employment Type of Work

PROGRAM INFORMATION (see Day Division Bulletin)

List below the Vocational Program(s) for which you are now applying:

(1) (2)

Have you ever applied for or attended DAYTIME classes at T-VI before? Yes No

I plan to begin attending classes in (circle one): January May September Other

SPONSORING AGENCY (circle one or more)
None V.A. Office of C.E.T.A. Social Security D.V.R. B.I.A.

OTHER FINANCIAL AID (circle as applicable)
N.M. Student Loan Basic Educational Opportunity Grant College Work-Study Other

RECORDS RELEASE AUTHORIZATION

TO:
Name of High School Address

FROM:
Last Name First Name Middle Maiden

Address

City State Zip Code

Date of Birth Date of Graduation

Social Security # or Date of Withdrawal

I authorize you to forward my complete high school transcript of grades and credits to:
Albuquerque Technical - Vocational Institute, Admissions Office, 525 Buena Vista SE, Albuquerque, New Mexico 87106

Please bill me at my home address if there are any charges concerning this matter:

.....
Date Signature of Student

..... Other:

Are you taking any medications ? (Please list)

Can you lift 50 pounds?

STATEMENT OF APPLICANT

I certify that the information furnished on this application is correct to the best of my knowledge.

I agree that, if I am admitted to the Technical-Vocational Institute, I will become familiar with and will observe the school's policies and regulations.

I hereby authorize the Institute to release academic and attendance records related to my attendance at T-VI to bona fide employers, other educational institutions and public agencies.

Date of Application Applicant's Signature

Practical Nursing

3 Trimesters

This program prepares students to care for patients in a variety of health care facilities under the supervision of registered nurses and physicians. Employment possibilities for practical nurses continue to be extensive. Men and women who want to work in a field in which they can provide help to others should find practical nursing a satisfying choice.

The T-VI/Presbyterian Hospital School of Practical Nursing is sponsored jointly by T-VI and Presbyterian Hospital Center and is accredited by the National League for Nursing and the New Mexico State Board of Nursing (NMSBN).

After the completion of the three-trimester program, students are eligible to take the state practical nursing license examination given by the NMSBN.

Practical Nursing applicants must have either a high school diploma or equivalency and score well on achievement tests to be considered for the program. Applications for the September 1978 class will be accepted between 8 a.m. and 12 noon on March 1, 2 and 3, 1978, and must be made in person by the applicant or a representative at that time.

The program totals 1,350 hours of instruction with students usually attending classes six hours a day, Monday through Friday. However, clinical experiences generally have to be scheduled at different hours so the hours of classes and clinical experiences may vary from day to day and there may be an occasional Saturday class.

Students must be able to attend classes, observations and clinical experiences as scheduled and plan for their own transportation to the agencies and hospitals. The first trimester, or 15-week block, consists of pre-clinical training in nursing skills with related theory courses. The second and third trimesters are spent in classroom and clinical experiences related to medical-surgical nursing for children and adults and maternal-infant nursing.

Practical Nursing requires a once-only \$65 fee which supplies required uniforms, cap, scissors and identification tag. It does not cover the cost of an entrance physical examination, a watch with second hand, uniform shoes, stethoscope, liability insurance, graduation uniform, graduation pin or state board exam fees.

PRACTICAL NURSING PROGRAM

<i>Trimester I—15 Weeks</i>	<i>Total Hours</i>
Anatomy and Physiology I	60
Nursing Foundations Core	163
Nursing Skills Lab and Clinical Experience	185
Dosages and Solutions	32
Total	450

<i>Trimester II—18 Weeks</i>	<i>Total Hours</i>
Medical-Surgical Nursing for Children and Adults	
Clinical Experience	360
Theory	180
Total	540

<i>Trimester III—12 Weeks</i>	<i>Total Hours</i>
Maternal-Infant Nursing	
Clinical Experience	80
Theory	40
Advanced Nursing	
Clinical Experience	160
Theory	80
Total	360

COURSE DESCRIPTIONS

Anatomy and Physiology I

This course gives the student a basic concept of the general plan, structure and the normal function of the body systems and their interdependency.

Nursing Foundations Core

People's needs in sickness and health are presented through an integrated curriculum approach. Nursing principles and skills, personal and community health, nutrition, human growth and development, vocational concepts and first aid are correlated with the needs of self and others.

Nursing Skills Lab and Clinical Experience

Practice situations in the laboratory and experiences in hospital clinical units accompany the theory learned in the Nursing Foundations Core.

Dosages and Solutions

This course is designed to teach the student the mathematics involved in preparing fractional dosages of drugs and in preparing solutions. Methods of converting from one system to another are included. Safety in calculating and preparing dosages is stressed.

Medical-Surgical Nursing for Children and Adults

People's needs during illness are expanded in the theory presentations of the course. Clinical experience implements the theory presentations. The course is designed to help students learn to care competently for patients, both children and adults, with medical and surgical disorders.

Maternal-Infant Nursing

Normal processes of the reproductive cycle including prenatal, labor, delivery and postpartum care are introduced in this course. Care of the newborn and a study of the more common anomalies seen in the newborn are covered. Clinical experiences accompany the classes.

Advanced Nursing

This course focuses on patients experiencing complex medical-surgical problems. Students, with the help of the instructors, select learning experiences which will meet their own learning needs.

Respiratory Therapy Technician

3 Trimesters

The Respiratory Therapy Technician Program teaches the special skills required for treatment, management, control and care of patients with deficiencies and abnormalities associated with breathing. The program is one year long and includes classroom instruction and specialized clinical training in local hospitals. It is accredited by the American Medical Association Council on Education.

Applicants must have either a high school diploma or equivalency and must make a qualifying score on achievement tests to be considered. Since respiratory therapy involves handling and maintenance of treatment equipment, the applicants must be able to lift materials weighing up to 50 pounds.

The program has a beginning group in the fall trimester only. Applications for the September, 1978, class will be accepted beginning May 1, 1978.

Respiratory Therapy Technician students pay a \$65 fee when they begin the program. It covers the costs of required uniforms, special personal respiratory equipment, an identification tag and miscellaneous costs such as student registration at special workshops. It does not cover the cost of the school's graduation pin, pre-entrance physical examination or student liability insurance.

The program totals 1,350 hours of instruction with students attending classes Monday through Friday, usually six hours a day.

However, clinical experiences generally have to be scheduled at different hours so the hours of classes and clinical experiences may vary from day to day. The first trimester, or 15-week block, consists of pre-clinical training and basic respiratory therapy skills. The second and third 15 weeks are spent in classroom and hospital clinical experiences which progress from simple to complex situations.

Students must provide their own transportation to the clinical facilities.

RESPIRATORY THERAPY PROGRAM

<i>Trimester I</i>	<i>Total Hours</i>
Fundamentals of Respiratory Therapy	105
Respiratory Therapy Lab I	165
Chemical and Physical Principles of Respiratory Therapy	90
Anatomy and Physiology I	60
Introduction to Patient Care	30
Total	450

<i>Trimester II</i>	
Anatomy and Physiology II	60
Microbiology and Demonstration Lab	60
Clinical Experiences I	240
Psychosocial Aspects of Patient Care	30
Respiratory Therapy Lab II	60
Total	450

<i>Trimester III</i>	
Cardio-Pulmonary Problems	40
Pharmacology	40
Administrative Procedures	10
Clinical Experiences II	312
Respiratory Therapy Lab III	48
Total	450

COURSE DESCRIPTIONS

Fundamentals of Respiratory Therapy

This basic course surveys respiratory therapy as a paramedical profession—the personal qualifications, expectations and opportunities—and also presents pertinent procedures.

Respiratory Therapy Lab I

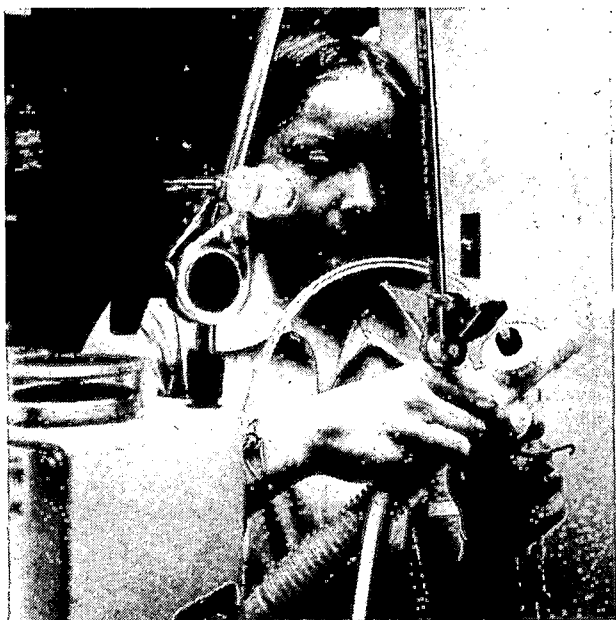
The laboratory experiences stress safe practices in the use and maintenance of regulators and gas supply systems, devices and respiratory therapy machines.

Chemical and Physical Principles of Respiratory Therapy

Physics and Chemistry pertinent to respiratory therapy are included in this general survey course.

Anatomy and Physiology I

This course gives the student a basic concept of the general plan, structure and normal function of the body systems and the dependency of one on another.



Introduction to Patient Care

The patient is introduced as an individual and as the central figure in a complex environment. Routine nursing care, isolation and special nursing problems are discussed with regard to respiratory therapy.

Anatomy and Physiology II

This course emphasizes more advanced knowledge of the anatomy and physiology of the circulatory, pulmonary and nervous systems and their relationship to each other.

Microbiology and Demonstration Lab

Study in this course includes some of the micro-organisms related to sickness and health, particularly those affecting patients with respiratory problems. The microbes discussed in class are studied during the lab and cleaning of respiratory therapy equipment is practiced.

Clinical Experience I

Supervised clinical experiences, held in city hospitals, include the administering of various respiratory therapies and caring for equipment.

Psychosocial Aspects of Patient Care

The basic psychodynamics of human behavior are presented. Emphasis is placed on human behavior during illness, especially chronic pulmonary disease. Understanding self as well as others is also included.

Respiratory Therapy Lab II

This laboratory stresses resuscitation techniques; resuscitators, both mechanical and manual; ultrasonic therapy; and preventive maintenance.

Cardio-Pulmonary Problems

General pathological processes are studied as applied to different pathological conditions, both surgical and medical. Each condition will be explained from the standpoint of etiology, symptoms, diagnosis, therapy and prognosis.

Pharmacology

The general principles of pharmacology and respiratory therapy pharmacology are given in this course.

Administrative Procedures

Principles and practices involved in the supervision and administration of a respiratory therapy department, supplies and finances are studied.

Clinical Experiences II

Experiences in the third trimester will provide practice in giving more complex respiratory therapy treatments to patients and in identifying physical, social and emotional patient needs.

Respiratory Therapy Lab III

This lab offers application of basic techniques to more complex patient care situations such as emergency and intensive care.

TECHNOLOGIES

ASSOCIATE IN APPLIED SCIENCE DEGREE

Students who complete the full sequence of courses for a diploma in Data Processing, Drafting Technology or Electronics may transfer their credits at no cost to the University of Albuquerque if they become candidates for the Associate in Applied Science degree. The degree will be awarded upon the completion of approximately 23 semester hours of general education requirements as specified by the University of Albuquerque.

Additional information may be obtained from the admissions offices of the University of Albuquerque or the Albuquerque Technical-Vocational Institute.

Data Processing

4 Trimesters

Persons who would enjoy the challenging and interesting activity of solving information and management problems using computer hardware and techniques should consider a career in the field of automated data processing. This program serves as a springboard to enter and succeed in such a career. Graduates are qualified for jobs as business application programmers.

The first and second trimesters give the student a sound background in fundamental computer skills used on a wide variety of computer and computer-related equipment. The third and fourth trimesters continue to build computer application skills with a great deal of emphasis upon problem solving techniques and the man-machine interface. Mini computer and mainframe environments are used in teaching five widely used programming languages.

A Data Processing Trainee certificate is awarded after completing the first and second trimesters. To earn a diploma and qualify to enter a programmer analyst career, a student must complete the full 16-month program of 1,770 hours.

DATA PROCESSING PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
COBOL I	10
Introduction to Computers	5
Accounting for Data Processing	5
Algebra/Management Math	10
 <i>Trimester II</i>	
COBOL II	10
RPG II	5
JCL, Files, Utilities and Sorts	10
DP Communications	5
 <i>Trimester III</i>	
Assembler	10
Advanced RPG II	5
Systems Analysis I	5
Management Methods I	5
Managerial Accounting	5
 <i>Trimester IV</i>	
Computer System Software	10
Advanced Programming Techniques	5
Systems Analysis II	5
Management Methods II	5
Conversational Computers	3



COURSE DESCRIPTIONS

COBOL I (Common Business Oriented Language)

Projects directly related to programming business and accounting applications are coded, debugged and executed in structured COBOL programming.

Introduction to Computers

Instruction is provided in computer arithmetic, memory coding schemes, memory dumps, computer logic and control, flow charting of computer problems and some system flowcharting.

Accounting for Data Processing

This introductory course is designed to familiarize data processing students with accounting theory, practice and terms and their relation to computer data processing. Activities and projects are coordinated with COBOL I.

Algebra and Management Math

Algebra fundamentals are covered in this course along with selected business and management mathematical applications.

COBOL II

(Prerequisite: COBOL I or equivalent) This course continues development of programming skills in the COBOL language with emphasis on more complicated statements, clauses and concepts.

RPG II (Report Program Generator II)

This course introduces the student to the RPG II programming language used in a business organization.

JCL (Job Control Language), Files, Utilities and Sorts

(Prerequisite: COBOL II) The various operating systems, utilities, control languages, as well as standard mass storage devices and data file organization are studied in this course.

Data Processing Communications

Students learn to read, write, and speak effectively the basic technical language of automated data processing.

Assembler

(Prerequisite: Introduction to Computers) This machine oriented language is essential to the professional programmer. The student acquires an understanding of programming techniques necessary to write and refine efficient programs.

Advanced RPG II

The remaining features of the RPG II language are included with emphasis on more sophisticated business applications.

Systems Analysis I

(Corequisite: Management Methods I) This is a study of business organizations, staff and line responsibilities. EDP (Electronic Data Processing) group organization, data security, source data controls, processing controls, editing, auditing the system and output review are included. Design, data collection coding and implementation of an actual system provide laboratory experience.

Management Methods I

(Prerequisite: Algebra and Management Math, COBOL II; Corequisite: Systems Analysis I.) The application of graphic techniques and descriptive statistics to a variety of computerized business and management applications are included in this course.

Managerial Accounting

(Prerequisite: Accounting for Data Processing) This course emphasizes cost accounting, encumbrance accounting and special governmental accounting practices. A description of the accounting responsibilities and understanding of the paper and information flow within a typical computer based business are included.

Computer System Software

(Prerequisite: Assembler) The techniques and uses of systems and service programs are studied. Procedures for implementing and effectively using the computer libraries are emphasized.

Advanced Programming Techniques

(Prerequisite: COBOL II) This course prepares the student to use the more sophisticated aspects of the various programming languages and systems.

Systems Analysis II

(Prerequisite: Systems Analysis I; Corequisite: Management Methods II) All necessary data collection, refinement and editing procedures for selected projects are designed and implemented. Procedure manuals and run books are prepared to document all input, output forms, programs and procedures.

Management Methods II

(Prerequisite: Management Methods I; Corequisite: Systems Analysis II) This is a continuation of the application of statistics and mathematical techniques in a business environment.

Conversational Computers

(Prerequisite: Introduction to Computers or equivalent) This course includes the philosophy and techniques of time shared systems, the BASIC (Beginners' All-purpose Symbolic Instruction Code) language, man-machine interactive systems, help routines, search and retrieval techniques and telecommunication systems.

Drafting Technology

4 Trimesters

Drafting Technology is a dual-track program which allows students to select one of two related fields which lead to different kinds of jobs.

The *Construction Drafting Option* provides students with job-entry skills as architectural draftsmen, structural draftsmen, mechanical draftsmen, mechanical equipment draftsmen, and estimators and schedulers. Related technical courses are included.

The *Civil and Map Drafting Option* provides students with job-entry skills as cartographers, photogrameters, civil draftsmen and surveyors and also includes related technical courses.

The Construction Drafting Option offers 1,725 hours of instruction, including 600 hours of laboratory instruction and 1,125 hours of theory and supporting courses. The Civil and Map Drafting Option offers 1,680 hours with 810 hours of laboratory and 870 hours of theory and supporting courses. A diploma will be issued after completing all of the courses in either option.

All Drafting Technology students pay an equipment fee of \$25. Students who enter the Civil and Map Drafting Option must pay an additional \$25 before entering the second trimester.



DRAFTING TECHNOLOGY PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Construction Drafting Lab/Theory I	15
Drafting Math I-II	10
Building Materials and Methods	5

CONSTRUCTION DRAFTING OPTION

<i>Trimester II</i>	<i>Hours/Week</i>
Construction Drafting Lab/Theory II	15
Building Materials and Methods II	5
Drafting Math III	5
BASIC Language Programming I	5

<i>Trimester III</i>	
Structural Drafting Lab/Theory	15
BASIC Language Programming II	5
Communications	5
Physics	5

<i>Trimester IV</i>	
Mechanical Equipment Lab/Theory	15
Estimating and Scheduling	10

CIVIL AND MAP DRAFTING OPTION

<i>Trimester II</i>	<i>Hours/Week</i>
Cartography Lab/Theory	15
Drafting Math III	5
BASIC Language Programming I	5
Beginning Plane Surveying	6

<i>Trimester III</i>	
Photogrammetry Lab/Theory	9
BASIC Language Programming II	5
Surveying and Mapping Techniques	5
Intermediate Plane Surveying	6

<i>Trimester IV</i>	
Civil Drafting Lab/Theory	15
Communications	5
Advanced Surveying	6

COURSE DESCRIPTIONS

Construction Drafting Lab/Theory I

This course introduces general drafting theory and techniques needed to produce construction drawings for residential and light commercial structures. The student also learns to use manufacturers' materials and standard references in developing drawings.

Drafting Math I-II

This course applies basic and advanced algebra and geometry concepts to the drafting field.

Building Materials and Methods I

Properties of building materials are related to actual methods of light construction and building design. Blueprint reading, zoning, building codes, specification writing, material estimates and financing are included in this course.

Construction Drafting Lab/Theory II

(Prerequisite: Basic Construction Drafting Lab/Theory I) A continuation of Basic Construction Drafting with major emphasis on heavy construction, students in this course spend time developing large commercial projects from design through construction document production.

Building Materials and Methods II

(Prerequisite: Building Materials and Methods I) With major emphasis on heavy construction, students study various aspects of commercial building applications including zoning, building codes and specifications.

Drafting Math III

(Prerequisite: Drafting Math I-II) This applied approach to trigonometry is related to surveying and mechanical problems and supports the applications programmed in the BASIC Language Programming I course.

BASIC Language Programming I

(Prerequisite: Technical Math I-II) This introduction to BASIC (Beginners' All-purpose Symbolic Instruction Code) Programming includes use of input and output statements, arithmetic operations, comparison and branching commands, use of sub-routines and the library functions. Algorithms are developed associated with surveying and engineering computations.

Structural Drafting Lab/Theory

(Prerequisite: Construction Drafting Lab/Theory II) This course covers techniques used to produce framing plans and other structural drawings for buildings. Practice is provided in detailing for steel structures and steel reinforcement in concrete structures.

BASIC Language Programming II

(Prerequisite: BASIC Language Programming I) This extension of BASIC I includes units on magnetic tape and disk files, formatted output, character string manipulation, plotting routines and the development of interactive programs emphasizing data editing and error detection routines.

Communications

Speaking, writing and listening skills as reviewed through simulated industrial situations.

Physics

(Prerequisite: Drafting Math III) This course covers the basic principles of heat, light, sound, electricity, strength of materials and common testing procedures. Beam theory, which introduces the student to structural design in wood, steel and concrete, is a major part of this course.

Mechanical Equipment Lab/Theory

Calculations and design of mechanical and electrical systems for residential and commercial buildings and the materials and equipment used in those systems are covered. The lab section provides practice in graphically defining common heating, air-conditioning, plumbing, waste disposal and electrical systems.

Estimating and Scheduling

Construction project planning and management are presented in this course. Construction estimating, planning and control, and the application of the computer in the construction field are provided.

Cartography Lab/Theory

(Prerequisite: Basic Construction Lab/Theory) This mapping course includes an introduction to mapping followed by practice in inking lines and lettering (Leroy) on vellum and drafting film. Tracings are made of topographic, geological, cadastral and plan and profile maps. Units on photo interpretation, records searching and format development precede techniques and practice in negative scribing, preparation and reproduction of mechanical separations.

Beginning Plane Surveying

(Prerequisite: Drafting Math III) The student is introduced to the basic techniques and equipment used in surveying including tape, level, theodolite and the engineering transit. Field work and related computations are done in leveling, distance and angle measurement related to mapping.

Photogrammetry Lab/Theory

(Prerequisite: Cartography) This course includes theory and practice in aerial photography, geometry of single vertical photographs and overlapping aerial photos, flight planning, ground control and photograph rectification. Students have introductory experience in the use of modern stereoscopic plotting instruments and map compilation leading to the preparation of maps from aerial photos.

Surveying and Mapping Techniques

An overview of modern surveying methods is presented relating surveys of the U.S. Public Lands, land grants, and small holding and mining claims to contemporary surveys. Extensive practice in the use of the National Geodetic Survey (NGS) Horizontal and Vertical Networks and the use of the New Mexico State Plane Coordinate System is provided.

Intermediate Plane Surveying

(Prerequisite: Beginning Plane Surveying) Instruction includes practice in the use of one-second theodolites, EDM equipment and data reduction by computer preceding topographic, stadia and control surveys and the field checking of a topographic map. A concentrated unit on mine surveying and measurement methods is included and a retracement survey is conducted.

Civil Drafting Lab/Theory

(Prerequisite: Photogrammetry) Students practice up-to-date development and calculation techniques to analyze route surveys and produce highway and utility plan and profile drawings. A unit on subdivision design including drainage plans and sanitary sewers is included. This course is offered in conjunction with Advanced Surveying.

Advanced Surveying

(Prerequisite: Intermediate Plane Surveying) Included are horizontal and vertical curve calculations and design, earthwork measurements, subdivision staking using two instruments, offset staking, slope staking, and construction surveys and inspection.

Electromechanical Drafting

3 Trimesters

Electromechanical Drafting is a more complex field of drafting for persons with a strong interest in electronics and mechanical design. Graduates develop a background in conceptual and applied experiences which will allow growth and development in typical industrial situations, and are prepared for jobs as electromechanical draftsmen.

This program is unique in that it presents drafting fundamentals in electrical and electronics applications and also includes specialized mechanical drafting and design concepts.

The year-long program includes 450 hours of laboratory instruction and 795 hours of drafting theory and supporting courses. A new class will be accepted at the beginning of summer trimester only.

Students who successfully complete the program, combining the two fields of electronics and mechanical design, are awarded a diploma in Electromechanical Drafting.

A personal equipment fee of \$25 is required when entering the program.

ELECTROMECHANICAL DRAFTING

<i>Trimester I</i>	<i>Hours/Week</i>
Electronics Drafting Lab	10
Logic Circuit Fundamentals	5
Basic Electricity and Electronics	5
Algebra	10
 <i>Trimester II</i>	
Electromechanical Assemblies Lab/Theory	15
Trigonometry	5
Technical Writing	5
Manufacturing Processes	3
 <i>Trimester III</i>	
Mechanical Definition Lab/Theory	15
Introduction to Mechanical and Tool Design	10

COURSE DESCRIPTIONS

Electronics Drafting Lab

This lab incorporates the fundamental concepts of the electrical/electronics field. Students learn to use correct symbology, designations and layout techniques in accordance with military and ASA standards to describe formal schematics, logic diagrams, wiring layouts, cabling diagrams, single-sided and double-sided printed circuit boards.

Logic Circuit Fundamentals

Basic principles of symbolic logic, design function and design of elementary logic circuitry, primarily of a switching function, are taught. This course is closely linked to the Basic Electricity and Electronics course.

Basic Electricity and Electronics

This course supplements the Electronics Drafting Lab by providing basic concepts of electricity and electronics relevant to electromechanical drafting. Circuitry characteristics, functions of components, typical circuitry applications, and the composition of discrete and integrated circuitry are studied.

Algebra

This course applies basic and advanced algebra and geometry concepts to the drafting field.

Electromechanical Assemblies Lab/Theory

(Prerequisites: Basic Drafting Lab, Logic Circuit Fundamentals and Basic Electricity and Electronics)
This course expands on the students' experiences in electronic-oriented drafting. Students also prepare multi-view representations of components and mechanisms related to the electromechanical industry.

Trigonometry

(Prerequisite: Algebra) An applied approach to trigonometry is based on mechanical computational needs.

Technical Writing

Students practice verbal and written communications that they will use in industrial situations. Included are public speaking, oral presentations, practice job interviews, writing from notes, technical research projects and use of technical data in a technical report format.

Manufacturing Processes

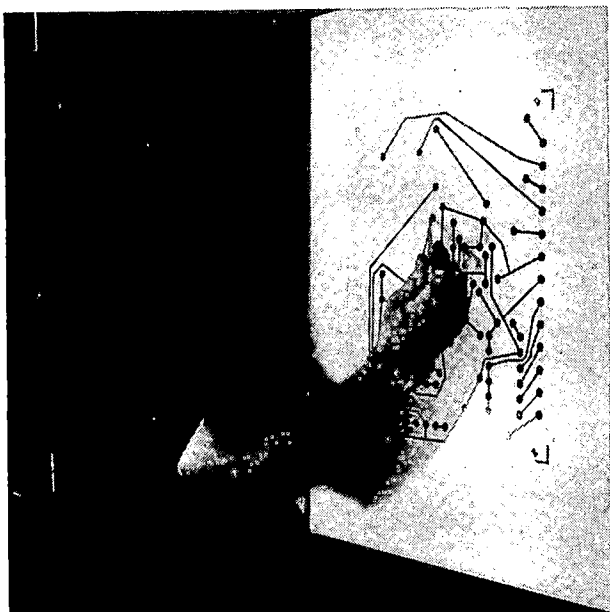
This course teaches students to relate varied production processes to characteristics of a given part. Emphasis is on providing compatibility between the design function and production function through graphic data.

Mechanical Definition Lab/Theory

Concepts and functional applications of definition techniques in accordance with mechanical drafting standards are presented. The student learns to prepare drawings requiring standard systems of views and dimensionally define them with respect to design and production capabilities. Students practice incorporating technical data relative to manufacturing processes, materials or hardware definition. True position dimensioning is an integral part of the course.

Introduction to Mechanical and Tool Design

This course coordinates the basic elements of physics with mechanical design applications. Students identify design considerations of varied materials and mechanisms and provide fundamental data to support the graphic definition. Practice is included in designing various tooling components for different job functions including component inspections. Computer-aided design graphics will be introduced and their industrial applications reviewed.



Electronics

4 Trimesters

Electronics technicians must be capable of working and communicating with engineers and production personnel and of growing into positions of increasing responsibility. Persons interested in becoming electronics technicians should also have some skills in elementary algebra.

The Electronics program prepares graduates for employment as technicians in the electronics industry. A firm foundation in electricity, basic electronics and the principles of computer circuits is planned for the first two trimesters.

Trimesters three and four build directly on this background while introducing such specific areas of study as communications, consumer electronics and computer systems, including programming. There is a strong emphasis on laboratory work throughout the curriculum.

Some courses are offered as options to be taken in addition to the required courses. Students are encouraged to take these to broaden their education at T-VI.

To qualify for a Diploma in Electronics Technology, the student must successfully complete all four trimesters of the required courses which consist of 825 hours of laboratory and 975 hours of theory. A Certificate in Electronics Testing may be awarded after completion of all of the courses required in the first three trimesters.

ELECTRONICS PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Electronics I	15
Electronics Math I	10
Digital Circuits I	5
<i>Trimester II</i>	
Electronics II	15
Digital Circuits II	5
Electronics Math II	10
Physics*	5
<i>Trimester III</i>	
Electronics III	15
Circuit Analysis	5
Semiconductor Principles and Applications	5
Digital Circuits III	5
Calculus for Electronics*	5
<i>Trimester IV</i>	
Electronics IV	15
Electronics Instruments	5
Industrial Applications	10
Digital Circuits IV*	5

*Optional

COURSE DESCRIPTIONS

Electronics I

In this course, students learn the basic concepts of direct current electricity, including Ohm's Law, Kirchhoff's Law, and Thevenin's and Norton's theorems. The laboratory provides an opportunity to make observations concerning the topics covered in theory. Basic skills with meters and tools are important parts of the lab.

Electronics Math I

Students study the concepts of number systems, beginning and advanced algebra and Boolean Algebra, the algebra upon which computer circuits are based. The objective is for each student to become skilled in algebraic manipulation and to understand the base 10, base 2 and other number systems relevant to the study of electronics.

Digital Circuits I

This course covers the logic units used in digital circuits which may be applied to an understanding of the computer and their routine use in the operations of a computer system.

Electronics II

(Prerequisite: Electronics I and Electronics Math I)

The study of basic circuit laws is extended to alternating current in order that students understand the effects of various circuit elements. Inductance, capacitance, vacuum tubes and semiconductors are introduced. The lab provides the opportunity to verify theoretical concepts by making observations with resonant circuits, filters, power supplies and amplifier circuits.

Digital Circuits II

(Prerequisite: Digital Circuits I) In this course, students become skillful with the actual devices used in computer circuits and learn how these devices are used together to produce a working system. Design of memory, counting and adding circuits is also a major part of this course.

Electronics Math II

(Prerequisite: Electronics Math I) This course includes the study of basic trigonometry, periodic functions, elementary vector analysis and complex numbers. Students acquire a mathematical basis for understanding observations made in the study of AC circuits. During the last half of the course, circuit problems will be solved using computer languages.

Physics

(Prerequisite: Electronics Math I) Basic principles of mechanics, heat, light, sound, electricity, atomic and nuclear physics are covered. Emphasis will be placed on modern trends in physics which apply to electronics.

Electronics III

(Prerequisite: Electronics II) Principles of operation of AM, FM and SSB communications equipment will be presented and circuits typically found therein will be studied and analyzed. Fundamentals of transmission line theory pertaining to high frequency signal transmission will also be covered. The objective is to have students relate basic concepts, learned in Electronics I and II, to useful circuitry.

Circuit Analysis

(Prerequisite: Electronics Math II) In this course, students increase their skills in the use of algebra, trigonometry and geometry in the solution of advanced electronic problems. The work involves analysis of specific applications such as television circuits. Laboratory exercises are used to verify the theoretical analysis.

Semiconductor Principles and Applications

(Prerequisite: Electronics II) This is a thorough course in transistor theory and application, including design techniques using the common emitter, common base and common collector configurations. In addition, other devices such as the FET, MOS, unijunction, light emitters and detectors are introduced.

Digital Circuits III

(Prerequisite: Digital Circuits II) Students learn the organization of a computer system including the CPU, bus structures, memory, instruction sets, programming, and applications of micro- and minicomputers.

Calculus for Electronics

(Prerequisite: Electronics Math II) Topics covered are the basic concepts of limits, derivatives, integrals, areas, volumes and centroids. These concepts will be applied to electronics problems and computer programs will be used where relevant.

Electronics IV

(Prerequisite: Electronics III) This course will cover advanced semiconductor theory and application. Students design circuits using transistors, FET's, SCR's, linear IC's and other devices. Applications related to digital circuitry will also be discussed. Students are provided the opportunity to study for the FCC First Class Radio Telephone Licensing Examination during part of the course.

Electronics Instruments

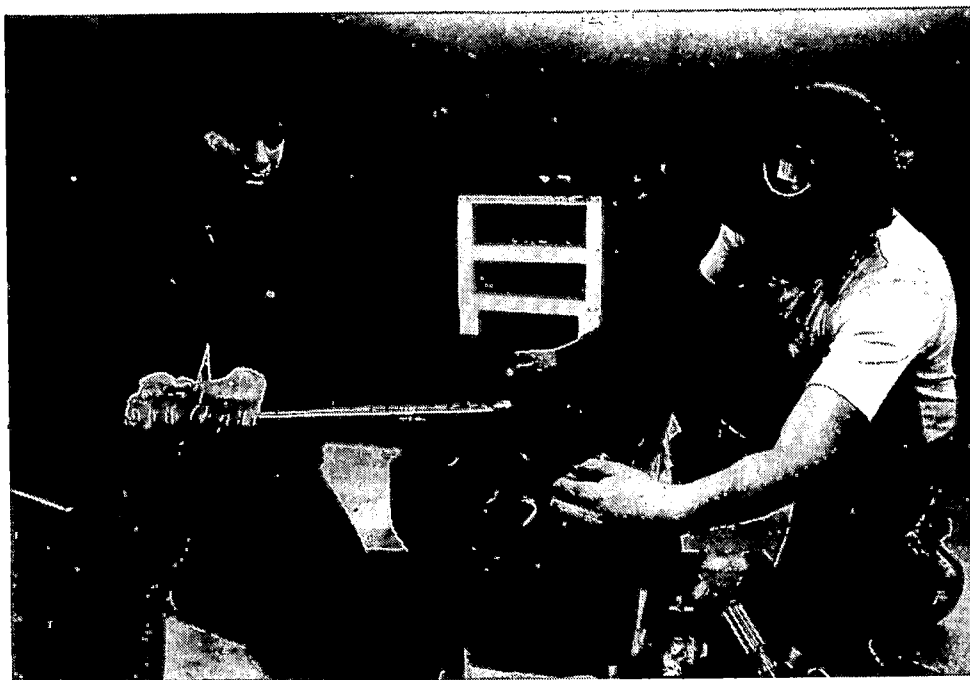
(Prerequisite: Electronics III) The objective of this course is to help the student understand the procedures of instrument calibration, maintenance and repair in accordance with manufacturers' specifications.

Industrial Applications

(Corequisite: Electronics IV) Students learn the maintenance of various electronics equipment which will be encountered when entering a job. Emphasis is on locating problems and using proper methods for replacing defective components. The course includes theoretical work to complement the laboratory assignments.

Digital Circuits IV

(Prerequisite: Digital Circuits III or permission of instructor) This is an advanced course in digital systems. Emphasis will be on the architecture and programming of minicomputers. Students who complete the course will have knowledge basic to understanding minicomputers.



TRADE and INDUSTRIAL

Most classes in the trade and industrial field, the largest skill cluster at T-VI, meet in a new trades building at Coal and University SE which contains classrooms, lab space and a live work area. Programs not housed there meet on the main campus.

New students may enter most of the trades programs at the beginning of each trimester. A few—including Culinary Arts, Masonry and Sheet Metal—accept new students at the midpoint as well as the beginning of the trimester. Admissions information concerning all trades programs is available at the T-VI reception desk in the lobby on the main campus.

Entrance requirements shared by all of the trades programs are that the applicant be able to lift materials weighing 50 pounds and be free of allergies or health conditions which cannot be controlled and which would endanger his or her own safety or the safety of others. These include allergies to such things as fuels, solvents, detergents, lime or cement products, sheet metal fluxes or sawdust, depending on the major. Normal color vision and depth perception correctable in both eyes are required in several majors.

Each applicant must have an interview with the program coordinator during the admissions

process and must make a satisfactory score on the pre-admissions mathematics and reading examinations.

Students in the trades are expected to furnish their own appropriate shop clothes for their program.

SUPERVISED WORK EXPERIENCE

Supervised work experience is for students who have acquired most of the skills and work attitudes needed to succeed in an entry-level job in an occupation. In two trimester programs, students apply for this option during the final half-trimester; in longer programs, during the final trimester.

This on-the-job experience may be substituted for the laboratory portion of a program and follows a training plan developed by the cooperating employer and the T-VI instructional staff. Before beginning a supervised work experience, the student must obtain the approval of the instructor, program coordinator, counselor, department chairman and the Director of Student Services.

Air-Conditioning, Heating and Refrigeration

3 Trimesters

The Air-Conditioning, Heating and Refrigeration (AC, H&R) Program prepares students for successful entry into the installation, maintenance and service field in this specialty.

With further training offered by employers at the dealer, distributor and mechanical contractor level, the graduate of this program should be able to assist the journeyman mechanic in installing the equipment necessary to complete residential and light commercial projects.

This includes the installation of mechanical equipment and electrical controls; servicing various air-conditioning, heating and refrigeration components; troubleshooting the systems and performing preventive maintenance that is required.

The year-long program totals 1,350 hours of instruction, of which 600 hours are laboratory work and 750 hours are supporting courses.

A student may leave the program upon completion of a training objective and receive a rating sheet detailing the skills mastered in the program. Special recognition is given to those students completing all of the courses in the program.

AC, H&R students must pay an equipment fee of \$135, \$65 before entering the first trimester and \$35 before each additional trimester.



ENTRANCE REQUIREMENTS

1. Must make an acceptable score on a mathematics and reading test.
2. Must be able to lift materials and equipment weighing up to 50 pounds.
3. Must have an interview with the program coordinator and admissions counselor.

AIR-CONDITIONING, HEATING AND REFRIGERATION PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
AC, H&R Lab I	15
AC, H&R Theory I	5
AC, H&R Math I	5
Basic Welding	5

<i>Trimester II</i>	<i>Hours/Week</i>
AC, H&R Lab II	15
AC, H&R Theory II	5
AC, H&R Math II	5
Control Circuitry I	5

<i>Trimester III</i>	<i>Hours/Week</i>
AC, H&R Lab III	10
AC, H&R Theory III	5
Business Relationships	5
Blueprint Reading I	5
Control Circuitry II	5

COURSE DESCRIPTIONS

AC, H&R Lab/Theory I

Beginning students learn shop safety; basic tools and equipment; introduction to physics and chemistry; electrical circuits and laws of electricity; motor control devices and electric meters; test and measuring equipment; and installation, maintenance and service knowledge for domestic refrigerators and freezers and residential-type heating and cooling systems.

AC, H&R Math I

This course reviews the basic arithmetic and algebraic operations needed to solve specific problems in temperature conversion, dimensions, area, standard volumes, force, work and energy, power, therm, British thermal unit, specific and latent heat, and various mathematical laws as applied to the major.

Basic Welding

This laboratory practice class is designed to give instruction in safety practices, general tools and equipment, sources of heat, operational procedures, metals and their properties, and applications of oxyacetylene welding to air-conditioning, heating and refrigeration repairs.

AC, H&R Lab/Theory II

(Prerequisite: All Trimester I Courses) Instruction is provided in the installation, maintenance and service of light commercial air-conditioning, heating and refrigeration systems. Emphasized are heat pumps, electrical problems and controls, gas-electric packages, compressors, condensers, pressure reducing devices, load calculations, heat transfer, temperature-humidity charts and safety code for mechanical refrigeration.

AC, H&R Math II

(Prerequisite: AC, H&R Math I) Rules and formulas, ratio and proportion, volume, pulley speeds, load calculations, geometric construction and velocity as applied to the air-conditioning, heating and refrigeration program are studied in this course.

Control Circuitry I

This course is designed to reinforce the background knowledge required in diagnosis and service of environmental equipment with emphasis on the function and understanding of electrical control circuitry. Included are transformers, motors, relays, contactors, starters and circuit protection.

AC, H&R Lab/Theory III

The installation, maintenance and service of commercial air-conditioning, heating and various refrigeration systems, including transport refrigeration, are covered.

Business Relationships

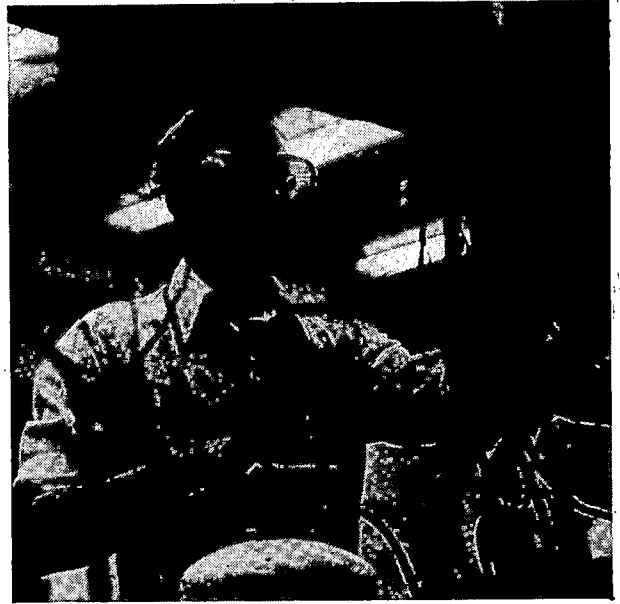
An introductory course that explores the application of business terminology, organization, law, finance, record keeping and operations; distribution; physical facilities; invoice and billing procedures; managing merchandise; and customer and personnel relations as they relate to the air-conditioning, heating and refrigeration industry.

Blueprint Reading I

(Prerequisite: All Trimester I Courses) Instruction covers terminology; free-hand sketching of orthographic and isometric drawings; construction details; abbreviations and symbols; electrical constants and unit prefixes; schematics and color code for piping; building trade symbols; types of building construction and insulation; duct systems; ventilation plans; interpretation of mechanical and electrical plans; codes; and design concepts.

Control Circuitry II

(Prerequisite: All Trimester II Courses or Equivalent) This course includes the study of the design, installation and troubleshooting of air-conditioning, heating and refrigeration control systems. Instructional emphasis will be placed on electrical, pneumatic and solid state circuitry.



Automotive Collision Repair

2 Trimesters

The Automotive Collision Repair Program prepares students for entry-level employment as a metal man or painter in the automotive industry. The student should be able to qualify in the area of his choice and ability.

In the first trimester, students are given instruction and practical experience in minor body work and basic automotive painting procedures. Students are encouraged to specialize as they progress in their training. The quality of work and the flat rate manual are used to determine the student's rating.

The second trimester includes two advanced metal man and painting areas. The metal man does more complex removal and replacement (R&R) of panels and front-end sections, and medium frame and body damage repair. Quality and flat rate skills are used for rating students. The painting area rating is based on quality and the amount of supervision required.

The eight-month program totals 900 hours of instruction, of which 600 are laboratory work and 300 hours are supporting courses.

A student may leave the program upon completion of a training objective and receive a rating sheet detailing the skills mastered in the program. Special recognition is given to those students completing all of the courses in the program.

Automotive Collision Repair students must pay a \$100 equipment fee, \$65 before entering the first trimester and an additional \$35 before the second trimester, and must provide their own industrial safety glasses or goggles.

Students will be accepted for beginning classes in the Fall Trimester, 1977, and the Summer Trimester, 1978.

ENTRANCE REQUIREMENTS

1. Must make an acceptable score on a mathematics and reading test.
2. Must be free of chronic respiratory diseases.
3. Must be able to lift materials and equipment weighing up to 50 pounds.
4. Must have an interview with the program coordinator and admissions counselor.

AUTOMOTIVE COLLISION REPAIR PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Auto Collision Repair Lab I	20
Auto Collision Repair Theory I	5
Auto Collision Welding	5

<i>Trimester II</i>	
Auto Collision Repair Lab II	20
Auto Collision Repair Theory II	5
Auto Collision Repair Math	5

COURSE DESCRIPTIONS

Automotive Collision Repair Lab/Theory I

This laboratory practice course teaches shop safety, chassis construction, hand and power tool operation, minor fender and body section repairing, basic body pulls, trim and hardware replacement, preparing for painting and basic painting processes.

Theory includes fundamental information on body and chassis nomenclature, metal alloy characteristics, uses of grinders and abrasives, metalworking techniques, metal finishing with lead and reinforced plastic, and basic painting procedures.

Automotive Collision Welding

Students get practical experience in use of the oxy-acetylene torch for welding, cutting and brazing on various types and sizes of sheet metal. This course develops welding skills in basic shielded arc welding for frame repair, and basic inert gases and gas-arc welding for body repairing.

Automotive Collision Repair Lab/Theory II

(Prerequisite: All Trimester I Courses) The laboratory practice in this course covers body section replacement and alignment, interior trim removal and replacement (R&R), spray painting procedures and processes, surface buffing and polishing, frame and body pulls, and basic unitized body alignment.

During the theory section, students are instructed in frame and unitized body alignment, body straightening on panels and sections, clip replacement, accessory removal and replacement, finishing procedures and processes, and advanced estimating. Instruction is also provided in the basic principles of electricity; schematic reading; series, parallel and series-parallel circuits; alternating and direct current; and basic automotive electrical systems encountered in automotive collision repair areas.

Auto Collision Math

This course reviews basic arithmetic operations including surface measurements and direct measurements, ratio and proportion, and percentage. Rules and formulas, volume, basic crash book estimating, work orders, flat rate costs and the metric system are thoroughly covered.



Automotive Mechanics

1 to 3 Trimesters

The Automotive Mechanics Program helps the student gain the technical knowledge and occupational skills necessary to enter the automotive service field.

The three options are nonsequential—a student may take them in any order if space in the class is available during the trimester chosen and specific entrance requirements and prerequisites have been met.

In one trimester-long option, instruction is in the fundamentals of engine operation and construction; engine testing and diagnosis; and engine disassembly, inspection, cleaning, reconditioning, reassembly and check-out.

In another option, emphasis is placed on the basics of electricity, tests and operations of batteries and cranking motors; and charging, ignition, fuel, emission control and air-conditioning systems.

During a third option, brakes, front suspensions, steering, alignment, transmissions and drive train mechanisms are emphasized.

The three-trimester program totals 1,350 hours of instruction, of which 900 hours are laboratory work and 450 hours are supporting courses.

A student may leave the program upon completion of a training objective and receive a rating sheet detailing the skills mastered in the program. Special recognition is given to those students completing the entire program.

Automotive Mechanics students must pay a \$135 equipment fee, \$65 prior to entering the first trimester and \$35 before each additional trimester.

ENTRANCE REQUIREMENTS

1. Must make an acceptable score on a mathematics and reading test.
2. Must be free of chronic respiratory diseases and allergies to automotive fuels and solvents.
3. Must be able to lift materials and equipment weighing up to 50 pounds.
4. Must have an interview with the program coordinator and admission counselor.

AUTOMOTIVE MECHANICS PROGRAM

<i>Option I</i>	<i>Hours/Week</i>
Automotive Engines and Engine Systems	
Lab .....	.20
Automotive Engines and Engine Systems	
Theory	5
Supporting Courses	2 to 5

<i>Option II</i>	
Automotive Electrical and Tune-Up Lab .....	.20
Automotive Electrical and Tune-Up Theory	5
Supporting Courses	2 to 5

<i>Option III</i>	
Brakes, Front-End Alignment and	
Drive Trains Lab .....	.20
Brakes, Front-End Alignment and	
Drive Trains Theory	5
Supporting Courses	2 to 5

SUPPORTING COURSES

	<i>Hours/Week</i>
Basic Automotive Math .....	.3*
Precision Measurements .....	.2*
Automotive Tool Practice .....	.3
Automotive Emission Control Systems .....	.2
Automotive Air-Conditioning .....	.3
Automotive Diagnostic Procedures .....	.2

*Recommended for beginning Automotive Mechanics students.

COURSE DESCRIPTIONS

Automotive Engines and Engine Systems Lab/Theory

(Prerequisite: Specific Entrance Requirements and/or Satisfactory Completion of Previous Option) This course offers instruction in automotive shop safety, basic tools and equipment used by automotive mechanics, engine systems operation and maintenance; engine operation and construction; engine testing and diagnosis; and engine disassembly, inspection, cleaning, reconditioning, reassembly and check-out. The course will also teach the student to read and interpret technical data. Proper shop procedures and job operations are emphasized.

Automotive Electrical and Tune-Up Lab/Theory

(Prerequisite: Specific Entrance Requirements and/or Satisfactory Completion of Previous Option) This course introduces the student to the automotive electrical and tune-up field. Instruction covers basic electricity; schematics; batteries; cranking motors; and charging, ignition, fuel and emission control systems. Automotive air-conditioning will be studied as a separate service unit of instruction.

Brakes, Front-End Alignment and Drive Trains Lab/Theory

(Prerequisite: Specific Entrance Requirements and/or Satisfactory Completion of Previous Option) This course introduces the student to the automotive specialties in brakes, front suspensions, steering, alignment, transmissions and drive train mechanisms. Basic troubleshooting techniques are studied in the operation and function of the various systems. The course also provides practice in technical research. Special emphasis will be placed on power flow circuits, basic diagnosis as correlated with lab projects, safety and basic servicing.

Basic Automotive Math (3 Hours/Week)

This trade related course reviews basic mathematics,

English and metric measurement systems, basic geometric construction and calculations, machinists' scales, basic right-angle measurements and calculations, and the various thread systems used in the industry.

Precision Measurements (2 Hours/Week)

Precision measuring tools used in the automotive industry will be emphasized. Practical training applications on the English and metric micrometer caliper, vernier caliper, depth micrometer, telescoping gages and dial indicators will be the main part of the course.

Automotive Tool Practice (3 Hours/Week)

Shop safety, basic benchwork, hand tools, machine construction, and basic operations on the drill press and pedestal grinder are taught in this combination theory-demonstration and training.

Automotive Emission Control Systems (2 Hours/Week)

This practical theory-demonstration and training course offers instruction in the effects of automotive emission on the atmosphere. Emphasis is placed on the various types of emission systems and equipment used on the modern automobile.

Automotive Air-Conditioning (3 Hours/Week)

This industrially based theory-demonstration and training course offers the advanced automotive mechanics student an understanding of the safety, diagnosis, repair and service of the current models of automotive air-conditioning.

Automotive Diagnostic Procedures (2 Hours/Week)

To emphasize the latest methods and techniques of diagnosis used in the highly technical automotive service industry, this advanced troubleshooting course provides practical on-the-job procedures in the use of test equipment. Future professional mechanics will also be introduced to the national mechanics certification programs.



Carpentry

2 Trimesters

The Carpentry Program provides students with practical and realistic job entry-level skills for the construction industry.

During the first trimester, the fundamentals of residential framing and tools of the trade are taught. In the second trimester, emphasis is placed on interior finish, finish carpentry, basic construction and installation of cabinets, millwork and estimating.

The eight-month program consists of 900 hours of instruction, of which 450 hours are laboratory experiences and 450 are supporting courses.

A student may leave the program upon completion of a training objective and receive a rating sheet detailing the skills mastered in the program. Special recognition is given to those students completing all of the courses in the program.

Carpentry students must pay a \$100 equipment fee, \$65 before entering the first trimester and an additional \$35 before the second trimester, and must provide their own carpenter's overalls or nail apron.

ENTRANCE REQUIREMENTS

1. Must make an acceptable score on a mathematics and reading test.
2. Must be free of chronic wood or wood product allergies.
3. Must be able to lift materials and equipment weighing up to 50 pounds.
4. Must have interview with the program coordinator and admissions counselor.

CARPENTRY PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Carpentry Lab I	15
Carpentry Theory I	5
Carpentry Math I	5
Blueprint Reading I	5
<i>Trimester II</i>	
Carpentry Lab II	15
Carpentry Theory II	5
Carpentry Math II	5
Blueprint Reading II	5

COURSE DESCRIPTIONS

Carpentry Lab and Theory I

This combined theory and laboratory practice class provides instruction in hand and power tools, site layout and foundations, rough framing, roof framing, structural shell basics, stair construction, exterior finish and safety.

Carpentry Math I

Basic arithmetic, reading the rule, whole numbers, common and decimal fractions, cubic and weight measures, area calculations, surface and direct measurements and framing square computations are included.

Blueprint Reading I

This course offers basic instruction in sketching residential working drawings and blueprints.

Carpentry Lab and Theory II

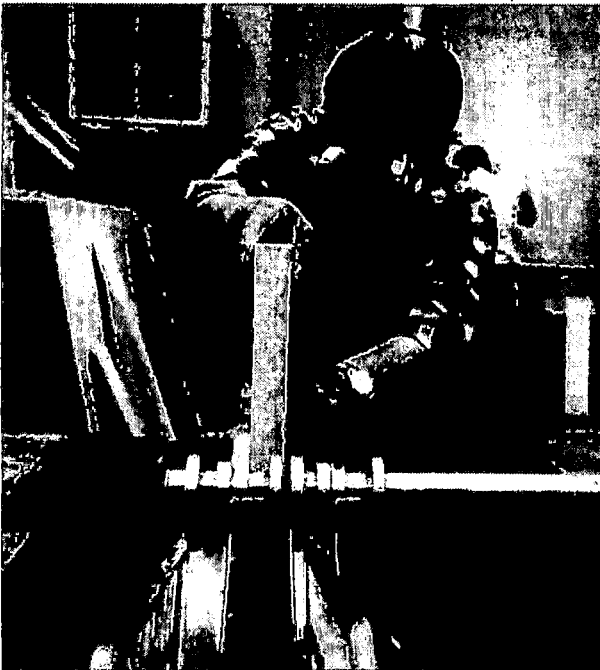
(Prerequisite: All Trimester I Courses) Materials covered in this course are a continuation of Trimester I lab/theory, with emphasis on interior trim dry wall, finish carpentry, basic construction and installation of cabinets and millwork.

Carpentry Math II

(Prerequisite: Carpentry Math I) Instruction is provided in the use of rules and formulas, ratio and proportion, volume, geometric construction, basic surveying computations and estimating.

Blueprint Reading II

(Prerequisite: Blueprint Reading I) This course includes an introductory study of blueprint applications to residential tract homes, multiple family dwellings and commercial buildings.



Diesel Mechanics

5 Trimesters

This program, the only state-approved diesel mechanics training course in New Mexico, provides students with the technical knowledge and skills needed for entry and satisfactory performance in the diesel industry.

Job projections for the future, both statewide and nationally, show that a great number of new mechanics in this field will be needed in the next ten years.

Students learn basic engine block assembly design, component parts disassembly, inspection and reassembly, diesel engine accessories, diagnosis and troubleshooting in the first trimester. In the second trimester, emphasis is on various fuel injection systems, injectors, governors and analysis procedures. Third trimester instruction covers engine overhaul, troubleshooting and failure analysis, major causes of engine operational or performance failure and reclaiming engine performance procedures.

In the fourth trimester, transmissions, final drives, clutches, brakes, hydraulics, and diesel equipment and vehicle preventive maintenance are included. Basic and advanced electricity, various heavy duty electrical systems, hydraulic accessories and testing, service procedures and corrective measures are studied fifth trimester.

The 20-month program totals 2,250 hours of instruction, of which 1,350 hours are laboratory work and 900 hours are supporting courses.

A student may leave the program upon completion of a training objective and receive a rating sheet detailing the skills mastered in the program. Special recognition is given to those students completing all of the courses in the program.

Diesel Mechanics students must pay a \$205 equipment fee, \$65 before entering the first trimester and \$35 before each additional trimester and must provide their own industrial safety glasses or goggles.

ENTRANCE REQUIREMENTS

1. Must make an acceptable score on a mathematics and reading test.
2. Must be free of chronic respiratory diseases and allergies to diesel fuels and solvents.
3. Must be able to lift materials and equipment weighing up to 50 pounds.
4. Must have an interview with the program coordinator and admissions counselor.



DIESEL MECHANICS PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Diesel Engine Principles and Accessories Lab	15
Diesel Engine Principles and Accessories Theory . . .	5
Diesel Math and Precision Measurements	5
Blueprint Reading	5
<i>Trimester II</i>	
Diesel Fuel Injection Lab	15
Diesel Fuel Injection Theory	5
Diesel Math and Physics	5
Basic Machine Tool Practice	5
<i>Trimester III</i>	
Diesel Engine Overhaul Lab	20
Diesel Engine Overhaul Theory	5
Welding	5
<i>Trimester IV</i>	
Diesel Transmissions, Final Drives, Clutches and Brakes Lab	20
Diesel Transmissions, Final Drives, Clutches and Brakes Theory	5
Industrial Electricity	5
<i>Trimester V</i>	
Diesel Electrical Systems and Hydraulics Accessories Lab	20
Diesel Electrical Systems and Hydraulics Accessories Theory	5
Business Relations	5

COURSE DESCRIPTIONS

Diesel Engine Principles and Accessories Lab/Theory

This course offers instruction in diesel shop safety and basic tools and equipment used by the diesel mechanic. Emphasis is placed on two- and four-stroke diesel engines, including basic engine cylinder block assembly design, component parts, disassembly, inspection and reassembly; fits, tolerances and service specifications; lubricating, cooling, air intake and fuel systems; governor control design; oil pressure and heat safety control devices; and diagnosis and troubleshooting.

Diesel Math and Precision Measurements

This course, correlated with Diesel Engine Principles and Accessories Lab and Theory, reviews basic arithmetic operations including formulas, graphs, meters, fluid calculations and precision measuring instruments.

Blueprint Reading

Basic instruction in reading and interpreting drawings related to diesel mechanics is offered in this course. Emphasis is on terminology, details, abbreviations and symbols, schematics and sketching of orthographic and isometric drawings.

Diesel Fuel Injection Lab/Theory

(Prerequisite: All Trimester I Courses) This combined theory and practice class provides instruction in fuel system design, theory, construction, operating principles and servicing procedures; distributor-type and multi-plunger fuel systems; testing procedures for various fuel systems; injectors and governors; and troubleshooting and analysis sequence procedures.

Diesel Math and Physics

(Prerequisite: Diesel Math and Precision Measurements) Instruction in the use of rules and formulas, ratio and proportion, volume, pulley speeds, velocity or surface speed, application of algebraic calculations, geometric figures and right angle functions, and physics principles as associated with engine operation and engine life expectancy is provided.

Basic Machine Tool Practice

(Prerequisite: Diesel Math and Precision Measurements and Blueprint Reading) A combination laboratory and theory course designed for instruction in shop safety; basic benchwork; precision measuring instruments; machine construction and basic operations on the drill press, lathe and band saw. The fundamental machining and benchwork operations on bushings, bearings, gear shafts, drilling and reaming holes in diesel engine blocks, transmission final drive housings and ancillary accessories are thoroughly covered.

Diesel Engine Overhaul Lab/Theory

(Prerequisite: All Trimester II Courses) This combined laboratory and theory course teaches the disassembling of the diesel engine, engine performance characteristics, engine operational or performance failure, major wear failure causes, salvage operations, wear failure to tolerances and specifications, reclaiming engine performance

procedures, reassembly of the diesel engine, and testing and troubleshooting. Principles of metallurgy as they relate to diesel metals; sleeves, crankshaft materials and alloys, piston rings, rods, piston alloys, and main and connecting rod bearings; processes, terminology, structure and properties of metal and alloying elements; and failure analysis of diesel engine parts and accessories are thoroughly covered.

Welding

This laboratory practice class includes safety practices, general tools and equipment, sources of heat, operational procedures, metals and their properties, and applications of oxyacetylene and arc welding to diesel repairs.

Diesel Transmissions, Final Drives, Clutches and Brakes Lab/Theory

(Prerequisite: All Trimester III Courses or Equivalent)

A laboratory practice class designed to give instruction in service, repair and troubleshooting of transmissions, torque convertors, final drives, crawler tractor undercarriages, clutches and brakes. Hydraulic principles and service specifications are thoroughly covered. Dealer pre-delivery service; preventive, field and operational maintenance; dealer service department periodic service; equipment operational procedures; oil analysis and use of lubricants; and an understanding of the equipment life expectancy to the preventive maintenance program are covered.

Industrial Electricity

Basic principles of electricity, electronic components and symbols, schematic reading, transistor and automatic controls are covered. The course includes laboratory experiments in practical applications of electricity and electronics in the diesel mechanics field.

Diesel Electrical Systems and Hydraulics Accessories Lab/Theory

(Prerequisite: Diesel Engine Overhaul Lab/Theory)

This course offers instruction in basic and advanced diesel electricity, electrical circuits and components; carburetion on gasoline, liquified petroleum and natural gas engines; magneto design, construction and maintenance; and heavy-duty direct current usage in generators, regulators, cranking motors and their controls. Hydraulic pump operating principles, control devices, cylinders, tubing heat exchangers and hydraulic motors, fits, tolerances and service specifications are thoroughly covered. Test and service procedures are stressed throughout the course. The course also includes a study of technical data, specification materials and service reports needed by the diesel industry with emphasis on the preparation, collection of data, organization, style and format.

Business Relationships

This course includes business terminology, law, organization and operations; problems of distributing goods and services; physical facilities; finance; keeping records; invoice and billing procedures; managing merchandise; and customer and personal relations as they relate to the diesel industry.

Electrical Trades

2 Trimesters

This program provides students with entry-level skills for employment in the construction industry and related electrical trades as an electrician trainee.

During the first trimester, the fundamentals of installing residential electrical wiring, use of tools and equipment, and electrical codes are taught. In the second trimester, emphasis is on installation of electrical service for appliances and special equipment, calculating service entrances, application codes, estimating electrical materials, and job planning and coordinating.

The eight-month program consists of 900 hours of instruction, of which 450 hours are laboratory and 450 hours are supporting courses.

A student may leave the program upon completion of a training objective and receive a rating sheet detailing the skills mastered in the program. Special recognition is given to those students completing all of the courses in the program.

Electrical Trades students must pay a \$100 equipment fee, \$65 before entering the first trimester and an additional \$35 before the second trimester.

ENTRANCE REQUIREMENTS

1. Must make an acceptable score on a mathematics and reading test.
2. Must be able to lift materials and equipment weighing up to 50 pounds.
3. Must have an interview with the program coordinator and admissions counselor.
4. Must have normal color vision.

ELECTRICAL TRADES PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Electrical Trades Lab I	15
Electrical Trades Theory I	5
Electrical Math I	5
Blueprint Reading I	5

<i>Trimester II</i>	
Electrical Trades Lab II	15
Electrical Trades Theory II	5
Electrical Math II	5
Blueprint Reading II	5

COURSE DESCRIPTIONS

Electrical Trades Lab and Theory I

This combined laboratory and related theory course provides instruction in safety; use of tools and equipment; electrical codes and utility regulations; basic electrical principles and measurements; wiring materials and devices; splices and connections; wiring systems and circuits; installing outlets, switch boxes, nonmetallic sheathed cable, overcurrent devices, low voltage equipment, branch circuits and service entrances.

Electrical Math I

Covered are basic arithmetic and simple electrical formulas; various trade application problems involving calculations of materials; Ohm's law; series, parallel and combination circuits; mechanical work and power; and resistance of wire, size of wire and circuit loads.

Blueprint Reading I

This course offers basic instruction in sketching; reading working drawings and blueprints; and includes specifications for electrical products, electrical codes, and circuit and lighting schedules.

Electrical Trades Lab and Theory II

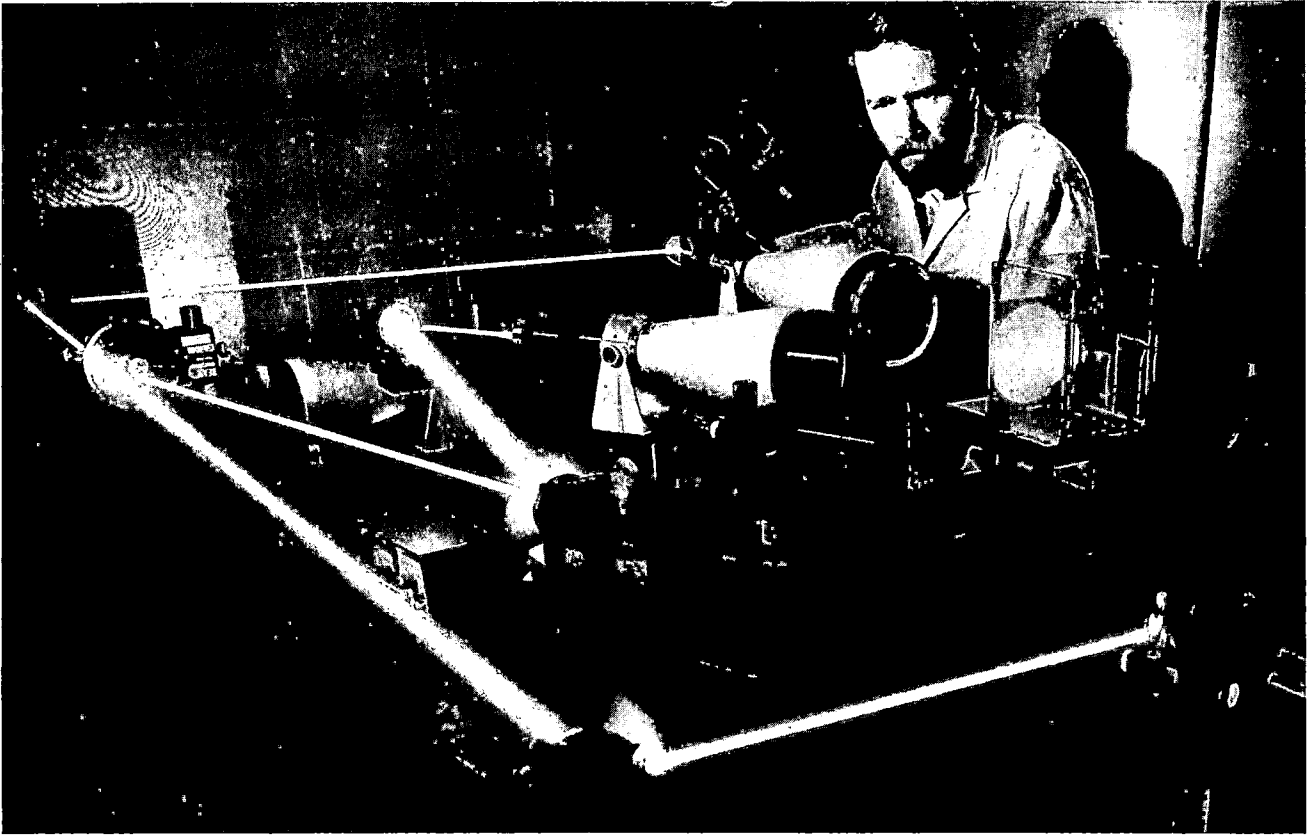
(Prerequisite: All Trimester I Courses) Installation of range and clothes dryer circuits; electric service for water heaters, space heaters, motors and furnace controls; electric heating; service and metering equipment; remote control and outside wiring; signal and communication systems; methods of wiring flexible armored cable and electrical metallic tubing; modernizing electrical systems; electric lighting; electrical wiring design; and estimating electrical wiring and supplies for the job are included.

Electrical Math II

(Prerequisite: Electrical Math I) Instruction in electrical rules and formulas, ratio and proportion, volume, basic principles of square root, trade application of geometric principles and right triangles, basic algebraic principles involving electrical efficiency, resistance of wiring and wire sizing, calculating service entrances and estimating materials for the electrical trades is provided.

Blueprint Reading II

(Prerequisite: Blueprint Reading I) This course includes a detailed study of electrical drawings; knowledge of terms; methods of installation; local, state and national electrical codes; interpreting residential blueprints; and planning and coordinating the job.



Electronics III

(Prerequisite: *Electronics II*) Principles of operation of AM, FM and SSB communications equipment will be presented and circuits typically found therein will be studied and analyzed. Fundamentals of transmission line theory pertaining to high frequency signal transmission will also be covered. The objective is to have students relate basic concepts learned in Electronics I and II to useful circuitry.

Semiconductor Principles and Applications

(Prerequisite: *Electronics II*) This is a thorough course in transistor theory and application, including design techniques using the common emitter, common base and common collector configurations. In addition, other devices such as the FET, MOS, unijunction, light emitters and detectors are introduced.

Optics

(Prerequisite: *Math for LEOT and Introduction to Lasers*) This course includes the study of geometric and wave optics principles. Techniques in the care and use of optical components are emphasized in the laboratory.

Laser and Electro-Optic Components

(Corequisite: *Optics*) This course deals with the tools of the technology. Lenses, filters and other components are studied from the point of view of quality and cost. Students will gain the practical knowledge useful in choosing the proper component for a job.

Computer Programming

This course contains the introduction of the complete FORTRAN IV SYNTAX. Also included are the programming techniques to fully utilize the features of the FORTRAN IV language.

Electronics Instruments

(Prerequisite: *Electronics III*) The objective of this course is to help the student understand the procedures of instrument calibration, maintenance and repair in accordance with manufacturers' specifications.

Digital Circuits III

(Prerequisite: *Digital Circuits II*) Students learn the organization of a computer system including the CPU, bus structures, memory, instruction sets programming, and applications of micro- and minicomputers.

Laser Projects

(Prerequisite: *Optics and Laser and Electro-Optic Components*) Students will gain experience with a wide variety of materials, fabrication and calibration methods. Students will be encouraged to use their own ingenuity in solving design problems. The importance of keeping an accurate notebook is stressed.

Laser Technology

(Corequisite: *Laser Projects*) In this course, specialized groupings of lasers are studied along with power supplies, flash lamps and other power sources which are used in the technology. Laser systems which are studied are ION gas lasers, molecular gas lasers, solid-state lasers, semi-conductor lasers and organic dye lasers.

Laser and Electro-Optic Measurements

(Corequisite: *Laser Projects*) In this course, emphasis is on standard measurement techniques in Laser Electro-Optics Technology. The principles which underlie the operation of spectrophotometers and interferometers will be studied.

Laser Electro-Optic Technology

4 Trimesters

The emerging technologies of lasers and electro-optics require special training for those persons interested in entering a career in this rapidly growing industry. Lasers and electro-optic devices are used in a variety of areas, including construction and excavation, welding and cutting operations, communications systems, laboratory testing and measurement, data processing, photography, medicine, military and space projects, and research and development.

To enter the program, students must have completed at least one trimester of Electronics at T-VI or have equivalent knowledge and skills. Entering students will be accepted during the winter trimester only.

The entire program leading to a diploma in Laser and Electro-Optic Technology is four trimesters, or 1,800 hours, in length. This includes the first trimester spent in the Electronics Program.

ELECTRONICS PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Electronics I	15
Electronics Math I	10
Digital Circuits I	5

LASER ELECTRO-OPTIC TECHNOLOGY PROGRAM

<i>Trimester II</i>	<i>Hours/Week</i>
Electronics II	15
Digital Circuits II	5
Math for LEOT	5
Introduction to Lasers	5

<i>Trimester III</i>	<i>Hours/Week</i>
Electronics III	15
Semiconductor Principles and Applications	5
Optics	5
Laser and Electro-Optic Components	5
*Computer Programming	5

<i>Trimester IV</i>	<i>Hours/Week</i>
Electronics Instruments	5
Digital Circuits III	5
Laser Projects	10
Laser Technology	5
Laser and Electro-Optic Measurements	5
*Computer Programming	5

*Optional Course

COURSE DESCRIPTIONS

Electronics I

In this course, students learn the basic concepts of direct current electricity, including Ohm's Law, Kirchhoff's Law, and Thevenin's and Norton's theorems. The laboratory provides an opportunity to make observations concerning the topics covered in theory. Basic skills with meters and tools are important parts of the lab.

Electronics Math I

Students study the concepts of number systems, beginning and advanced algebra and Boolean Algebra, the algebra upon which computer circuits are based. The objective is for each student to become skilled in algebraic manipulation and to understand the base 10, base 2 and other number systems relevant to the study of electronics.

Digital Circuits I

This course covers the logic units used in digital circuits which may be applied to an understanding of the computer and their routine use in the operations of a computer system.

Electronics II

(Prerequisite: Electronics I and Electronics Math I) The study of basic circuit laws is extended to alternating current in order that students understand the effects of various circuit elements. Inductance, capacitance, vacuum tubes and semiconductors are introduced. The lab provides the opportunity to verify theoretical concepts by making observations with resonant circuits, filters, power supplies and amplifier circuits.

Digital Circuits II

(Prerequisite: Digital Circuits I) In this course, students become skillful with the actual devices used in computer circuits and learn how these devices are used together to produce a working system. Design of memory, counting, and adding circuits is also a major part of this course.

Math for LEOT

(Prerequisite: Electronics Math I) This course includes the study of basic trigonometry, periodic functions, elementary vector analysis and complex numbers. Students acquire a mathematical basis for understanding observations made in the study of AC circuits and geometric optics.

Introduction to Lasers

(Prerequisite: Admission to LEOT Program) This course introduces the new student to the operation of a laser, the principles of a laser, its output characteristics and safe operating practices. Laboratory work includes the use of the low power helium-neon laser.

Industrial Electricity

2 Trimesters

The Industrial Electricity program provides students with entry level skills for employment in the commercial construction, maintenance or industrial electrician specialties.

The eight-month program consists of 900 hours of instruction, of which 300 hours are laboratory experiences and 600 hours are supporting courses.

A student may leave the program upon completion of a training objective and receive a rating sheet detailing the skills mastered in the program.

Special recognition is given to those students completing all of the courses in the program.

Industrial Electricity students must pay a \$100 equipment fee, \$65 prior to entering the first trimester and an additional \$35 before entering the second trimester, and must provide their own shop clothing and safety glasses or goggles.

ENTRANCE REQUIREMENTS

1. Must make an acceptable score on a mathematics test.
2. Must be able to lift materials and equipment weighing up to 50 pounds.
3. Must have an interview with the program coordinator and admissions counselor.

INDUSTRIAL ELECTRICITY PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Industrial Electricity Lab I	10
Industrial Electricity Theory I	5
Industrial Code Requirements	5
Industrial Electricity Math and Instrumentation	5
Industrial Electricity Blueprint Reading	5
<i>Trimester II</i>	
Industrial Electricity Lab II	10
Industrial Electricity Theory II	5
Industrial Control Systems	10
Basic Physics and Mechanisms	5

COURSE DESCRIPTIONS

Industrial Electricity Lab and Theory I

The course includes principles of direct and alternating current, A.C. and D.C. generators and motors, small motor analysis and troubleshooting, electromagnetic and static controls, magnetic and static electric motor controls, and applications of electrical code.

Industrial Code Requirements

Instruction supports the work accomplished in the Industrial Electricity lab through a study of the commercial and industrial sections of the electrical code.

Industrial Electricity Math and Instrumentation

This course presents the mathematics and instruments encountered in the trade by presenting electrical concepts of beginning and advanced algebra, trigonometric functions, power applications, wiring, magnetic circuit, generator and motor problems, and special applications on transformers.

Industrial Electricity Blueprint Reading

This course provides instruction in unit substratum and high voltage metering equipment; feeder duct and distribution transformers; panel-boards and sub-feeders; lighting circuits and systems; motors and controllers; precipitron units, synchronous condensers, three-phase trolley ducts, signal systems, ventilating and air-conditioning, telephone raceways and alternate methods of feeder layout.

Industrial Electricity Lab and Theory II

(Prerequisite: All Trimester I Courses) Instruction in this course is similar to Industrial Electricity Lab I but in more depth. Major emphasis is placed on industrial control systems, automated motor controls, motor control equipment maintenance, motor acceleration and deceleration, motor speed controls, static control devices, transformer connections and operations, industrial distribution systems and low voltage circuits.

Industrial Control Systems

(Prerequisite: Industrial Code Requirements, Industrial Electricity Math and Instrumentation, and Blueprint Reading or equivalent) This course provides experience in the analysis, development and servicing of automatic control devices, starters, acceleration and braking, speed control devices, multi-station systems, and industrial heating and signalling devices.

Basic Physics and Mechanisms

(Prerequisite: Industrial Electricity Math and Instrumentation) Basic principles of mechanics, sound, light, utilization of basic gears, linkages and conversion mechanisms moves are covered. Emphasis will be placed on modern industrial concepts and trends.

Parts Specialist

2 Trimesters

The Parts Specialist Program Prepares students for entry-level employment in the four phases of parts sales: shipping and receiving, stocking, inventory control and counter sales. Also included are some secondary areas such as outside parts sales, inventory supervision, inventory purchasing and control, management of satellite store parts sales and office manager.

In the first trimester, students are given instruction and practical experience in catalog use, parts sales organization, shipping and receiving, stocking procedure, inventory control and counter sales.

In the second trimester, actual work experience will be emphasized in major parts supply areas of auto collision, automotive and diesel mechanics.

The eight-month program consists of 900 hours of instruction, of which 600 hours are laboratory and 300 hours are supporting courses.

A student may leave the program upon completion of a training objective and receive a rating sheet detailing the skills mastered in the program. Special recognition is given to those students completing all of the courses in the program.

When the cooperating employer is paying the student for the optional supervised work experience offered during the second trimester, students receiving Veterans Administration or other support agency benefits will receive only partial benefits.

Parts Specialist students must pay a once-only equipment fee of \$35 before entering the first trimester.

ENTRANCE REQUIREMENTS

1. Must make an acceptable score on a mathematics and reading test.
2. Must be free of chronic respiratory diseases and allergies to automotive fuels and solvents.
3. Must be able to lift materials and equipment weighing up to 50 pounds.
4. Must have an interview with the program coordinator and admission counselor.

PARTS SPECIALIST PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Parts Specialist Lab I	20
Parts Specialist Theory I	5
Parts Sales Math	5

<i>Trimester II</i>	<i>Hours/Week</i>
Parts Specialist Lab II	20
Parts Specialist Theory II	5
Office Procedures for Parts Sales	5



COURSE DESCRIPTIONS

Parts Specialist Lab and Theory I

This combined theory and laboratory practice class provides instruction in automotive collision, automotive and diesel parts nomenclature, parts sales, shipping and receiving procedures, inventory control, counter sales and safety.

Parts Sales Math

Basic arithmetic, percentages, ratio and proportion, sales ticket, work order, special order, and estimate parts writing, as well as metric systems and volumes, are covered.

Parts Specialist Lab and Theory II

(Prerequisite: All Trimester I Courses) Materials covered in this course are a continuation of Trimester I Lab/Theory, with emphasis on actual working business problems. Employer-employee rules and guidelines, counter sales problems, dealership catalogs, and dealership operation and parts house operation will be included.

Supervised work experience may be substituted for this lab with student trainees being paid by the cooperating industry. All students taking part will follow a training plan developed by the cooperating employer and the parts specialist staff.

Office Procedures for Parts Sales

This course includes the use of office machines, telephone sales techniques, business terminology, office procedures, business organizations, finance, keeping records and operations, distribution of goods, invoice and billing procedures, and customer and personal relations as they relate to the parts sales industry.



Baking

1 Trimester

This specialty in the food service field will prepare persons for jobs as bakers in restaurants, bake shops, bakeries and institutional kitchens, such as schools or hospitals. Persons entering this field should be early-risers since most commercial baking begins early in the morning. This class will begin at approximately 5 a.m.

Applicants for the baking program must have completed all of the first trimester classes in the T-VI Culinary Arts Program or have had equivalent training or experience.

The fifteen-week program is 375 hours long and students may leave the program upon completion of a training objective and receive a rating sheet detailing the skills mastered in the program. Special recognition will be given to those students successfully completing the entire program.

Baking students are required to pay an equipment fee of \$35 to cover the cost of special baking utensils. Students provide their own uniforms.

This program is not approved for Veterans Administration benefits.

ENTRANCE REQUIREMENTS

1. Must have completed the first trimester of T-VI's Culinary Arts Program or equivalent.

2. Must make an acceptable score on a mathematics and reading test.
3. Must be free of chronic allergies to detergents and soap.
4. Must have an interview with the program coordinator and admissions counselor.
5. Health Requirement: Persons enrolling in this program must present to the school authorities, upon their initial enrollment, a certificate stating that they are free from tuberculosis in a transmissible form. The certificate must be signed by a licensed physician and must be secured not more than 90 calendar days prior to the starting date of the program.

BAKING PROGRAM

<i>Course Requirements</i>	<i>Hours/Week</i>
Baking Lab	20
Baking Theory and Merchandising	5

COURSE DESCRIPTIONS

Baking Lab/Theory and Merchandising

Students are introduced to the fundamentals of production, processing and mixing of various ingredients used in bread and rolls, sweet yeast dough products and specialties, biscuits and muffins, doughnuts and crullers, pies and pastries, cakes and cake specialties, and cookies. Also included are care and use of equipment, bakery sanitation, proper storage of ingredients, experiments with baking formulas, chemical leavening agents, and baking ingredients and their properties.

Basic storeroom procedures, record keeping and product merchandising are included in the merchandising portion of the class.

Culinary Arts

2 Trimesters

The Culinary Arts Program emphasizes nutritional food preparation leading to entry into one of the fastest growing industries as sauté cook after the first trimester or dinner cook upon completion of the full program.

In the first trimester, students learn the fundamentals of food preparation and principles of cookery, use of tools and cleanliness of equipment. During the second trimester, students are given instruction in the cooking, proper care, and refrigeration of foods; fundamentals of baking; background knowledge and basic instruction in cutting of meats; and ordering and purchasing procedures.

The eight-month program consists of 900 hours of instruction, of which 525 hours are laboratory and 375 hours are supporting courses. Students may enter the program at the beginning of each trimester or at midterm on a space available basis.

A student may leave the program upon completion of a training objective and receive a rating sheet detailing the skills mastered in the program. Special recognition is given to those students completing all of the courses in the program.

The Culinary Arts students must pay a \$100 equipment fee, \$65 before entering the first trimester and an additional \$35 before the second trimester.

ENTRANCE REQUIREMENTS

1. Must make an acceptable score on a mathematics and reading test.
2. Must be free of chronic allergies to detergents and soap.
3. Must have an interview with the program coordinator and admissions counselor.
4. Health Requirement: Persons enrolled in this program must present to the school authorities, upon initial enrollment, a certificate stating that they are free from tuberculosis in a transmissible form. The certificate must be signed by a licensed physician and must be secured not more than 90 calendar days prior to the starting date of the program.

CULINARY ARTS PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Sauté Cook Lab	15
Sauté Cook Theory	5
Food Service Math	5
Business Relations	5

Trimester II

Dinner Cook Lab	20
Dinner Cook Theory	5
Food and Nutrition	5

COURSE DESCRIPTIONS

Sauté Cook Lab

This laboratory class teaches the different methods of preparing meats, vegetables, soups, sauces and thickening agents, sandwiches and salads, breakfast food and basic baking. Emphasis is placed on food costs, nutrition, personal hygiene and sanitation, safety, tools and stationary equipment, and basic cashiering as applied to Culinary Arts.

Sauté Cook Theory

Instruction is provided in sautéed dishes, cuts of meat, mixing, breading, color and appearance of food, neatness of serving, cooking methods and techniques, speed and efficiency, and cleanliness. Basic instruction is given in sauté frying, broiling of sea foods and methods of serving.

Food Service Math

Basic arithmetic is studied in this course. Industrial applications are thoroughly covered and applied to the Culinary Arts major.

Business Relationships

This is an introductory course that explores the applications of employee-employer relations, customer and personnel relations, dependability and initiative, business terminology, business organizations and operations, problems of distributing goods and services, physical facilities, keeping records, invoice and billing procedures, managing merchandise and occupational opportunities in the culinary arts industry.

Dinner Cook Lab

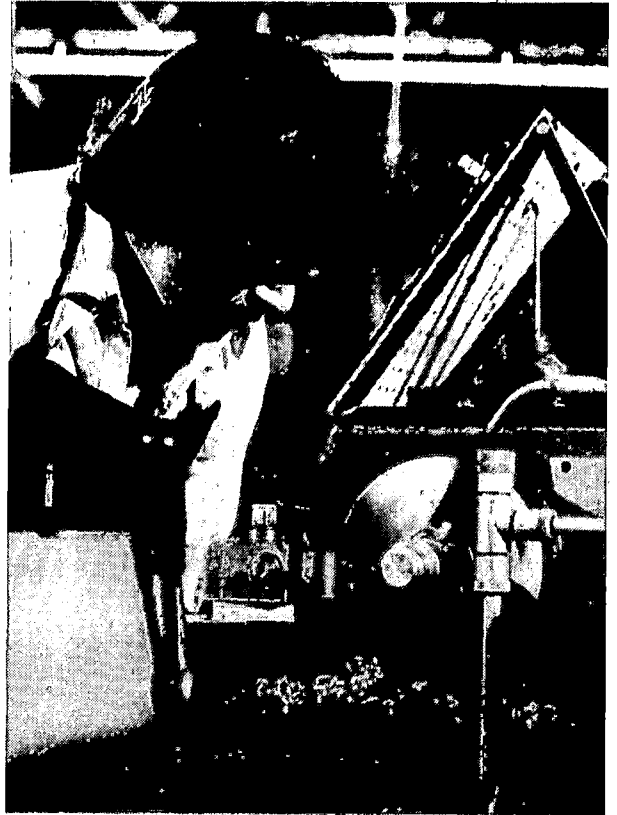
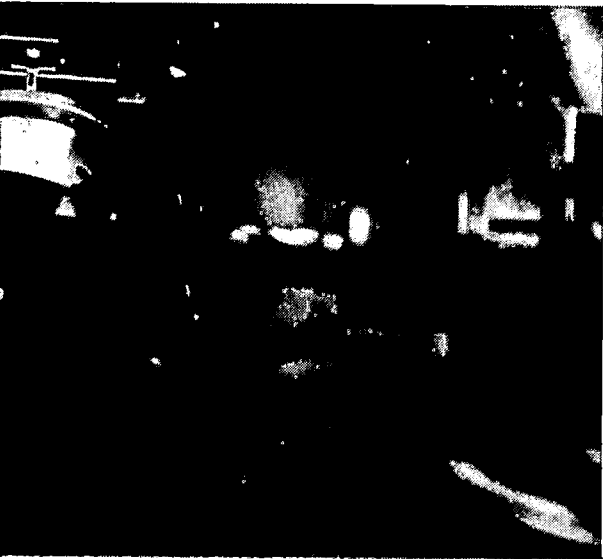
(Prerequisites: All Trimester I Courses) This laboratory class gives instruction in cooking methods and techniques, herbs and spices, cutting meats, salads and salad dressings, baking, following instructions in menus, calculation of cost and pantry work.

Dinner Cook Theory

(Prerequisites: All Trimester I Courses) Instruction supports the work accomplished in the dinner cook lab. Emphasis is on various types of stews, fricassees, garnishes, sauces, gravies and stocks. This course also covers roasting meats, use of leftover meats and meat trimmings, fundamentals of baking and storage of foods.

Food and Nutrition

(Prerequisite: Sauté Cook Lab and Theory) Included in this course are principles of good nutrition in menus and preparation; therapeutic diets; deteriorative factors and their control; preservation and various methods of processing; food irradiation and microwave heating; additives, wholesomeness and consumer protection; substitute and convenience foods; inspection and grading; environmental health requirements; and technological changes in the food service industry.



Machine Trades

3 Trimesters

The Machine Trades Program qualifies students for entry into the machine trades field as machine tool operators.

Students learn the fundamental operations of all machines, and it is possible to specialize in drilling machine set-up and operations in the first trimester. During the second and third trimesters, each student is encouraged to specialize on at least one type of machine in addition to continuing to develop skills on various types of machines. The specialization may include lathes, milling and grinding machines.

The year-long program offers up to 1,350 hours of instruction, of which 750 hours are laboratory and optional supervised work experi-

ences based on industrial trends and 600 hours are supporting courses.

A student may leave the program upon completion of a training objective and receive a rating sheet detailing the skills mastered in the program. Special recognition is given to those students completing all of the courses in the program.

When the cooperating employer is paying the student for the optional supervised work experience offered during the third trimester, students receiving Veterans Administration or other support agency benefits will receive only partial benefits.

Machine Trades students must pay a \$145 equipment fee, \$75 before entering the first trimester and \$35 before each additional trimester, and must provide their own industrial safety glasses or goggles.

ENTRANCE REQUIREMENTS

1. Must make an acceptable score on a mathematics and reading test.
2. Must be free of chronic respiratory diseases and allergies to oils, solvents and cutting fluids.
3. Must be able to stand on concrete floors for eight to ten hours per day.
4. Must have depth perception correctable in both eyes.
5. Must be able to lift materials and equipment weighing up to 50 pounds.
6. Must have an interview with program coordinator and admissions counselor.

COURSE DESCRIPTIONS

<i>Trimester I</i>	<i>Hours/Week</i>
Machine Trades Lab I	15
Machine Trades Theory I	5
Machine Trades Math I	5
Machine Trades Blueprint Reading	5
<i>Trimester II</i>	
Machine Trades Lab II	15
Machine Trades Theory II	5
Machine Trades Math II	5
Machine Trades Blueprint Reading II	5
<i>Trimester III</i>	
Machine Trades Lab III	20
Machine Trades Theory III	5
Machine Trades Math III	5

COURSE DESCRIPTIONS

Machine Trades Lab I

This laboratory practice course gives the beginning student instruction in the areas of shop safety, basic benchwork, precision measuring instruments, machine construction, and basic operations on the drill press, pedestal grinder, drill point grinder, milling machine, engine lathe and vertical band saw.

Machine Trades Theory I

This course supports the work accomplished in Machine Trades Lab I. It covers the fundamental principles of various machines, such as the lathe, drill press, band saw and bench grinders, along with benchwork fundamentals.

Machine Trades Math I

Powers and roots, percentages, surface measurements and direct measurements, threads and tapers as applied to the machine trades field are covered.

Machine Trades Blueprint Reading I

Basic instruction in reading and interpreting shop drawings is offered. Emphasis is on terminology, dimensions, and visualizing and sketching of orthographic and isometric shop drawings.

Machine Trades Lab II

(Prerequisites: All Trimester I Courses) Materials covered are similar to those in Machine Trades Lab I except that students will be exposed to more complex operations and set-up of various machine tools. Instructional

emphasis will be placed on the engine lathe, operations of taper turning, threading, introduction to four-jaw chuck work and basic introduction to tracer lathes; basic milling machine operations; surface grinding; tool and cutter grinding; introduction to cylindrical grinding; and manual numerically controlled (N/C) operation. Metric dimensioned drawings and utilization of true position dimensioning will also be covered.

Machine Trades Theory II

(Prerequisites: All Trimester I Courses) This class involves daily discussions of problems arising from lab sessions. Emphasis is on the technical aspects of tooling as it applies to the various machine tools assigned in the lab with an introduction to the N/C milling machine.

Machine Trades Math II

(Prerequisite: Machine Trades Math I) Instruction is provided in the use of rules and formulas, ratio and proportion, velocity or surface speed, geometric principles, square root, basic metric applications and indexing as applied to the machine trades field.

Machine Trades Blueprint Reading II

(Prerequisite: Machine Trades Blueprint Reading I) This course teaches students to interpret complete shop drawings, including size definition, true positioning symbols and coding practices as applied to the machine trades field.

Machine Trades Lab III

(Prerequisites: All Trimester II Courses) Materials covered in this course will be similar to those covered in Machine Trades Lab I and II but in more depth. Major emphasis is on milling machine operations of hole production, indexing and rotary table work with N/C setup and basic tape operations. Less time will be spent on lathe work than in Trimester II. Students are given practical experience in utilizing precision measuring equipment as it applies to the inspection of manufactured parts. Basic off-set four-jaw chuck work, internal single point threads, basic turret lathe setup and operation, basic boring, introduction to cutting of acme threads, cylindrical grinding, and tool and cutter grinding are included. True position dimensioning, the metric system and assembly drawings as applied to the trade will also be covered.

Supervised work experience may be substituted for this lab with student trainees being paid by the cooperating industry. All students taking part will follow a training plan developed by the cooperating employer and the Machine Trades staff.

Machine Trades Theory III

(Prerequisites: All Trimester II Courses) Problems arising from the lab sessions are reviewed daily. Instruction is given on the various measuring tools used in inspection, milling machine application with an introduction to word address N/C milling machines, lathe work and an introduction to basic elements of heat treatment.

Machine Trades Math III

(Prerequisite: Machine Trades Math II) This course provides instruction in formula manipulation in dealing with problems arising from shop-related right triangle problems, as well as mathematical operations from the Morse Practical Guide and industrial blueprints.

Masonry

2 Trimesters

The Masonry Trades Program teaches the skills and practices needed to enter the masonry construction field. In the first trimester, students learn the fundamentals of masonry and masonry machines. During the second trimester, advanced masonry skills, such as chimneys, fireplaces, arches, floors and estimating are emphasized.

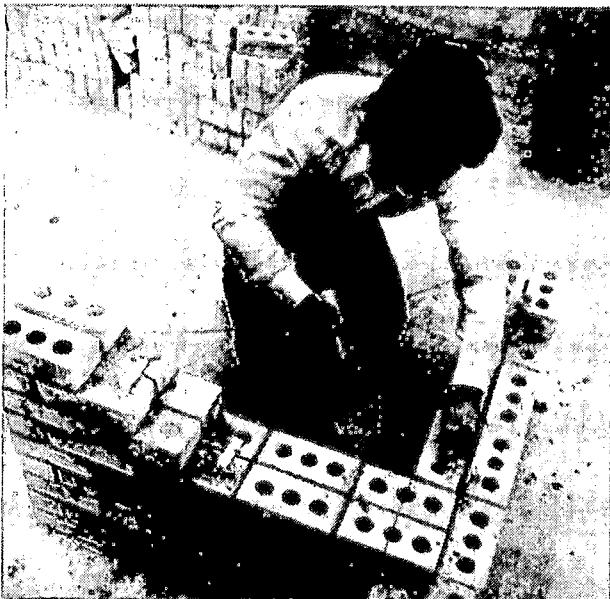
The eight-month program consists of 900 hours of instruction, of which 600 hours are laboratory experiences and 300 hours are supporting courses.

A student may leave the program upon completion of a training objective and receive a rating sheet detailing the skills mastered in the program. Special recognition is given to those students completing all of the courses in the program.

Masonry Trades students must pay an equipment fee of \$100, \$65 before entering the first trimester and \$35 before entering the second trimester.

ENTRANCE REQUIREMENTS

1. Must make an acceptable score on a mathematics and reading test.
2. Must be free of chronic lime or cement product allergies.
3. Must be able to lift materials and equipment weighing up to 50 pounds.
4. Must have interview with the program coordinator and admissions counselor.



MASONRY TRADES PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Masonry Trades Lab I	20
Masonry Trades Theory I	5
Masonry Math I	5

<i>Trimester II</i>	<i>Hours/Week</i>
Masonry Trades Lab II	20
Masonry Trades Theory II	5
Blueprint Reading I	5

COURSE DESCRIPTIONS

Masonry Trades Lab and Theory I

Instruction includes masonry trades safety, tools and equipment, and scaffold building. Various masonry materials, simple structures, and basic builders level and transit set-ups are covered.

Masonry Math I

This course covers basic arithmetic, square and cubic measure, measures of weight and capacity, mensuration and estimating masonry materials.

Masonry Trades Lab and Theory II

(Prerequisite: All Trimester I Courses) This course includes chimneys and multiple fireplaces, arches, decorative stone, concrete block walls and building construction, basic concrete plastering and cement work, various types of patios, estimating masonry materials for the job, advanced builders' level and transit set-ups.

Blueprint Reading I

Basic instruction is offered in sketching and reading working drawings and blueprints. Specifications for masonry products are included.

Plumbing

2 Trimesters

The Plumbing Program provides the technical knowledge and occupational skills necessary to enter the plumbing industry.

During the first trimester, students receive instruction in the fundamentals of layout, assembly and installation; alteration and repair of piping systems; manipulative skills; and tools of the trade. Emphasis in the second trimester is on layout rigging; planning and coordinating the job; application of codes; and installation of water, soil and vent lines.

The eight-month program consists of 900 hours of instruction, of which 450 hours are laboratory experiences and 450 hours are supporting courses.

A student may leave the program upon completion of a training objective and receive a rating sheet detailing the skills mastered in the program. Special recognition is given to those students completing all of the courses in the program.

Plumbing students must pay a \$100 equipment fee, \$65 before entering the first trimester and an additional \$35 before the second trimester.

ENTRANCE REQUIREMENTS

1. Must make an acceptable score on a mathematics and reading test.
2. Must be free of chronic respiratory disease and allergies to plumbing fluxes, oils, glues and plastic compounds.
3. Must be able to lift materials and equipment weighing up to 50 pounds.
4. Must have an interview with the program coordinator and admissions counselor.

PLUMBING PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Plumbing Lab I	15
Plumbing Theory I	5
Plumbing Math I	5
Blueprint Reading I	5

<i>Trimester II</i>	
Plumbing Lab II	15
Plumbing Theory II	5
Basic Welding	5
Blueprint Reading II	5



COURSE DESCRIPTIONS

Plumbing Lab/Theory I

This class provides instruction in the safe and proper use of tools and equipment; elements of plumbing; identification of plumbing fittings and pipe; basic hydraulics and pneumatics; and layout, assembly, installation, alteration and repair of pipe systems.

Plumbing Math I

This course covers basic arithmetic, reading the rule, whole numbers, common and decimal fractions, cubic and weight measures, use of rules and formulas, ratio and proportion, area calculations, volumes, pressure and capacities, hydraulics and pipe length calculations, heat loss problems, and surface and direct measurements.

Blueprint Reading I

This course offers basic instruction in sketching, working drawings and blueprints.

Plumbing Lab/Theory II

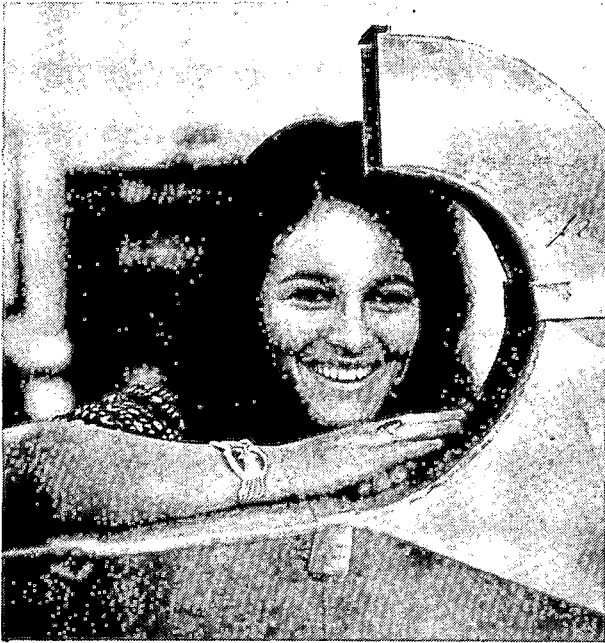
(Prerequisite: All Trimester I Courses) Emphasized in this course are design; layout and installation of water, soil and vent lines; related fixtures and fittings; inspecting and testing systems; soldering and brazing; rigging; and maintenance and repair of plumbing systems.

Basic Welding

This laboratory practice class teaches safety practices, general tools and equipment, sources of heat, operational procedures, metals and their properties, and applications of oxyacetylene and arc welding to residential plumbing repairs.

Blueprint Reading II

(Prerequisite: Blueprint Reading I) Course content includes a detailed study of piping drawings, isometric pipe layouts, interpreting residential blueprints, application of plumbing codes, knowledge of terms, and planning and coordinating the job.



Sheet Metal

2 Trimesters

The Sheet Metal Program equips students with the technical knowledge and skills needed for satisfactory performance in layout, fabrication, installation and maintenance of sheet metal work.

During the first trimester, students learn sheet metal processes performed with hand, bench, cutting and layout tools. In the second trimester, emphasis is placed on sheet metal machines and accessories, pattern development and sheet metal applications.

The eight-month program consists of 900 hours of instruction, of which 525 hours are laboratory and 375 hours are supporting courses.

A student may leave the program upon completion of a training objective and receive a rating sheet detailing the skills mastered in the program. Special recognition is given to those students completing all of the courses in the program.

Sheet Metal students must pay an equipment fee of \$100, \$65 before entering the first trimester and additional \$35 before entering the second trimester.

ENTRANCE REQUIREMENTS

1. Must make an acceptable score on a mathematics and reading test.
2. Must be free of chronic respiratory diseases and allergies to sheet metal fluxes and metals.
3. Must be able to lift materials and equipment weighing up to 50 pounds.
4. Must have an interview with the program coordinator and admissions counselor.

SHEET METAL PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Sheet Metal Lab I	15
Sheet Metal Theory I	5
Sheet Metal Math	5
Welding	5

<i>Trimester II</i>	<i>Hours/Week</i>
Sheet Metal Lab II	20
Sheet Metal Theory II	5
Blueprint Reading I	5

COURSE DESCRIPTIONS

Sheet Metal Lab/Theory I

Instruction is provided in sheet metal processes performed with hand, bench, cutting and layout tools; safety; care of tools and equipment; materials and supplies; straight, parallel and radial line pattern development; soldering techniques; and the fabrication, erection and maintenance of residential ventilating, air-conditioning and heating sheet metal systems.

Sheet Metal Math

This course covers basic arithmetic. Area calculations, surface and direct measurements, angular measure, geometric constructions, geometric figures and solids, and basic right triangle calculations are thoroughly covered.

Welding

This introductory laboratory class includes safety practices, general tools and equipment, sources of heat, operational procedures, metals and their properties, and applications of oxyacetylene and arc welding to the sheet metal field.

Sheet Metal Lab/Theory II

(Prerequisites: All Trimester I Courses) This course provides advanced training and emphasizes sheet metal machines and accessories, radial line and transition pattern development.

Blueprint Reading I

Basic instruction in working drawings and blueprints is offered in this course. Emphasis is placed on math applications and estimating; elevations and floor plans; symbols and notations; scaling and dimensioning practices; structural information; detail drawings; plot plans; specifications for sheet metal products; city codes; and straight, parallel and radial line pattern development.

Small Engine Mechanics

2 Trimesters

The Small Engine Mechanics Program provides job entry technical knowledge and skills through an instructional program based on the rapidly expanding small engine repair field.

In the first trimester, students learn the use of hand tools, two and four-cycle engines, ignition and starting systems, and engine tune-up procedures. Included in the second trimester are small engine troubleshooting; two- and four-cycle engine overhaul; use of specifications, manuals and microfiche; and reduction, lower units and clutches on construction support equipment and recreational vehicles.

The eight-month program consists of 900 hours of instruction, of which 600 hours are laboratory and 300 hours are supporting courses.

A student may leave the program upon completion of a training objective and receive a rating sheet detailing the skills mastered in the program. Special recognition is given to those students completing the entire program.

Small Engine Mechanics students must pay an equipment fee of \$100, \$65 before entering the first trimester and an additional \$35 before the second trimester.

ENTRANCE REQUIREMENTS

1. Must make an acceptable score on a mathematics and reading test.
2. Must be free of chronic respiratory diseases and allergies to fuels and solvents.
3. Must be able to lift materials and equipment weighing up to 50 pounds.
4. Must have an interview with the program coordinator and admissions counselor.

SMALL ENGINE MECHANICS PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Small Engine Mechanics Lab I	.20
Small Engine Mechanics Theory I	5
Trade Math and Precision Measurements	5
<i>Trimester II</i>	
Small Engine Mechanics Lab II	.20
Small Engine Mechanics Theory II	5
Welding	5

COURSE DESCRIPTIONS

Small Engine Mechanics Lab and Theory I

This course offers instruction in occupational safety; hand tools and shop equipment; fastening devices, threads and lubrication; basic small engine troubleshooting; disassembly, inspection, cleaning, reconditioning, reassembly and checkout; introduction of ignition and starter systems, fuel systems and tune-up techniques; and proper use of manufacturer's specifications, manuals, catalogs and price lists. The course also teaches the student to interpret small engine blueprints and schematics.

Trade Math and Precision Measurements

Basic mathematics as required by the class are reviewed. Emphasis is placed on the use of precision measuring tools found in the trade.

Small Engine Mechanics Lab and Theory II

(Prerequisites: All Trimester I Courses) Detailed instruction in small engine troubleshooting; major engine overhaul; governors; fuel and air systems; engine cooling; advanced tune-up techniques; reduction and lower units; gear, belt and pulley applications; and an introduction to various small engine recreational vehicles are provided. The course also includes instruction in repair orders, invoices, warranty descriptions and customer relations.

Welding

This laboratory course teaches safety practices, general tools and equipment, sources of heat, operational procedures, metals and their properties, and applications of oxyacetylene and arc welding to the small engine repair field.



Welding

3 Trimesters

The Welding Program qualifies students for entry-level employment in the metals processing industry.

During the first trimester, students study oxy-acetylene and shielded metal arc welding. In the second trimester, shielded metal arc is continued and instruction is given in gas tungsten arc and gas metal arc welding. During the third trimester, emphasis is placed on welding fabrication, pipe welding and materials testing towards a goal of welding certification.

The three-trimester program totals 1,350 hours of instruction, of which 750 hours are laboratory practice and 600 hours are supporting courses.

A student may leave the program upon completion of a training objective and receive a rating sheet detailing the skills mastered in the program. Special recognition is given to those students completing all of the courses in the program.

All laboratory courses require standard operator qualification examinations and supporting courses require a final examination in each area supporting laboratory work.

Welding Trades students must pay an equipment fee of \$100, \$65 before entering the first trimester and an additional \$35 before entering the second trimester.

ENTRANCE REQUIREMENTS

1. Must make an acceptable score on a mathematics and reading test.
2. Must be able to lift materials and equipment weighing up to 50 pounds.
3. Must be free of chronic respiratory diseases.
4. Must have an interview with the program coordinator and admissions counselor.

WELDING PROGRAM

<i>Trimester I</i>	<i>Hours/Week</i>
Welding Lab I	15
Welding Metallurgy I	5
Welding Math I	5
Blueprint Reading I	5

<i>Trimester II</i>	<i>Hours/Week</i>
Welding Lab II	15
Welding Metallurgy II	5
Welding Math II	5
Blueprint Reading II	5

<i>Trimester III</i>	<i>Hours/Week</i>
Welding Lab III	20
Industrial Electricity	5
Strength of Welding Materials	5

COURSE DESCRIPTIONS

Welding Lab I

This laboratory practice class teaches welding safety, general tools and equipment, common gases and their properties, welding materials, welding joints, oxyacetylene welding and brazing, metal cutting with gas, and shielded metal-arc welding procedures and processes.

Welding Metallurgy I

Instruction is offered in manufacturing processes; welding terminology, methods and processes; structure and properties of metal; temperature changes in welding; effects of alloying elements; variations of fluxes; slags and gases for shielding; and various symbols, weights and conversion factors.

Welding Math I

This course covers basic arithmetic. Surface and direct measurements, graphs and charts and payroll calculations are thoroughly studied and applied.

Blueprint Reading I

Basic drawing interpretation, welding symbols, terminology, detailed fittings and angle layout as applied to the welding area are covered in this course.



Welding Lab II

(Prerequisite: All Trimester I Courses) This laboratory practice course provides advanced instruction in shielded arc welding and beginning instruction in inert gases and gas-arc welding through the use of various gas-arc welding power sources, torches, electrodes and wire-feed systems. Occupational safety standards and practices are emphasized throughout.

Welding Metallurgy II

(Prerequisite: All Trimester I Courses) Instruction is offered in filler metal for joining iron and steel, shrinkage and distortion in weldments, preheating and post-heating, difficulties and defects in welds, welding carbon steel, welding alloy steels, welding tests, conversion factors and symbols, weights and properties.

Welding Math II

(Prerequisite: Welding Math I) The use of rules, formulas, ratio, proportion, volume and right angle calculations as applied to the welding industry make up the course content.

Blueprint Reading II

(Prerequisite: Blueprint Reading I) Students study welding fabrication. Instruction includes specifications for various types of pipe and fabrication welding, materials estimating, pipe layout and development, pipe and

structural print reading, transferring of measurements from working drawings and blueprints, design considerations and descriptive geometry layout as related to welding fabrication.

Welding Lab III

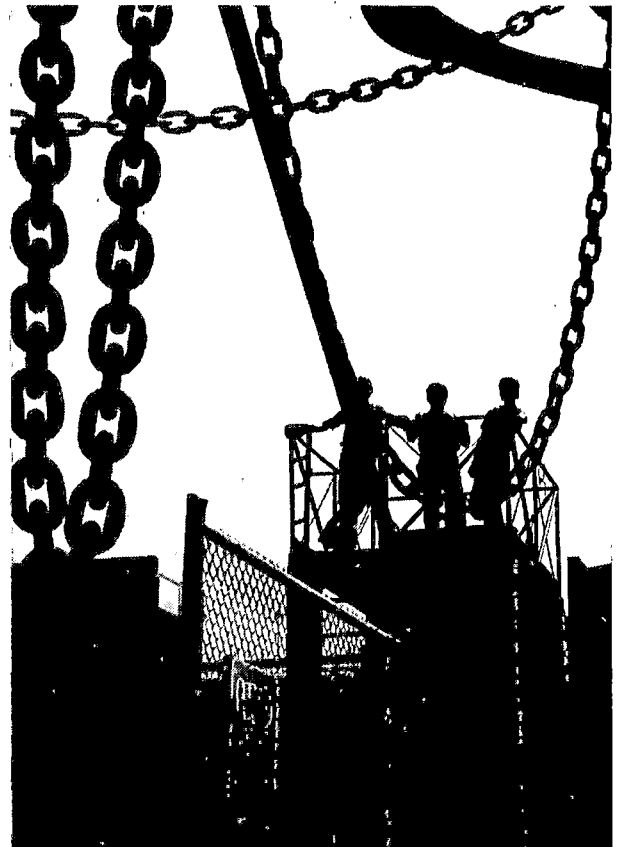
(Prerequisite: All Trimester II Courses) Emphasis is placed on working speed and proficiency in the welding lab through continued practice, shop fabrication production work and selected field work assignments. Instruction is also offered in pipe welding and layout, materials testing, shop management and industrial safety.

Industrial Electricity

This practical course provides instruction in the basic principles of electricity; terminology; electrical components and symbols, schematic reading; conductors; insulators; resistors; Ohm's law and Watt's law; series, parallel and series-parallel circuits; alternating and direct current; transformers; and common practices in electrical circuits related to the welding area.

Strength of Welding Materials

(Prerequisite: Welding Metallurgy II and Welding Math II) This combination laboratory and theory course gives instruction in math as applied to destructive and non-destructive testing, advanced fabrications, welding equipment troubleshooting and advanced metallurgy theory.



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