C A T A L O G 1991 + 1992



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Albuquerque Technical-Vocational Institute

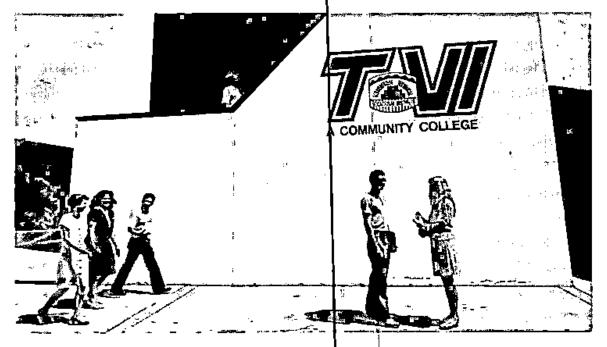
Main Campus

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How to Use This Catalog

The Catalog is the student's official guide to programs, courses and policies of T-VI. The Catalog is divided into three main sections:

■ General Information about T-VI

A summary of academic offerings; information about admission, registration, expenses and financial aid; academic regulations; student services and campus conduct

■ Instructional Programs

Details about T-VI's seven departments, including requirements for earning degrees and certificates

■ Course Descriptions

This Catalog also includes lists of T-VI administrators and instructors, as well as an index. Course schedules are published for each term and are available at the admissions and department offices at both campuses.

The Catalog is a summary of information of interest to students; it is not a complete statement of policies and rules. Information in the Catalog is subject to change.

Not all programs and classes listed in the Catalog are offered at both campuses or every term. If fewer than 12 persons have applied to begin a program, it may be canceled that term. After a program begins, no required class will be canceled, regardless of enrollment, although support classes may be canceled due to insufficient enrollment.

1991-1992 Academic Calendar

Fall Term, 1991	
Classes Begin	Sept. 3
Employee Professional Development Day: no classes	Oct. 18
Midterm	Oct. 25
Thanksgiving Holiday	Nov. 28–29
Last Day of Class (consult department for details)	Dec. 20
Winter Term, 1992	
Classes Begin	Jan. 6
Martin Luther King Holiday	Jan. 20
Presidents' Day Holiday	Feb. 17
Midterm	Feb. 28
Last Day of Class (consult department for details)	
Summer Term, 1992	
Classes Begin	May 4
A&S 12-Week Classes Begin	
Memorial Day Holiday	May 25
Midterm	June 26
Independence Day Holiday	July 3
A&S 12-Week Classes End	August 7
Last Day of Class (consult department for details)	August 19



About T-VI

New Mexico's fastest growing post-secondary school, Albuquerque T-VI is a community college offering courses in a variety of occupational, college credit, developmental/preparatory and adult education subjects. In 1991–92 T-VI's programs include:

- Certificates: Full-time programs in 31 bus ness, health, technologies and trades occupations
 - Associate Degrees: Available in 18 occupational fields and liberal arts
- College Credit: Courses in 24 liberal-arts disciplines transferable for freshman and sophomore credit at four-year institutions
- Developmental Studies: Classes for students preparing to meet admission requirements at T-VI or other institutions
- Adult Education: Basic skills, including English, reading and math; preparation for GED and citizenship exams; and skill-building enrichment clusters

Other T-VI offerings include: special services for students with disabilities; libraries, tutoring services and self-paced learning centers; the Vocational Enrichment Program, with classes at local high schools; and short-term, skill-building, non-credit workshops tailored for working people. In addition, T-VI offers custom training programs for local employers.

In 1965 T-VI held its first classes in surplus barracks and an abandoned elementary school. Today's enrollment exceeds 17,000. The Main Campus occupies 60 acres near downtown Albuquerque, and the 42-acre Joseph M. Montoya Campus is in the Northeast Heights. Classrooms, libraries and laboratories are modern and comfortable. Each student has access to state-of-the-art equipment, especially computers.

Advisory committees from local businesses help assure that T-VI students acquire the skills needed for success on the job, and T-VI helps graduates find jobs. T-VI also cooperates with other two- and four-year schools on course articulation and student transfer.

Funding for T-VI programs and most construction and equipment comes from a local property tax and an annual appropriation by the New Mexico Legislature. Tuition and fees are moderate, and financial aid is available to many students.

T-VI programs, facilities and services are accessible to the handicapped.

School Year: T-VI meets year-round with the year divided into three full terms of 15 or 16 weeks: fall, winter and summer. Short sessions also are held in the summer. Breaks between terms range from 10 days to two weeks.

Most programs admit new students at the beginning of each term: in January, May and September.

Under extreme weather conditions T-VI may close or operate on an abbreviated schedule, with classes beginning at 10:30 a.m. (earlier classes are canceled). Information will be announced on local radio stations.





MISSION STATEMENT

The Albuquerque Technical-Vocational Institute provides opportunities for postsecondary occupational education and coursework leading to certificates and degrees Associate in Applied Science, Associate in Arts and Associate in Science; and for transfer of academic credit to other degree-granting institutions.

The Institute defines and analyzes work force needs of the nation, state and communities of New Mexico in determining as offerings. Using this information, the Institute plans and provides an occupational curriculum to enable each student to gain definable job skills within each person's capability.

In addition to education focused on occupational requirements, the Institute provides basic and general education to strengthen and expand intellectual foundations, preparing students to appreciate and perform productively within modern society as well as the world of work.

ACCREDITATION

T-VI is accredited to grant certificates, diplomas, Associate in Applied Science, Associate in Liberal Arts and Associate in Science degrees by the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools.

In addition, specific programs have accreditation or approval by appropriate agencies.

The Practical Nurse and Associate Degree In Nursing programs are accredited by the National League for Nursing, and the Respiratory Therapy Technician and Medical Laboratory Technician programs by the American Medical Association's Committee on Allied Health Education and Accreditation.

The Truck Driving program is accredited by the Professional Truck Driver Institute of America, Inc.

EQUAL OPPORTUNITY POLICY

The Albuquerque Technical-Vocational Institute, in compliance with Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972 and Section 504 of the Rehabilitation Act of 1973, does not discriminate on the basis of sex, race, color, national origin, creed, religion, age or physical or learning handicap in any of its policies, practices or procedures. The provision includes, but is not limited to, admissions, testing, employment, financial aid and educational services.

Any person who wants to file a complaint based on these laws should contact the T-VI equal opportunity officer, Ruth Tangman, M Building, Main Campus, 525 Buena Vista SE, 768-0480.

AAS ministration ministration, AAS ministration, AAS ministration, AAS sant Studies, AAS tudies, AAS CCUPATIONS Clerk citical Nurse Refresher Technician, AS stant se herapy Technician	BUSINESS OCCUPATIONS
	TOTAL GRADUATES
1	Could not locate
17 17 17 17 17 17 17 17 17 17 17 17 17 1	Not seeking employment
000 01 01 14 1 - 21 202	Continuing school
32 32 32 32 32 44 47 33 32 33 32 33 32 33 33 34 34 35 36 37 37 37 37 37 37 37 37 37 37 37 37 37	AVAILABLE FOR WORK
157 157 157 157 157 157 157 157 157 157	Employed in training- related job
1 2 3 5 1 1 2 3 2 5 80 1	Unemployed but seeking
86% 75% 100% 100% 100% 85% 86% 100% 100% 100% 100%	Percent employed (training-related job: graduates available for work)
24 24 24 24 24 25 27 27 27 27 27 27 27 27 27 27 27 27 27	Working in New Mexico
	Working out-of-state
5.92 6.62 7.48 4.07 8.39 5.86 6.48 6.42 5.85 8.23 8.23 8.87 11.86 5.57 5.62 7.12	Average hourly rate in training-related jobs
\$12,307 \$13,777 \$13,777 \$15,569 \$8,459 \$17,445 \$12,181 \$13,482 \$13,361 \$12,162 \$17,126 \$17,126 \$18,449 \$24,676 \$11,587 \$11,587 \$11,589 \$14,805	Average annual salary in training-related jobs based on 40-hour work week

Graduate Job Placement, 19901

TECHNOLOGIES Architectural Drafting Technology 15 Civil and Surveying Technology 6 Data Processing Technology 29 Design Drafting Engineering Tech., AAS 8 Electromechanical Drafting, AAS ² 2 Electronics Engineering Technology, AAS 8 Electronics Technology 23 Electronics Technology, AAS 7 Instrumentation and Control Technology 20 Instrumentation and Control Technology 30 Laser Electro-Optic Technology 3 Laser Electro-Optic Technology, AAS 4	1 - 1 - 2 1 3 2	3 1 4 3 — 5 2 3 2	1 - 1 3 - - 3 2 3 - -	12 4 25 4 2 8 16 4 14 12 3	9 1 13 4 2 8 11 3 8 11	3 3 12 — — 5 1 6 1 2	75% 25% 52% 100% 100% 100% 69% 57% 92% 33% 100%	8 I 13 4 2 7 II 3 7 II 1 4	1	6.34 	\$13,184
TRADES A/C, Heating and Refrigeration 15 Automotive Body Repair 6 Automotive Technology 7 Baking 13 Carpentry 18 Commercial Printing 6		2 3 8 7	- 1 2 7 1	15 4 4 4 10 4	15 4 4 4 9 2		100% 100% 100% 100% 90% 50%	14 4 4 3 9	1 - 1	6.37 4.31 4.67 6.61 5.08 4.43	\$18,595 \$13,256 \$8,970 \$9,707 \$13,749 \$10,575 \$ 9,225
Criminal Justice 4 Criminal Justice, AAS 6 Diesel Mechanics 9 Electrical Trades 13 Fire Science 1 Fire Science, AAS 1 Machine Tool Technology 20 Plumbing 10 Quantity Food Preparation 13 Truck Driving³ 26 Welding 11	1 1 1	2 2 1 1 7 5 3 3	1 1 3 3	1 3 6 12 	1 3 6 12 1 16 3 8 21 7		100% 100% 100% 100% 100% 100% 100% 100%	1 3 6 12 — 1 16 3 8 7 6		5.82- 6.20 6.35 4.50 4.31 6.43	\$12,099 \$12,899 \$13,202 \$ 9,360 \$ 8,961 \$13,372

Winter and summer 1990 terms only; fall 1990 term figures available on request.

Not offered as separate program. Past graduates may return to complete degree.

Compensation based on miles driven; cannot compute hourly or annual rate as in other programs.

NOTE: Information about T-VI's retention rates is available from the Student Services Office upon request.

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Admission

Admission is the process of applying and being accepted to T-VI. Registration (see page 12) is the process of selecting courses, receiving a schedule of classes and completing enrollment at T-VI.

The Albuquerque Technical-Vocational Institute has an open admission policy which provides all interested individuals the opportunity to enroll in the Institute's certificate or degree programs as well as individual courses. Students are considered for admission to T-VI without regard to gender, race, color, religion, creed, national origin, age or disability.

Students may enter T-VI for any term but are urged to apply for admission at least two months before the registration date for that given term.

Most full-time students attend school year-round until they finish their programs. In most programs, it is possible to take a term off, if necessary. However, persons who interrupt their programs may not be able to resume their studies at the time they want, because the classes they need may not be offered every term.

GENERAL ADMISSION REQUIREMENTS: Any person wishing to apply for admission to T-VI must meet one of the following criteria:

- —Be at least 18 years of age; or
- —Have the General Education Development (GED) diploma or the equivalency certificate; or
 - —Have completed high school; or
- —Be excused from attending a secondary school under New Mexico's compulsory attendance law; or
 - —Qualify under Concurrent Enrollment.

Note: Many Trades & Service Occupations and Health Occupations programs have special admission requirements.

ADMISSION CATEGORIES: A student's admission category is determined by the student's primary goal for taking courses at T-VI. The categories are:

• Certificate/Degree Status: Certificate/degree students are those who have chosen a program of study and intend to earn a certificate or degree from T-VI.

• Non-Degree Status: Those who do not wish to earn a degree or certificate or have not yet chosen a major (certificate or degree program) are non-degree students. Students who enter the Institute in non-degree status may apply to change to certificate/degree status and to transfer credits earned in non-degree status by completing a Change of Major form.

Note: Non-degree status will not satisfy eligibility requirements for financial aid, veteran's educational benefits or other assistance.

• Concurrent Enrollment: Qualified high school juniors and seniors can enroll in vocational and academic courses offered by T-VI. Admission for concurrent enrollment is in non-degree status and does not mean admission to a certificate and/or degree program at T-VI. Credits earned as a non-degree student may be applied toward a certificate and/or degree only after the student has been fully accepted into a program at T-VI. Information regarding the Concurrent Enrollment program and specific admission requirements is available at the Admissions Office at either T-VI campus and from the student's high school counselor or vocational coordinator.

Applying to T-VI

Prospective students who meet the general admission requirements should complete the following:

NEW STUDENT: An applicant who has never attended T-VI in certificate/degree or non-degree status:

1. Application for Admission

- a. Complete a T-VI Application for Admission form, available from the Admissions Office in Jeannette Stromberg Hall at the Main Campus and Tom Wiley Hall at the Montoya Campus. These offices are open Monday through Thursday, 8 a.m. to 6:30 p.m., and Friday 8 a.m. to 5 p.m. (Hours may vary during peak registration periods.)
- b. Return the application to the Admissions Office at Main or Montoya Campus. (Students interested in a Health Occupations program must apply at the Main Campus.) The application may be mailed 30 days before the term begins; after that, it must be hand delivered to the Admissions Office.

2. Advisement and Counseling

Admissions advisors and counselors are available to assist applicants with identifying and/or meeting their educational goals. Advisement and counseling services are also available for continuing students. Counselors are available in each of the instructional departments. Students are encouraged to consult with their department counselor for assistance.

3. Program and Course Placement

a. High School/GED Requirement: Students who have not earned a high school diploma and are interested in entering a certificate or degree program may be required to take the ASSET exam. The results of this exam may affect the student's eligibility to enter his/her chosen program.

- b. Health Requirement: An applicant will be discouraged from entering a program where chances of success are poor because of a health or physical condition. An applicant can be denied admission to a program where health or physical condition can be dangerous to the applicant or others. In such cases, the admissions counselor or advisor will help the applicant select another program.
- c. Program and/or Course Requirements: Students may be required to take placement advisement tests, complete appropriate tests for a program and/or complete course prerequisites (requirements for enrollment in a course). Students who have completed course prerequisites will be required to provide proof through transcripts or test scores. Students are strongly encouraged to take the ACT prior to enrolling at T-VI. The Institute has established the following cutoff scores for the ACT:

Test Taken Prior to November 1989	Test Taken After November 1989
English17	English 19
Math 12	Math 16
Social Sciences14	Reading 18
Natural Sciences	Scientific Reasoning 19
Composite	Composite

ACT and SAT scores may not be more than five years old. Placement advisement test scores may not be more than one year old.

d. Preparatory Course Placement: Preparatory courses are available to students needing and/or wanting preparatory work to help them meet course and program requirements (see page 41).

Returning Student: A returning student (any student who has previously attended T-VI in certificate/degree or non-degree status and has been out for at least one term, summer term excluded) must visit the Admissions Office to update his/her status. Students who have been absent for more than one year or students who have attended other colleges or universities while absent from T-VI will be required to complete a new admissions application.

TRANSFER OF CREDIT: Credits earned at other institutions by certificate or degree-seeking students at T-VI may be transferred and applied toward program requirements in accordance with the following guidelines:

- —An official transcript from each institution must be sent directly to the T-VI Records Office for transfer credit evaluation.
- —Credit for arts and sciences courses earned at regionally accredited post-secondary institutions will be evaluated automatically upon receipt of the official transcript. Courses with D or better grades earned at New Mexico institutions will be considered for transfer credit; courses from institutions outside New Mexico must have C or better grades to be considered for transfer credit.
- —Credit for occupational courses earned at any post-secondary institution will be evaluated by the department which offers the course(s) and/or program. Courses must be completed with C or better grades to be considered for transfer credit. The

student must request that T-VI's Records Office refer the transcript(s) to the department for review. An interview or demonstration of competence or both may be required before the decision regarding credit is made. Courses will be evaluated according to the technical program being followed at T-VI and may be substituted for T-VI requirements as approved by the department dean.

—Remedial courses and upper-division courses are not generally accepted in transfer.

Non-Traditional Credit: Students may be allowed to establish credit based on the successful completion of specialized examinations or prior training. Specific criteria for acceptance of occupational credit have been established by each instructional department. Students interested in this option should contact their department counseling office.

Continuing Education Credit: Current students who completed credit courses in T-VI's Continuing Education Division prior to the winter 1991 term may apply to have that credit transferred to their T-VI transcript. Interested students must request, through the Records Office, that an official copy of their Continuing Education record be sent to the department in which the course is offered. The student should contact the department counseling office to initiate the transfer process.

(Also see Business Occupations, various advanced placement options in Health Occupations, and Electronics Engineering Technology.)

Credit by Examination

Students may earn a maximum of 30 credit hours toward Arts & Sciences requirements through the following:

- 1) Advanced Placement (AP)
- 2) College Level Examination Program (CLEP)
- 3) T-VI Challenge Exams
- 4) Correspondence Courses

AP and CLEP exams and scores are as follows:

1) Advanced Placement

T-VI Course		AP		Minimum Score	
ART	101	Art History		4	3
BIQ	121L/122L	Biology	1	3	8
CHEM	121L/122L	Chemistry		3	8
CSCI		Computer Science	!	4	4
ENG	101 & 102	English Language & Co	mposition	3	6
ENG	101 & 102	English Literature & Co		3	6

FREN	101 & 102	French Language		
	and			
FREN	201 & 202	French Language	3	12
FREN	101 & 102	French Literature		
	and			
FREN	201 & 202	French Literature	3	12
HIST	101 & 102	European History	4	6
HIST	161 & 162	American History	4	6
MATH	162	Calculus AB	3	4
MATH	162 & 163	Calculus BC	3	8
PHYS	151/153L	Physics B	4	4
PHYS	160/163L	Physics C	4	4
SPAN	101 & 102	Spanish Language	3	6
1	and			
SPAN	201 & 202	Spanish Language	4	12

2) College Level Examination Program

		Minimum	
T-VI Course	CLEP	Score	<u>Cr</u>
CHEM 121L/122L	General Chemistry	52	3
ECON 200	Introduction to Macroeconomics	55	3
ECON 201	Introduction to Microeconomics	55	3
ENG 101	Freshman English*	51	3
ENG 102	College Composition*	57	3
ENG 150	Analysis & Interpretation of Literature*	55	3
ENG 296	American Literature*	50	3
FREN 101	College French	40	3
FREN 101 & 102	College French	45	6
HIST 101 & 102	Western Civilization I & II	50	3
MATH 121	College Algebra	56	3
MATH 123	Trigonometry	61	2
MATH 162	Calculus with Elementary Functions*	60	4
PSCI 200	American Government	55	3
PSY 105	General Psychology	50	3
PSY 220	Human Growth & Development	52	3
SOC 101	Introduction to Sociology	52	3
SPAN 101	College Spanish	40	3
SPAN 101 & 102	College Spanish	45	6
SPAN 101, 102,	College Spanish	54	12
201 & 202	-		

^{*}Both the objective and essay or problem portions must be completed.

Scores on CLEP and AP must be forwarded to the T-VI Records Office. Scores are considered official if they are:

[—]Sent directly from the Testing Center, or are
—Original scores forwarded to the student, or are

-AP scores included on high school or college transcripts as part of the student's

permanent record.

The student's T-VI transcript will reflect a grade of TR (credit) for those courses with acceptable CLEP or AP scores. The transcript also will show the credits were obtained by examination. TR grades are not computed in the student's GPA. Credits count toward graduation but not the residercy requirement.

3) Challenge Exams

The Arts & Sciences Department has developed challenge examinations for some of its courses. Exams are scheduled during the last week of each term.

Courses that may be challenged are:

BIO 121L Principles of Biology I BIO 122L Principles of Biology II

BIO 123 Biology for Health Sciences and

BIO 124L Biology for Health Sciences Lab

(must be challenged together)

BIO 237 Anatomy and Physiology I (lecture) and

BIO 247L Anatomy and Physiology I (lab)

(must be challenged together)

BIO 238 Anatomy and Physiology II (lecture) and

BIO 248L Anatomy and Physiology II [lab]

(must be challenged together)

CSCI 101 Computer Literacy

NUTR 125 Nutrition

To challenge a course, a student must:

 Obtain a Challenge Exam form from an admissions advisor or a department counselor. Approval will be given only after the counselor or admissions advisor checks for restrictions listed below.

• Pay a \$10 per-credit-hour fee at the Cashier's Office.

• Submit the form and schedule the exam through the Arts & Sciences Office.

Present a picture I.D. at exam site.

The following restrictions apply:

A student may attempt a challenge only once per course.

 A student may not use the challenge exam to improve a previously recorded grade, and may not take the exam if previously enrolled in the course beyond the second week of a term at any post-secondary institution.

• A student's transcript will reflect a grade of TR (credit) for those courses successfully challenged. TR grades are not computed in the student's GPA. Courses successfully challenged may count toward graduation but not the residency require-

• Challenge exam credit might not be accepted by other post-secondary institutions.

4) Correspondence Courses

Credit for Arts & Sciences courses may be granted for a maximum of three courses completed by correspondence through a regionally accredited institution.

<u>Registration</u>

Students are required to register for each term in which they plan to enroll. Registration and payment of fees must be made in accordance with the instructions published in the schedule of classes.

Registration begins approximately one month before the start of a term. Late registration is held only through the fifth day of the term for full-term classes and through the third day for courses of less than a full-term duration.

Schedule of Classes: A class schedule is published each term. Starting and ending dates, meeting times and locations are listed in the schedule, which is available in the admissions and department counseling offices.

Course Load: The normal course load each term is 12 to 18 credit hours, 12 constituting a full load. Students wishing to take more than 18 credit hours must meet the following conditions:

- -Have a cumulative T-VI grade point average of 2.5;
- -Have no grade lower than C in the previous term; and
- —Secure the written permission of the department dean (non-degree students must secure permission from the dean of Arts & Sciences).

No student may take more than 22 credit hours per term.

Prerequisite Courses: Before a student may enroll for credit or audit in a course which has prerequisites, the prerequisite courses must be completed satisfactorily. A student may be disenrolled if the prerequisites have not been met.

Permission of Instructor: Students may enroll in some courses only by permission of the instructor. Forms are available from the Admissions Office at either campus, department deans' offices and department counseling offices. Permission of an instructor to enroll does not constitute a waiver of a course nor does it grant credit for another course.

Auditing Courses: Students may enroll in any occupational or Arts & Sciences course for audit only if they have met the prerequisite(s) for the course. Students may not enroll in Developmental Studies courses for audit. Students who enroll for audit are expected to attend all class sessions but have no responsibilities for completing assignments and consequently receive neither grade nor credit.

CHANGES IN ENROLLMENT

Adding Courses: Students may enter Developmental Studies math courses until midterm. All other T-VI courses may be added or sections changed only through the fifth day of full-term classes and the third day of classes which are less than a full term in duration.

Auditing Courses: Changes from audit to credit must be made by the fifth day of a full term or the third day of a short session. Changes from credit to audit must be made by midterm of a full term or the fourth week of classes which are less than a full term in duration.

Cancellation of Enrollment Before the Term Begins: If a student is not able to attend T-VI when planned but has registered for classes, the student must cancel registration at the Records Office on the Main Campus before the beginning of the term. All fees, except for the non-refundable registration fee, will be returned if registration is canceled before classes begin.

Dropping Courses or Withdrawing: Students wishing to drop a course or withdraw from T-VI must do so by completing an official form. Drop and Withdrawal

forms are available from department counseling offices.

Courses dropped on or before the 15th day of the term (including Saturdays) do not appear on an official T-VI transcript. A grade of W will appear on the student's record for a class dropped after the 15th day. Full-term courses may not be dropped after Friday of the 10th week of the term; courses of less than a full term duration cannot be dropped after Friday of the fourth week.

Students are ultimately responsible for initiating a course drop. However, students may be dropped from some classes for non-attendance (see page 28). Students who are not officially dropped from a course and not in attendance at the time of final

exams will receive a final grade in the course.

"Stepbacks": Students may "step back" into a Developmental Studies course in the same discipline) through the third week of the term. A student who is having difficulty in a class and is considering this option should contact a department counselor. Midterm grades will not be processed for students who enter Developmental Studies classes after the fifth week of the term.

Change of Major: Students may change their major (program) at any time during the term. All changes submitted prior to midterm will be effective for that term;

changes submitted after midterm will be effective in the next term.



Expenses

The budgets below are estimated expenses for tuition, food, housing, transportation, school and personal expenses for full-time students at T-VI in 1991–92. The Financial Aid Office uses these figures to calculate the amount of financial aid a student will receive.

For Students Without Rent/Mortgage Expenses

	1 Term	2 Terms	3 Terms
Tuition, Fees	147	295	442
Room, Board	762	1,524	2,286
Books, Supplies	179	358	537
Personal Expenses	592	1,183	1,775
Transportation	453	906	1,359
Total	\$2,133	\$4,266	\$6,399
Non-resident Total	\$2,735	\$5,469	\$8,204

For Students With Rent/Mortgage Expenses

Tuition, Fees Room, Board Books, Supplies Personal Expenses Transportation	1 Term 147 2,332 179 592 463	2 Terms 295 4,663 358 1,183 ^925	3 Terms 442 6,995 537 1,775
Total	\$3,713	\$7,424	1,388 \$11,137
Non-resident Total	\$4,314	\$8,628	\$12,942

Note: These figures are estimates and are subject to change without notice.

New Mexico Residency

A student is classified as a resident or non-resident for tuition purposes based on information supplied at the time of admission br readmission. A continuing student's residency classification may be changed upon submission of a petition for New Mexico residency. Non-resident students who believe they have satisfied requirements for establishing New Mexico residently may file a petition in the Records Office at either campus. Residency petitions will be accepted through the 15th day of each term (including Saturdays). No petitions will be approved unless all requirements for residency are met before the first day of the term. To become a legal resident of New Mexico, four basic requirements must be satisfied:

The 12-Month Consecutive Residence Requirement: a student must physically reside in New Mexico for the 12 consecutive months immediately preceding the term for which the petition is submitted.

Note: Students whose parents or guardians reside out of state cannot begin to

complete the 12-month requirement until their 19th birthday.

The Financial Independence Requirement: Students cannot be approved for residency if they are financially dependent on their parents or legal guardians who are non-residents of New Mexico. At the time the student applies for residency (if under 23 years of age), a copy of his or her parents' or guardians' 1040 or 1040A U.S. income tax form for the previous year may be required.

The Written Declaration of Intent Requirement: The student must sign a written declaration of intent to relinquish residency in another state and establish it in New Mexico.

The Overt Act Requirement: Residency regulations require the completion of several overt acts which support the student's declaration of intent to become a permanent resident. Examples of such acts are securing a New Mexico driver's license or automobile registration and registering to vote in New Mexico.

Note: Any act considered inconsistent with being a New Mexico resident—such as voting, securing and/or maintaining a driver's license and automobile registration in another state—will cause the request to be denied.

OTHER RESIDENCY REGULATIONS: Persons and their dependents who move to New Mexico to work full-time, practice a profession or conduct a business full-time (and who provide appropriate evidence) are not required to complete the 12-month residence requirement before applying for resident status. They must, however, satisfy the other requirements of residency.

Members of the armed forces stationed on active duty in New Mexico, their spouses and dependents are eligible for resident student rates. A certification form

is required for all new and returning students

Non-citizens who are lawfully in the United States and have obtained permanent status from the INS or non-citizens who serve on active duty in the armed forces of the United States may establish residency by meeting the durational and intent requirements. Any non-citizens on other visas (student, diplomatic, visitor or visiting scholar visa, including spouses and dependents) are non-residents for tuition purposes.

Persons, their spouses and dependents who move to New Mexico for retirement and who provide evidence of formal retirement shall not be required to complete the 12-month durational requirement. They must, however, satisfy the other requirements of residency.

An individual married to a legal resident of New Mexico who provides evidence of marriage shall not be required to complete the 12-month durational requirement but must satisfy all other requirements.

All enrolled members of the Navajo Tribe who reside on the Navajo Reservation, as certified by the Navajo Department of Higher Education, will be assessed instate tuition rates.

A brochure explaining all requirements for establishing New Mexico residency for tuition purposes is available in the Records Office or from any admissions counselor.



Tuition and Fees

Tuition is charged according to a student's residence and the number of credit hours carried. Some course have required fees. Audit students pay the same fees as students enrolled for credit.

Upon registering for courses, students receive a registration invoice. In order to complete registration, all charges must be paid. Full tuition and fees are required for courses added after the beginning of the term. Payment deadlines are printed in the schedule of classes each term. Failure to pay all charges in full will result in the deletion of unpaid courses from the schedule.

Authorized agencies that have agreed to pay a student's training expenses are

billed by the Institute.

Registration Fee: There is a \$20 registration processing fee required each term.

Tuition:	Resid	lent	Non-Resident
Arts & Sciences Courses 1 to 11 credit hours and more than 18 credit hours	\$23 per cr	edit hour	\$64 per credit hour
12 to 18 credit hours	\$27	6 ,	\$768
More than 18 credit hours	\$23 per cr	edit hour	\$64 per credit hour
Occupational Courses 1 to 11 credit hours	noı	te	\$64 per credit hour
12 to 18 credit hours	non	te	\$768
More than 18 credit hours	not	re	\$64 per credit hour

Tuition rates and structure are subject to change without notice.

Books: Students must purchase their own textbooks for Arts & Sciences courses, some associate degree programs, Practical Nursing, Criminal Justice, Fire Science, Food Service Management and Environmental Protection Technology, as well as evening and elective classes for all Trades & Service Occupations.

Books are loaned free to students in developmental and many occupational classes but must be paid for if lost or damaged. Students must pay a \$25 textbook deposit when they register for classes. The deposit is refunded if the student returns all textbooks in good condition and applies for the refund within one year. Cost of lost or damaged books is deducted from the deposit, and the student is required to redeposit the \$25 before registering for another term.

Late Graduation Fee: A \$20 late graduation fee will be charged to students who do not submit an Application for Graduation by the established deadline or who do not submit an application for the term in which graduation requirements are completed.

Course Fees

Many T-VI programs require students to buy personal equipment, such as uniforms in Health Occupations and tool kits in Trades & Service Occupations and Technologies. The equipment is issued early in the program and becomes the student's personal property.

Several programs charge a supply fee to cover the cost of expendable items provided by T-VI. Lab fees also are charged for some Arts & Sciences and Health Occupations classes. Equipment, supply and lab fees for 1991–1992 are:

Arts &	& Scien	ces	Business	Оссир	ations
BIO	IIIL	\$20	ACCT	101L	\$35
BIO	115L	\$20	ACCT	102L	\$35
BIO	121L	\$20	ACCT	254L	\$15
BIO	122L	\$20	ACCT	255L	\$15
BIO	124L	\$20	BA	150L	\$15
BIO	139L	\$20	BA	255L	\$15
BIO	200L	\$20	CR	203L	\$40
BIO	223L	\$20	CR	250	\$40
BIO	224L	\$20	SS	10 I A	\$15
BIO	231L	\$20	SS	101B	\$15
BIO	239L	\$20	SS	,1101	\$20
BIO	247L	\$20	SS	102L	\$20
BIO	248L	\$20	SS	111	\$ 5
BIO	260L	\$20	SS	132	\$ 5
CHEM	112L	\$20	SS	133	\$ 5
CHEM	121L	\$20	SS	201L	\$15
CHEM	122L	\$20	SS	207L	\$20
CHEM	131L	\$20	SS	230	\$ 5
PHYS	153L	\$20	SS	250	\$15
PHYS	154L	\$20			
PHYS	163L	\$20			

Health Occupations

Practical Nurse	\$83	Registered Nurse Refresher	\$20
Associate Degree Nurse	(first term) \$83	Health Unit Clerk	\$30
-	then \$10	Medical Lab Technician	\$50
Advanced Placement	\$10	each lab o	course \$15
Respiratory Therapist	\$75	Nursing Assistant	\$33
Respiratory Therapy Tech.	. \$75	Perioperative Program	\$25
Cardiac Monitor	\$10	Phiebotomy	\$45
LPN Refresher	\$20	Emergency Medical Tech.	\$35;
Nursing Clerk Assistant	\$30		\$15

Technologies

	_	
ARDR	101	\$15
ARDR	105A	\$15
ARDR	105B	\$15
ARDR	105L	\$15
ARDR	106L	\$15
ARDR	118L	\$15
ARDR	207L	\$15
ARDR	218L	\$15
ARDR	295	\$15
DDET	106L	\$15
DDET	114L	\$15
DDET	115L	\$15
CP	101A	\$10
CP	101L	\$10
CP	111A	\$10
CP	111 L	\$10
CP	174L	\$10
CP	175L	\$10
CP	176L	\$10
CP	270L	\$10
CP	271L	\$10
CP	273L	\$10
CP	276	\$10
ELL,	113L	\$15
ELEC	103A	\$15
ELEC	103L	\$15
ELEC	116L	\$10
ELEC	204L	\$10

Trades & Service Occupations

_ 1	
ACHR 103L or 104L ACHR 114L or 115L	\$9 5
ACHR 114L or 115L	\$74
ACUD 2011	\$74
AUDÓ 1041 1051 1061	\$105
107L or 108L AUBO 114L, 115L, 116L or	
AURO 114L, 115L, 116L or	\$79
117L	
ATTRO 2021 2041 2051.	\$53
205L, 204L, 205L, 206L or 207L AUTC 103L, 104L or 105L AUTC 114L or 115L AUTC 201L	
AUTC 103L, 104L or 105L	\$105
AUTC 114L or 115L	\$95
AUTC 201L	\$95
BKNG 104L, 105L, 106L or	\$105
107L	
BKNG 113L, 114L, 115L,	\$32
CARP 104L or 105L	\$105
CARP 1111.	\$74
CMPR 104L, 105L, 106L or	\$32
107L	
107L DIME 104L, 105L or 106L DIME 111L DIME 201L	\$105
DIME HIL	\$137
DIME 201L	\$137
101 TD 1051 of 1061.	3103
ELTR 115L or 116L ELTR 204L, 205L or 206L ELTR 211L	\$90
ELTR : 204L, 205L or 206L	\$53
ELTR 211L	\$53
MATT 105L, 106L or 107L	2103
L	EO1
MATT 201L	\$74
PLMB 103L	\$105
MATT 111L MATT 201L PLMB 103L PLMB 111L QUFD 104L, 105L, 106L or	\$74
OUFD, 104L, 105L, 106L or	\$105
107L	
OUFD 113L, 114L, 115L,	\$84
SCSE 104L, 105L or 106L SCSE 111L	\$105
SCSE 111L	\$100
SCSE 201L	233
TRDR 104L	\$105
SCSE 201L TRDR 104L WELD, 105L or 106L	\$105

REFUNDS

Registration Fee: The registration fee is a processing charge and is refundable only if T-VI cancels all classes in which a student has registered.

Tuition: Tuition is refundable only if T-VI cancels a class or if the student withdraws before the 10th day of classes. Tuition refunds after the term begins are pro-rated as follows:

Withdrawal prior to the start of the term	1000
midiawai uujilig jije first five days of the term	000
Withdrawal during the second five days of the term.	80%

Fees: Supply and lab fees are not refundable after the term begins. Equipment fees are not refundable after equipment is issued.



Financial Aid

Although primary responsibility for educational costs rests with the student and his or her family, T-VI is dedicated to providing each student with a quality education. The U.S. government, the state of New Mexico and T-VI all contribute money to help students pursue a higher education.

A student does not have to be accepted for admission to T-VI before he or she can apply for financial aid. Students are encouraged to apply as early as possible,

since processing may take up to 10 weeks.

Financial aid applications are available at T-VI's two financial aid offices. One is located in Jeannette Stromberg Hall on the Main Campus and is open 8 a.m. to 5 p.m. Monday through Friday. The other is located in Student Services, Tom Wiley Hall, on the Joseph M. Montoya Campus and s open from 8 a.m. to 5 p.m. Monday through Friday. Advisors are available at both offices to assist students in filling out applications.

Students at T-VI can receive aid through grants, loans, work study and other programs, most of which are based on financial need. Students may receive aid

through one of these programs or a combination of them.

Transfer students applying for financial aid must provide financial aid transcripts from every post-secondary school they have previously attended, even though they may not have received any financial aid.

Students should refer to the T-VI Student Financial Aid Guide, available at both

campuses, for detailed information.

Students applying for the following programs must complete an Application for Federal Student Aid (AFSA) or a Financial Aid Form (FAF). A student must demonstrate financial need to receive aid from the grants, loans and other programs listed below. The need of each student is determined by a needs analysis based on the information the student provided on the AFSA or FAF.

Most checks are distributed through the Cashier's Office between 8 a.m. and 4:30 p.m. Monday through Friday. Loan recipients who are repeat borrowers and those students receiving a second or third dispursement are generally paid on the 11th day of class. First-time borrowers receiving their first disbursement are paid 30 days after classes begin; otherwise, loan checks will arrive four to six weeks after a student has submitted an application.

Pell Grant: This program provides federal grants, or gift aid, to undergraduate students. To be eligible for a Pell Grant a student must be a U.S. citizen or an eligible non-citizen and be enrolled in an eligible program. The student cannot have a bachelor's degree.

Pell Grant awards currently range from \$200 to \$2,300 per year, depending on a student's enrollment status and Pell Grant Index.

Students may pick up their Pell Grant checks on the last class day of the first month of each term. Supplemental distributions are scheduled on the last class day of each month for students whose Pell file was not complete for the regular distribution date.

Supplemental Educational Opportunity Grant (SEOG): SEOG provides federal grants to needy students to help pay for their post-secondary education. This federal money is limited and available only to students with exceptional financial need. Students with exceptional financial need are those who receive a Pell Grant, who have the lowest expected family contribution and who have unmet financial need.

SEOG awards at T-VI range between \$100 and \$300 a year, and the checks are usually distributed in the middle of each term.

New Mexico Student Incentive Grant (NMSIG or SSIG): New Mexico residents who are full-time students, have received a Pell Grant and have the highest unmet financial need are eligible for SSIG awards. If funds are available, part-time students may also be eligible. Awards at T-VI range from \$250 to \$750 per year. Checks are generally distributed in the middle of the term.

Stafford Loan (formerly GSL): Since loan eligibility is based on need, students must apply for a Pell Grant before filling out a Stafford Loan application. Students must be enrolled at least half time in an eligible program and they must maintain satisfactory academic progress to receive a Stafford Loan.

Students may borrow up to \$2,625 per year, but they will not receive the full amount of their Stafford Loan until one half of their loan term has expired. A list of participating lenders is available at the Financial Aid Office.

The current interest rate is 8 percent. Students must begin to repay the loan when they leave school or when they drop below half-time status. The minimum monthly payment is \$50 per month.

Supplemental Loans for Students (SLS): Since loan eligibility is based on need, students must apply for a Pell Grant and Stafford Loan before applying for an SLS. Only self-supporting students can apply for an SLS and only after they have exhausted all other resources.

To apply for an SLS students must have either a high school diploma or GED (General Educational Development) certificate. Therefore, students admitted under ability to benefit are not eligible to receive an SLS.

All first disbursements of SLS loans are made 30 days after the term begins. All second or third disbursements of SLS loans are generally on the 11th day of class.

Students enrolled in a program three terms or longer may borrow up to \$4,000 per academic year. A student enrolled in a two-term program may only borrow up to \$2,500. Students enrolled in a one-term program may only borrow up to \$1,500.

Parent Loans for Undergraduate Students (PLUS): Students must apply for a Pell Grant and a Stafford Loan before their parents can apply for PLUS. PLUS is designed to help the parents of dependent students who need additional funding after a student has exhausted all other resources. PLUS loans are generally disbursed on the 11th day of class.

New Mexico Nursing Student Loan (NMNSL): New Mexico residents preparing for a licensed practical nurse certificate or an associate degree in nursing may apply for a New Mexico Nursing Studen Loan. The most a student can borrow is \$2,500 per year. Loan recipients must agree to repay the loan with service in an underserved area in New Mexico. NMNSL loans are generally disbursed on the 11th day of class.

Perkins Loan: T-VI does not participate in the Perkins Loan Program.

College Work Study (CWS): College Work Study helps needy, eligible students with jobs at T-VI. The student employee may work up to 40 hours per two-week pay period. CWS students are paid \$4.50 per hour. Students with an associate degree or 60 credit hours of college course work may be eligible for higher pay.

New Mexico Work Study (NMWS): This program helps students pay for their education by providing jobs at the Institute. An eligible student does not have to show financial need to participate in the program. The student employee may work up to 40 hours per two-week pay period. New Mexico Work Study students are paid \$4.50 per hour. Students with an associate degree or 60 credit hours of college course work may be eligible for higher pay.

T-VI Work Study: To participate in this program an eligible student does not have to show financial need. The student must be enrolled at least half time and have at least a 2.0 grade point average. Students may work up to 40 hours per twoweek pay period, and they are paid \$4.50 per hour. Students with an associate degree or 60 credit hours of college course work may be eligible for higher pay.

Students interested in receiving financial aid from the following programs must

apply directly with the agency.

Veterans Administration: The Veterans Administration approves most full-time programs at T-VI. Students planning to apply for VA benefits must have their class schedule approved and their enrollment certified by a T-VI VA representative. Students who fail to complete a course during a term in which they have received VA benefits must repay the full amount unless they can prove mitigating circumstances.

Veterans transferring from other institutions of higher learning must provide official academic transcripts from every post-secondary school they have previously attended.

Information on eligibility is available at any Veterans Administration office. The Albuquerque office is located at 500 Gold SW (766-3361).

New Mexico Division of Vocational Rehabilitation (DVR): Disabled persons may be eligible for education and training benefits from DVR. The Albuquerque offices include: 11811 Menaul NE, 87112, 841-4560; 3311 Candelaria NE, 87107, 841-8800; 2929 Coors NW, Suite 102, 87120, 841-8752.

Job Training Partnership Act: This agency helps students with education and training if they are unemployed, underemployed, or economically disadvantaged. Students should contact the New Mexico Employment Security Department at 841-9362, or the Albuquerque Job Corps Center at 842-6500, or Work Unlimited at 768-6060 for information on eligibility. Native Americans should contact the National Indian Youth Council (NIYC) Employment and Training Project at 247-2251 or their tribal offices for the same information.

Stay in School: Stay in School is a federal program designed to help needy students pay for their education by placing them in government jobs. Most of the jobs are located at Kirtland Air Force Base or the U.S. Forest Service. The student may work up to 20 hours per week, and the pay depends on the job assignment. Many positions pay more than minimum wage.

Eligible students must be at least 16 years old, prove economic hardship and enroll in an eligible program consisting of at least 15 clock hours of instruction per week. Interested students may pick up application information from the Financial Aid Office at either campus.

Standards for Satisfactory Academic Progress for Financial Aid Purposes

Academic transcripts are reviewed each term. All terms of attendance, including periods when students did not receive financial aid, are reviewed. Students are placed on financial aid probation or suspension if they do not meet the following standards:

1. Qualitative Progress—Maintain a cumulative grade point average of at least 2.0 (a C average). Grade point values for financial aid eligibility are: A=4.0, B=3.0, C=2.0, D=1.0, F=0, S=3.0, P=2.0, U=0, I=0. W, AU, and TR are not counted. W stands for withdrawal, AU for audit and TR for grades given for credit by challenge exam or transfer.

The average is computed by multiplying each final grade point value by the number of credit hours, totaling all grade points, and dividing the total points by the total number of credit hours for which there are final grades for the last five years.

2. Maximum Time Frame—Complete a program within 90 attempted credit hours. Students enrolled in a program that requires 80 credit hours or more must complete their program within 100 credit hours. Financial Aid will not be paid to

students who have exceeded 90 attempted credit hours at T-VI. All terms of attendance including periods when students did not receive financial aid are counted in the total number of attempted credit hours.

3. Incremental Progress—Complete a minimum number of credit hours each term. The following chart shows the minimum number of credit hours a student must complete each term based on the number of hours initially registered for.

Enrollment Status	Minimum Credit Hours to Be Completed Per Term
Full Time (12 credit hours or more)	g credit hours
Three-quarter Time (9-11 credit hours)	7 credit hours
Half Time (6–8 credit hours)	4 credit hours
Less than Half Time (5 or fewer credit hours)	3 credit hours or all attempted if fewer than 3

These figures do not necessarily reflect what a student should complete to finish a program within 90 credit hours. For satisfactory academic progress purposes, any course in which the grading option has been changed to audit after aid has been disbursed will be treated as a dropped class.

Financial Aid Probation: If a student does not maintain a 2.0 grade point average or does not maintain incremental progress, the student is put on financial aid probation for one term. If a student is not making satisfactory progress at the time he/she applies for financial aid, the student will be placed on probation for the first term of financial aid. While on probation, the student will continue to receive financial aid. (Students expecting a student loan should check with a student loan advisor to see if they are eligible to receive a loan on probation.)

If a student on financial aid probation does not meet the above standards by the end of the probationary term, then the student is suspended from receiving further financial aid. Terms spent on financial aid probation are counted in the maximum allowable time the student has to complete a degree or certificate program.

Financial Aid Suspension: Students who have been placed on suspension do not receive any financial aid. Students on financial aid probation who do not meet satisfactory academic progress standards by the end of the probationary term will be suspended from receiving further financial aid.

Financial aid will be reinstated when the student completes one term meeting all of the satisfactory academic progress requirements. Terms spent in financial aid suspension are counted in the maximum allowable time the student has to complete a degree or certificate program.

Appeal Process: Students suspended from financial aid may appeal that decision. The director of financial aid or his designee bases reinstatement on mitigating circumstances that directly contributed to deficient academic performance. However, in the case of a student loan, if the aid is reinstated, the loan term will not be backdated to cover the term in which the deficiency took place.

Students who want to appeal must obtain and fill out an appeal form from the Financial Aid Office, attaching all required documentation. The director of financial aid or his designee will review the appeal and approve or disapprove reinstatement of financial aid. The student will be notified of the director's decision within 10 working days from the day the appeal was submitted.

Student Loans: Students borrowing from any one of the following programs— Stafford, SLS, PLUS or NMNSL—must observe the following standards in addition to those listed above:

The student must carry and complete at least six credit hours during the loan period. If not, all future disbursements during that loan period will be canceled. This is final and cannot be appealed.

If a student drops to less than half time or withdraws from all classes during a term in which he/she received money from a loan, then the student may not apply for another loan until successfully completing a term, carrying at least six credit hours.

Deferments: Students awarded enough financial aid to cover their tuition and other costs may defer those costs until their financial aid check arrives. If the student's financial aid cannot meet all the costs, the balance is the student's responsibility. For those who deferred their costs, T-VI deducts what they owe from their check when it arrives. The student receives the difference.

It is also a student's responsibility to pay for tuition, equipment fees, textbooks, and/or any other T-VI charges if his or her financial aid check does not arrive or is canceled for any reason. If a student's balance is not paid on or before midterm, a hold will be placed on the student's registration and academic records and his or her account may be turned over for collection.

To apply for Financial Aid deferment, students should contact the Financial Aid Office. See the *T-VI Student Financial Aid Guide* for detailed information regarding deferments.

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Refunds: If a student withdraws from school, the student may be due a refund depending on when he or she withdrew. If a student due a refund received Title IV funds, the Financial Aid Office must return a portion of that refund to the applicable Title IV programs. (Title IV programs include Pell Grant, SEOG, SSIG, College Work Study, Stafford Loan, SLS and PLUS.)

T-VI uses the following formula to determine the portion of the refund to be returned. College Work Study is excluded from the calculation.

Refund Formula:

Amount of × Repayment

Total Title IV Funds
Total Financial Ad

Amount to be Returned to Title IV Programs

Repayment of Cash Disbursements: If a student received cash for living expenses and the student withdraws from school and the cash the student received is greater than the cost of living expenses up to the student's withdrawal date, the student must repay a portion of the amount he or she received. Living expenses are calculated in increments of one month.

T-VI uses the following formula to determine the portion of the repayment to be returned to the applicable Title IV program(s). (Title IV programs include Pell Grant, SEOG, SSIG, College Work Study, Stafford Loan, SLS and PLUS.) College Work Study, Stafford Loan, SLS and PLUS programs are excluded from the calculation.

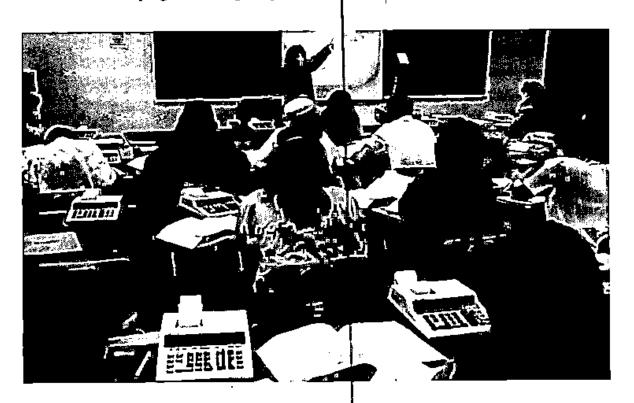
Repayment Formula:

Amount of × Repayment

Total Title IV Funds
Total Financial Aid

Amount to be Returned to Title IV Programs

Distribution Policy: The Financial Aid Office distributes the assigned portion of a student's refund or repayment to loan programs first, then to the largest component of the applicable Title IV programs. The allocated portion will not exceed the amount that the student received from a program. In the case of SLS, PLUS, or Stafford Loan programs, assigned portions will be returned to the student's lender.



Academic Regulations

Academic Year: The academic year is divided into three full terms of 15 or 16 weeks: fall, winter and summer.

Definition of Credit Hour: Credit in courses offered by T-VI is awarded in terms of hours of credit. Each hour of credit in a lecture class requires a minimum of 750 minutes of instruction per term; each hour of credit in a laboratory class requires a minimum of 1,500 minutes of instruction per term. For transfer purposes, one T-VI credit hour generally equals one semester credit hour at other institutions.

Course Numbering: Courses numbered 1 through 100 are developmental or preparatory; 101 through 299 are intended for freshmen and sophomore-level students.

Classification of Students: The following are standards for the academic classification of students:

Freshman: A student who has completed fewer than 30 credits Sophomore: A student who has completed 30 or more credits Part-time: A student carrying fewer than 12 credit hours Full-time: A student carrying 12 or more credit hours

Identification Cards: Each term a student is enrolled at T-VI, he/she is issued a student identification card by the Cashier's Office upon payment of tuition and fees. Replacement cards can be obtained at the student's department counseling office. ID cards entitle students to a variety of services and privileges including checking out library books and using the Health Center, as well as student discounts within the community.

ATTENDANCE: Students enrolled for credit or audit are expected to attend all class sessions. Instructors will take attendance.

Any student who misses the first three days of a scheduled occupational class may be withdrawn automatically. Such changes could affect a student's financial aid, scholarship and/or refunds.

A student with excessive absences (15 percent of total class hours) may be dropped from the class. A student withdrawn for attendance reasons may apply to re-enter T-VI the following term.

Absences do not relieve students of the responsibility for missed assignments and exams. Students must take the initiative in arranging with their instructors to make up missed work.

(See the Health Occupations student handbook for specific rules in those programs.)

GRADES: Progress reports (grades) are given at midterm. These grades are not a part of the student's permanent record. Final grades are issued at the end of each term and are recorded on the student's transcript and calculated in both a term GPA and cumulative GPA.

A student who receives an I (incomplete, U (unsatisfactory), D or F as a final grade may not enroll in any class for which the former is a prerequisite.

Two grading scales are used to compute term and cumulative grade point averages

(GPA):

Arts & Sciences Courses

Developmental Studies O		Occ	cupational Courses			
		GPA		I	GPA	
S	Satisfactory	_	Α	91-100	4.0	
P	Progress	_	В	81- 90	3.0	
U	Unsatisfactory		d	71 80	2.0	
	_		DPª	61 70	0.1	
			F	Failing	0.0	
			I^3	Incomplete	_	
			W	Withdrew	_	
			A ^l Uʻ	4 Audit	_	
			TR ⁵	Credit		

¹Term and cumulative GPAs are based on all dourses except Developmental Studies.

Incomplete Grade Assignment and Removal: A grade of I (incomplete) is given when circumstances beyond the student's control have prevented completion of the work for a course within the official dates of a term. The assignment of an I grade can only be done by the course instructor at the time final grades are due. In no case is an I to be used to avoid a failing grade or to allow extra time to complete work normally expected.

Removal of an I grade can only be completed as follows:

- —I grades can be removed only during the first two weeks of the following term.

 —Removal of an I is accomplished by completing the work in a manner acceptable
- to the instructor.

²A grade of D or F is unsatisfactory and is not considered passing for a course that is a prerequisite for any other course.

³I grade: see below.

⁴An audited course does not earn credit and is not computed in the GPA. The cost is the same as for hours taken for credit.

⁵Grade given for credit by challenge exam of transfer.

—An I not made up by the 10th day of the following term will automatically revert to an F or U on the student's record and cannot be changed by work completion or course repeat.

Honor Roll: The Vice President's Honor Roll is compiled each term, listing full-time students earning GPAs of 3.6 to 4.0.

Repeating Courses: A student may choose to repeat a course for a better grade. Each course enrollment and all grades will appear on the student's transcript, but only the higher grade will be used to calculate the cumulative grade point average. This change in policy does not affect courses taken prior to fall 1991.

Note: Certain forms of financial aid will not provide assistance to students who repeat courses previously completed successfully. Compliance with such regulations is the student's responsibility.

Grade Appeals: Students may formally appeal only final grades of U or F. Appeal forms are available from department offices. The following steps must be followed:

Step 1: Appeal must be made to the instructor in writing specifying the student's reasons or substantiation for the requested grade change. The appeal must be made by the end of the first week of classes in the following term. If the matter is not satisfactorily resolved at this level, the student may appeal to the department dean.

Step 2: Appeal to the department dean must be made in writing by the student within five days of the instructor appeal conference. The dean will appoint a board (two faculty members and one student) to hear the appeal within one week. The written decision of the board is final.

ACADEMIC STANDARDS

Warning: A student whose cumulative grade point average (GPA) is between 1.75 and 1.99 in a given term will receive a warning. Notification of academic warning appears on the student's grade report at the end of each grading period.

Probation: A student whose cumulative GPA (based on at least 16 credit hours attempted at T-VI) falls below 1.75 in a given term will be placed on probation effective with the following term. Students are continued on probation if they withdraw from T-VI while on probation. Notification of academic probation appears on the student's grade report at the end of each grading period.

Suspension: After two consecutive terms of probation a student will be suspended from T-VI when both the term and cumulative GPA are below 1.75. The duration of the initial suspension is one term; for subsequent suspensions, one full year. Notification of academic suspension appears on the student's grade report at the end of each grading period and in a notification letter sent to the student. Academic suspension also appears on the student's official T-VI transcript.

If a suspended student has preregistered for the next term, his/her class schedule will be deleted and a refund of all fees and tuition will be authorized. A suspended student may be eligible to enroll in Developmental Studies courses during the suspension period.

GRADUATION: T-VI conducts one graduation ceremony each year following the completion of the winter term. A student graduates in the term in which all graduation requirements are completed even though there may not be a graduation ceremony scheduled that term.

Students enrolled in degree programs will receive an Associate in Arts (AA), Associate in Science (AS) or Associate in Applied Science (AAS) degree upon completion of all requirements. Students in degree programs who complete all certificate requirements may apply for a certificate without changing their status. Students enrolled in non-degree status are not eligible to receive certificates or degrees from T-VI.

General Requirements: To be eligible to receive a degree or certificate, students must meet the following requirements as well as those listed under the specific

program they wish to pursue:

• An overall cumulative grade point average of 2.0 or better and completion of all program and course requirements.

• The student's last term of coursework must be completed at T-VI.

• Students enrolled in degree programs must complete a minimum of 60 credit hours with a minimum of 15 credit hours in residency after a degree becomes available.

• Students in degree or certificate programs must complete an Application for Graduation form by the l0th day of the term in which all graduation requirements will be completed. Application forms are available in the department counseling offices and must be returned there. Students requesting a certificate or degree in more than one program must submit an application for each program to the appropriate department counseling office. No application will be processed after the 10th week of the term.

Students who do not submit an application by the 10th day deadline or who do not submit an application for the term in which graduation requirements are completed must pay a \$20 late graduation fee before submitting their application.

All debts to T-VI must be paid in full before graduation.

Graduation with Honors: Students earning cumulative GPAs of 4.0 graduate with highest honors. Students with cumulative GPAs of 3.6 to 3.9 graduate with

honors. Degrees and certificates note these awards.

Choice of Catalog: The application form for a degree or certificate requires a student to specify the catalog year listing degree or certificate requirements. Students may choose to graduate under the catalog which was in effect when they entered the program or any subsequent catalog, provided the selected catalog is not more than five years old when the degree or certificate requirements are completed and provided the student has been in continuous enrollment. Those whose enrollment is discontinuous graduate under the catalog that is current upon their return.

Continuous Enrollment: In order to maintain continuous enrollment for graduation purposes, a student must be registered for courses past the 15th day (including Saturdays) of each successive term (excluding the summer term). No record is kept of a student's enrollment if he/she withdraws prior to that date.

If an interruption in enrollment of one or more terms (excluding summers) occurs, graduation requirements applicable at the time of re-enrollment will apply.

STUDENT ACADEMIC RECORDS: Official academic records are maintained by the Records Office. These records include the admissions application, high school and/or college transcripts, grades and academic standing.

T-VI's policy for maintaining confidentiality of student academic records is in accordance with the Family Educational Rights and Privacy Act of 1974 (P.L. 93-380, 513). Copies of the Rights and Privacy Act are available for examination in the Records Office at the Main Campus and the Admissions Office at the Montoya Campus.

Access to Student Academic Records: All currently enrolled and former students may have access to their academic records. Other individuals and agencies who may have access to students' records include:

- —T-VI faculty and staff performing their job responsibilities related to academic and educational programs;
- Scholarship, third party funding sources and other financial aid organizations supporting the student;
- -Federal, state and local officials who by law must receive information from T-VI;
 - -Organizations carrying out any accrediting program recognized by T-VI;
 - -Employers and officials of other educational institutions;
- —Any party designated by judicial order or subpoena, provided T-VI notifies the student of the subpoena; and
- -Any person with the written consent of the student or the parent or guardian of students under 18.

Public Directory Information: T-VI has defined public directory information as: a student's name, major field of study, classification, dates of attendance, and honors and degrees/certificates awarded. This information is available to the public and will be released unless an annual written request to withhold the information is on file in the Records Office. Request forms may be obtained at the Records Office at the Main Campus or the Admissions Office at the Montoya Campus and must be submitted by the 10th day of the term in order to be honored that term.

Challenge of Contents: Students have the right to challenge the content of their academic record if they feel the information is misleading or inaccurate. However, the fairness of a grade may not be challenged under this provision. Any dispute over the contents of the record will be handled through informal discussions between the student and Records Office manager, registrar or dean of student services. If such informal meetings are not satisfactory, the student has the right to a formal hearing before an appeals committee.

Release of Transcripts: To request T-VI transcripts, students must contact the Records Office on the Main Campus or Admissions Office on the Montoya Campus. Transcripts are free of charge. No transcript is issued until all institutional obligations are paid.

Change of Name: Name changes will be processed only for currently enrolled students. Students must bring appropriate documentation (at least two types of identification showing the new name) to the Records Office on the Main Campus or the Admissions Office on the Montoya Campus. Examples of such documentation

are: marriage certificate, birth certificate, driver's license, original social security card or court order for legal name change.

Change of Address: The student is expected to keep T-VI informed of his or her current address. Any change of address should be reported immediately to the Records Office on the Main Campus or the Admissions Office on the Montoya Campus.



Student Services

COUNSELING AND ADVISEMENT: Professional counselors in the admissions areas and individual departments at both campuses provide educational advisement to applicants and students, including:

- -Advice on program and course selection;
- -Career exploration including aptitude, interest and personality assessment;
- -Counseling for personal, social or wellness concerns; and
- -Crisis intervention and referral.

TESTING SERVICES: T-VI's Testing Centers, in Stromberg Hall on Main Campus and Wiley Hall at Montoya, offer a variety of tests, most free of charge. Among the examinations administered are:

ACT: This exam, scheduled monthly, is used for placement in certain courses and programs. The ACT fee and a T-VI registration fee (for either the current or next term) must be on file prior to scheduling the exam. The fees are not refundable. All fees must be paid and scheduling arrangements made at least 24 hours in advance of the exam. Information about the ACT and free study guides are available in the Testing Center.

ASSET Exam: This exam is required for T-VI applicants who do not have a high school diploma or GED. T-VI is required by federal law to administer the exam under the ability-to-benefit guidelines. The exam contains sections on English, reading and math. No fee is required.

Career Advisement Tests: Aptitude, personality and interest tests are available to assist applicants and students in choosing a program of study. A current registration fee must be on file before the exams will be given.

Certificate Program Advisement Tests: Basic math and vocabulary tests are administered to applicants to determine, with the help of a counselor, program and course placement. No fee is required.

English and Reading Tests: The English placement exam is a short exam administered to students enrolling in English courses at or below the English 101 level. A short reading test is also available for meeting course prerequisites and placement into preparatory reading courses. No fee is required.

GED Exam: Anyone at least 17 years old who is not enrolled in high school may take the General Educational Development exam for a high school equivalency certificate. The exam contains sections on writing, reading, science, social studies and math. No fee is required.

A 17-year-old may take the exam only if released from the state compulsory school attendance law and granted a GED Underage Permission Form. No currently enrolled high school student, and no one 16 years old or younger, may take the exam. Special testing is available for disabled students.

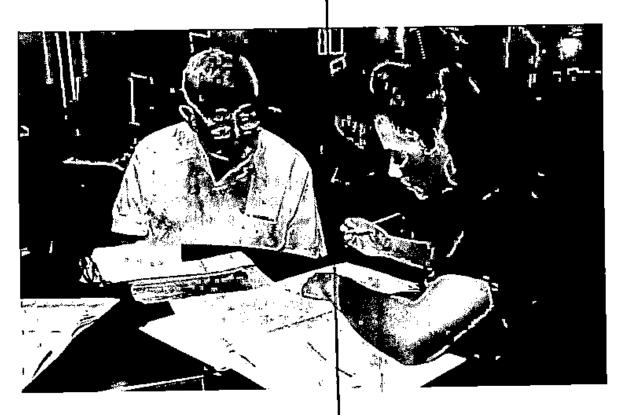
Interested persons may pre-test to determine readiness for the five-part exam. Those who want or need more study before taking the test may enroll in free GED preparatory classes, offered day and evening at both campuses and other locations in the Albuquerque area. For information on the classes, see page 136.

Math Placement Tests: The algebra placement test must be taken by all students who want placement in Math 120 or above but have not taken the prerequisite course. Students planning to enroll in Math 162—Calculus I must take both the algebra and trigonometry placement tests. No fee is required.

Re-testing Procedure: Students wishing to repeat an exam may do so after a waiting period has elapsed. A 10 calendar day waiting period applies to all exams except the ACT and GED which are 60 days. There is no waiting period for career advisement or aptitude exams. Students are advised to brush-up at the Tutorial/Learning Center, located adjacent to the library at both campuses, prior to re-testing.

Appeal Process: Questions and other matters related to testing and placement procedures must be addressed to the Director of Testing at Main Campus.

Exams Honored: T-VI honors both SAT and CLEP scores but does not administer these exams. For further information contact the Testing Center.



JOB PLACEMENT: Graduates are responsible for finding their own jobs after completing a T-VI program. However, the Institute's Industrial Relations Office and the instructional staff provide job-seeking assistance.

Graduates and students enrolled for at least 12 credits may call the Industrial Relations hot line, 843-9696, for a recorded message of daily job openings. Industrial Relations supplies referral cards for jobs listed by employers who want to hire from T-VI. The office also has printed materials and other resources. Some services are available to part-time students.

Students in their final term may register for graduate placement services, which include resumé preparation and scheduling of on-campus interviews. Students must be candidates for graduation with passing grades at midterm to use these services. (Also see page 4.)

LIBRARY, AUDIOVISUAL AND TUTORING SERVICES: These services support T-VI's academic programs and also are open to the public.

When school is in session, the facilities are open from 7 a.m. to 9:30 p.m. weekdays except Friday, when they close at 5 p.m., and Saturdays from 8 a.m. to 5 p.m. When school is not in session, hours are 8 a.m. to 5 p.m. Monday through Friday.

Libraries: The libraries at both T-VI campuses offer books, maps, pamphlets, newspapers, magazines, encyclopedias and dictionaries, as well as computerized information retrieval systems. Special collections are maintained in all T-VI occupational subjects. Services include help in locating materials, instruction in using a library, study facilities, interlibrary loans, magazine back issues and coin-operated copying machines.

The Main Campus Library is on the fourth floor of Jeannette Stromberg Hall; the Montoya Campus Library is in J Building.

Audiovisual Services: Audiovisual Services maintains T-VI's 16mm film and videotape collections and all AV equipment. Materials are available for classroom and individual viewing.

Instruction in the operation of AV equipment is available to students and staff. Other services include educational film location, preview arrangements and assistance in the design, preparation and application of audiovisual materials. Special audiovisual materials are available for recreational viewing.

The Main Campus Audiovisual Service is on the third floor of Jeannette Stromberg Hall. At Montoya, AV is in K Building.

Tutorial/Learning Centers: Located adjacent to the libraries on each campus, the Tutorial/Learning Centers' open-entry labs provide individualized assistance, videotaped lectures and other media, and self-paced learning materials. Each center maintains a registry of tutors available throughout the campus.

The centers are open to the public, offering self-paced computer literacy, academic skills improvement and test preparation.

Adult Learning Laboratory: Located at 901 Buena Vista SE, this drop-in lab offers specialized instruction for Adult Education and Developmental Studies students, with emphasis on success strategies for returning students. Special assistance is available for students who speak English as a second language and for those preparing to take the GED exam. (Also see Business Occupations Learning Centers, page 47.)

FOOD SERVICES: The Main Campus has two food facilities: in Room 35 of the A Building and in Room 125 of Smith Brasher Hall.

The A-35 facility include a bakery and a culinary arts line serving luncheon entrees, both open Tuesday, Wednesday and Thursday during the term from 11:15 a.m. to 12:15 p.m., and a snack bar serving short-order meals and snacks on school days from 7 a.m. to 3:30 p.m. and from 5:30 to 8:30 p.m.

The Smith Brasher Hall facility includes a snack bar serving short-order meals and snacks on school days from 7 a.m. to 1:45 p.m. and a culinary arts dining facility, Student Specialties, serving gourmet meals Tuesday through Thursday at 6 p.m. by reservation only.

The Montoya Campus has a snack bar in the H Building serving food in the mornings and evenings when school is in the evening during summer term.

Vending machines are available in the snack bars and at other locations on both campuses.

BOOKSTORES: The T-VI Bookstores sell all textbooks required for purchase by T-VI students. The stores also sell a full range of school supplies and miscellaneous items such as dictionaries, backpacks, sportswear, computer equipment and novelties.

The Main Campus Bookstore, in the A Building, is open from 8 a.m. to 8 p.m. Monday through Thursday and 8 a.m. to 4:30 p.m. Friday. The Montoya Campus Bookstore, in Tom Wiley Hall, is open from 8 a.m. to 7 p.m. Monday through Thursday and 8 a.m. to 5 p.m. Friday.

HEALTH CARE: The T-VI Health Center, located in Room 126 of the A Building on Main Campus, is open weekdays from 8 a.m. to 5 p.m. Basic primary care services are offered, including physical examinations, care for acute conditions and various laboratory tests. Services are free except for complete physical exams with lab tests (including physicals required for T-VI programs). On a limited basis, counseling is provided for mental health concerns.

First aid and emergency care also are provided through the Health Center. If it is necessary to transport an ill or injured student to a medical facility, the student is responsible for transportation costs.

Students may purchase group health insurance.

STUDENT ACTIVITIES: Students may establish clubs or organize activities if at least 15 students are interested, if a faculty or staff member serves as sponsor and if needed facilities can be located at a reasonable cost. Several clubs now exist, and membership is open to all interested students. Funding is derived from student fees.

Representation of students' ideas and concerns is the task of Student Government. This group is led by officers and department representatives elected by students.

For more information, contact the student activities coordinator, Main Campus, 768-0791, the Montoya Campus administrator, 271-4207, or the dean of student services.

Campus Conduct

SUBSTANCE ABUSE: T-VI has committed its resources to creating an environment that fosters learning. Such an environment depends in part on the physical, emotional and social well-being of T-VI students and staff. Abuse of alcohol and drugs impairs work and academic performance, poses a threat to the health and safety of the T-VI community and undermines the learning environment. T-VI is committed not only to maintaining a drug-free campus but also to helping students and staff solve drug- and alcohol-related problems.

This policy covers all property and facilities owned, used, leased or controlled by T-VI and any other site where T-VI business is being conducted, including motor vehicles.

Controlled substances include, but are not limited to, marijuana, hashish, cocaine (including crack), amphetamines, heroin, PCP, hallucinogens, anabolic steroids, certain prescription drugs and certain controlled substance analogs. Possession, use, sale or trafficking of controlled substances and glues is prohibited and punishable as a crime.

Illegal uses of alcohol include, but are not limited to, serving, buying or drinking alcohol by a minor; assisting a minor or an intoxicated person to get alcohol; selling alcohol without a license and driving while under the influence. Possession of alcohol is prohibited on all T-VI properties and in T-VI vehicles.

The unlawful manufacture, distribution, dispensing, possession or use of controlled substances or alcohol on T-VI property or as part of any of its activities by any member of the T-VI community is strictly prohibited.

As a condition of employment, all T-VI instructors and staff shall abide by the terms of this policy. Violations of this policy shall result in disciplinary action, up to and including dismissal.

As a condition of continued registration and enrollment, all students shall abide by this policy. Violation of this policy shall result in disciplinary action, up to and including expulsion.

T-VI's response to any violation of this policy may include, as a total or partial alternative to disciplinary action, a requirement that the employee or student participate satisfactorily in an approved substance-abuse treatment or rehabilitation program as a condition of continued employment or registration/enrollment.

In recognition of the dangers of substance abuse in the workplace, T-VI shall maintain alcohol and drug-free awareness programs to inform members of the campus community about issues and risks of substance abuse. Counseling and treatment referral resources are available through the T-VI Health Center.

Disruptive Behavior: Unsafe or disruptive behavior anywhere on campus property is grounds for suspension or dismissal from T-VI. This policy applies to any field trip taken under the supervision of a T-VI employee.

SUBSTANCE ABUSE/DISRUPTIVE BEHAVIOR APPEAL: A student suspended or dismissed for disruptive behavior or found in violation of the Institute's substance abuse policy may appeal the case to the department dean or, in the case of non-degree students, to the dean of student services.

The student must appeal in writing with in three school days of the suspension or dismissal. The dean shall appoint a review board of two instructors and one student to review the violations with the student involved. The hearing must be held within five working days after the student's request has been received by the dean. The student will be given the opportunity to present his/her version of the incident. The board will determine if the suspension or dismissal is upheld or if the student is to be reinstated. The board will inform the department dean of its findings and recommendations, and the dean will inform the student. The decision of the board is final.

If reinstated, the student will be placed on probation. In the case of substance abuse, the reinstated student also will be required to see a T-VI counselor for referral to professional help. The counselor will report periodically to the dean about the student's progress.

PERSONAL PROPERTY: T-VI is not responsible for property loss or damage or for personal injuries.

Lockers are available in many campus buildings. Any student may use an empty locker by providing a lock for it. The lock and locker contents must be removed by the last day of each term, when a student is no longer enrolled or when otherwise necessary. Locks remaining on lockers during a term break or for more than five days after a student has left school are cut off and the locker contents removed. Students then have 30 days to claim their possessions in the lost-and-found offices.

Lost-and-found offices are in the NT Building on Main Campus and in Tom Wiley Hall on the Montoya Campus.

OTHER REGULATIONS:

Parking: Student parking lots are provided free at both T-VI campuses. Handicapped parking spaces are designated, and there are areas for motorcycles and bicycles. The lots are unsecured, and T-VI is not liable for theft, vandalism or other losses. The speed limit in all campus parking lots is eight miles per hour.

A parking permit sticker is required in T-VI lots. Stickers are available free in the NT Building at Main Campus and in Tom Wiley Hall at Montoya Campus.

Bus Passes: Economical bus passes for post-secondary students are available for Suntran city buses. Students may purchase a regular bus pass for unlimited rides during one calendar month for \$19 from the cashier's office at either campus. For students attending at least half time with a minimum 2.0 grade average, the pass costs \$9.50.

Free bus passes are available to needy students who meet certain requirements. Interested students should contact the Financial Aid Office at either campus.

Smoking: In accordance with Albuquerque City Council ordinance and T-VI Governing Board resolution, smoking is prohibited in all T-VI buildings.

Plagiarism and Cheating: A student guilty of plagiarism and/or cheating will receive a grade of F or U in the course involved. A pattern of cheating will result in suspension.

Computer Crime: Under the state Computer Crimes Act, a person who intentionally and without authorization accesses, alters, damages, copies or destroys any computer system or data stored within is subject to criminal prosecution on charges ranging from misdemeanor to third-degree felony. Such conduct also will lead to suspension or dismissal.

Dangerous Substances: Carrying, possessing or storing dangerous substances or materials on campus is prohibited.

Weapons and Firearms: Carrying, possessing or storing weapons and firearms on campus is prohibited. Exceptions to this policy are law enforcement officers authorized by state law to carry firearms and students participating in law enforcement instruction requiring the use of firearms who are under the supervision of a certified law enforcement instructor.

Food and Beverages: Drinking and eating are prohibited in all classrooms, labs and libraries.

Animals: Animals (except those assisting sensory impaired persons) are not allowed in T-VI buildings.

Children: Students are not permitted to bring children to classroom or laboratory settings. Children left unattended on campus will be brought to the attention of the appropriate law enforcement agency.

Misrepresentation: Non-disclosure or misrepresentation in filling out applications or other educational records will make a student liable for disciplinary action, including possible dismissal from the Institute.

Developmental Studies

Preparatory Program Main and Montoya Campuses

This department offers courses designed to help students meet admission requirements for certificate and associate degree programs and for transfer to other degree-granting institutions. Courses may also be used by students for reviewing material with which they may have lost familiarity!

Certain courses described in this section are designed to help students acquire skills which are needed in the first term of occupational programs leading to the certificate. College preparatory courses are English 100, Reading 100, Math 100A and Science 100A. These courses enable students to meet admission requirements for degree programs. Students may elect to enroll in a combination of courses offered in this department, depending upon their needs. Students who are interested in financial aid, however, should inquire from financial aid advisors whether their intended program in Developmental Studies qualifies them for financial assistance. Students enrolled in certificate and associate degree programs may simultaneously enroll in courses in this department.

A student who wishes to enroll in Developmental Studies and receive financial aid as a full-time student must enroll for at least 12 credit hours. However, a normal recommended course load is 13 credits.

Courses in this department are graded S, P or U. These courses are not credited toward a certificate or degree program at T-VI nor do they transfer to other degree-granting institutions. However, grades are recorded in students' permanent records. Students are not permitted to audit preparatory courses.

The Developmental Studies Department offers courses at both campuses. Several courses are also scheduled at night at both campuses. Math, English and Reading courses follow a sequence pattern (i.e. 099 courses may be prerequisites to 100 courses depending upon admission scores). More information concerning course offerings in this department is available from counselors at either the Main or Montoya Campus.

Course descriptions for Developmental Studies begin on page 139.

Preparatory Program

		chedule for	Cr
Certificat	e Progr	rams	Hrs
Mathema	tics	***************************************	4
Study Sk	ills	*	3
Reading.			3
Ѕигуеу с	lass	***************************************	3
Students instead of	with	low reading test scores should take one of the following couling 100:	ırses
RDG ENG	099 094	Reading Improvement	3 6
or who on the A students	wish to ACT (so who as	o seek admission to or are enrolled in an associate degree progotransfer to another college or university but have not scored see page 8) should enroll in those courses listed below. Similar enrolled in a certificate program which requires satisfactory of CT should enroll in courses for which further preparation is need.	weli arly, om-
ENG	100	Writing Standard English	3
MATH	100A	Elementary Algebra for College Students	4
RDG	100	College Preparatory Reading	3
		OLL	_

Courses offered in Developmental Studies are:

English 090, 092, 094, 099, 100

Math 090, 092, 098, 099, 100A

Reading 092, 099, 100

Science 100A

SCIE

Spanish, Spelling, Targeted Instruction, Employability Skills, and Thinking Strategies.

Courses in Communications for Technologies, Trades, Business Occupations and Health.

Survey courses include Introduction to Accounting, Introduction to Typing, Introduction to Health, Introduction to Data Processing, Introduction to Electronics and Introduction to Drafting.



Special Services

Main Campus

The Special Services program is designed to meet the needs of handicapped students enrolled at T-VI. Services are provided to prepare the handicapped student

for participation in the world of work and higher education.

Career counseling, individual program planning, vocational assessment, ancillary services, coordination with community support agencies, and individualized instruction are provided. For students enrolled in developmental, certificate and associate degree courses, limited curriculum adjustments are made to accommodate handicapping conditions. Follow-up services, such as counseling, tutoring and jobseeking help, are provided.

Handicapped students entering T-VI through Developmental Studies take regular preparatory courses and are eligible for placement, in specially designed support

courses.

Referral to Special Services can be arranged through the student's department counselor/advisor, support agency, admissions counselor/advisor, or directly by the interested student.

	L L
Support Courses	Hrs
Mathematics	6
Language	
Spelling Targeted Instruction	······· 3
Targeted Instruction	ļ <u>3</u>
Employability Skills	1

Arts & Sciences

The Arts & Sciences Department provides liberal arts courses to support degree programs, and offers an associate in arts degree. All courses are transferable as freshmen and sophomore electives or requirements at other degree-granting institutions.

All Arts & Sciences courses have a tuition charge. Science courses also have lab fees (see page 18). Some courses carry prerequisites or corequisites.

General Honors Courses: These courses, by offering intensive interdisciplinary study, are designed to increase opportunities for liberal arts education. Taught in a small seminar format, General Honors courses emphasize discussion, student participation and self-expression.

Participation in these courses is by application only; however, any student interested in the challenge these courses offer is encouraged to apply. Academic potential (ACT scores), record of previous academic work and intellectual motivation are the main criteria used to select students.

For more information and an application, interested students should see the Arts & Sciences Department counselor.

Course descriptions for Arts & Sciences begin on page 144.

Liberal Arts

Associate in Arts Degree Main and Montoya Campuses

This degree is designed to meet diverse educational interests. It provides the general curriculum of the first two years of baccalaureate study for transfer purposes or as an end in itself.

Students entering the Liberal Arts degree will be expected to meet prerequisites to enter MATH 120 and ENG 101. It is strongly recommended that applicants at

the time of admission to T-VI provide proof of prerequisites for these two courses (or proof of their completion). See the course descriptions for MATH 120 and ENG 101 for lists of prerequisites.

Fulfillment of the degree requirements listed below and institutional requirements

listed on page 31 of the catalog is required for graduation.

Some disciplines and courses not offered by the Arts & Sciences Department may be accepted in transfer toward the degree requirements. For information about transfer work, contact the Arts & Sciences office.

Liberal Arts Degree Program	
Communications English writing courses (must include ENG 02)	Cr Hrs 6 3
Computer Science 101 or equivalent	3
Social and Behavioral Sciences Anthropology Economics Geography Political Science Psychology Sociology No more than 6 credits from any one discipline	9
Biological and Physical Sciences Astronomy Biology Chemistry Geology Physics 2-3 courses (must include one lab course)	7-8
Humanities General Honors History Humanities Literature (English, foreign, or comparative) Philosophy No more than 6 credits from any one discipline	
Mathematics One course numbered above Math 120	2–3
Fine Arts and Foreign Languages (Fine Arts may include only one course in studio or applied arts) Any two courses	6
Electives Any Arts & Sciences courses (one cr. hr. of P.E. allowed)	<u>7–19</u>
Total	64



Business Occupations

The Business Occupations Department offers the following certificate/degree programs: Accounting; Business Administration with specialties in merchandising, small business management, real estate, tourism and hospitality, and general business; Court Reporting; and Secretarial Studies with general and legal specialties. One-term programs are Sales and Cashiering (certificate) and Entrepreneurship. An associate degree in Legal Assistant Studies is available. Business Occupations Learning Centers (BOLCs) offer non-credit self-paced courses.

Applications are accepted every term for all programs; however, not all programs are offered at both campuses. Advanced students may earn credit for on-the-job

training through Supervised Work Experience courses.

Credit by examination is available for most courses. Challenge examinations are administered in the BOLCs at each campus for a \$10 fee. Department counselors have detailed information. Challenge exam credit may not be accepted by other post-secondary institutions.

Course descriptions for Business Occupations begin on page 163.

Business Occupations Learning Centers

Self-Paced, Open-Entry Courses Main and Montoya Campuses

The BOLCs serve members of the public and T-VI students who want to review

or learn a particular subject or skill on a self-paced basis.

Individuals may begin using these centers at any time during a term and stop when requirements have been met. A certificate is granted upon completion of a course. Instruction is offered on new equipment including electronic typewriters, electronic calculators, transcribing machines, microcomputers and audiovisual training aids. Hours are arranged to suit individual needs and as equipment is available.

The Main Campus center is located in Room 210 of Smith Brasher Hall. The Montoya Campus center is in Room H-127. Hours at both centers are 7:30 a.m. to 9 p.m. Monday through Thursday, 7:30 a.m. to 5 p.m. on Friday, and 9 a.m. to 1 p.m. on Saturday.

The fee is \$20 per course.

BOLC Subject/Skill Areas

Typing I Typing II Keyboarding Typing Skill-building Alphabetic Shorthand I Gregg Shorthand I Gregg Shorthand II Shorthand Speed-building **English Review**

Shorthand Review (Century 21, Forkner, ABC and Gregg)

Spelling

Business Mathematics Fundamentals

Electronic Calculators Accounting Fundamentals Machine Transcription

Medical Transcription Medical Terminology

Introduction to Microcomputer Courses

Computer Literacy WordPerfect

Lotus 1-2-3

Accounting

Associate in Applied Science Degree/ Certificate Program Main and Montoya Campuses

Accounting is an excellent field for persons looking for a challenging career that has good potential for advancement.

Students in this program may earn an associate in applied science degree or certificate. The degree is awarded to students who complete both occupational and Arts & Sciences courses. Several courses may be transferred to four-year institutions (see program advisor). A certificate is awarded to students who complete the occupational component.

The New Mexico State Board of Public Accountancy accepts many of T-VI's accounting courses for fulfillment of the education requirement for the CPA exam. A bachelor's degree is also a requirement.

Students may select from a number of support courses, at least one of which must be an accounting course. A minimum of 15 students is required for a support course to be offered. A typing skill of 25 words per minute is required of students before they enroll in some courses. Typing courses are available in Developmental Studies, the Business Occupations Learning Centers and the Business Occupations Department.

All occupational courses must be passed with a minimum grade of C to qualify for graduation. For students who are undecided about their major, survey courses are available in the Developmental Studies Department.

Supply fees are charged for some courses (see page 18).

Accounting Program

		Certificate and Degree Requirements	Cr
		L L	Hrs
*ACCT and		Accounting Principles I	3
መመ	IAID		4
or	IÚID	Accounting Principles 1	4
	1011.	Accounting Principles I	7
ACCT	1012A	Accounting Principles II	3
and	102/1	Accounting transpica it	,
	102B	Accounting Principles II	4
or		•	,
ACCT	102L	Accounting Principles II	7
ACCT		Accounting Math	5
ACCT	201	Intermediate Accounting 1	3
ACCT	202	Intermediate Accounting II	3 3 3 3
ACCT	240		3
ACCT	254L		3
ACCT	255L	Computerized Accounting Lab	3
ACCT	260	Cost Accounting.	3
ACCT	280	Managerial Accounting	3
BA	113	Introduction to Business (7½ weeks)	2 5 3
BA	121	Business Communications I	5
BA	122	Business Communications II	3
BA	131	Human Relations (71/2 weeks)	2
		or	
		General Psychology Elective	3-4
BA	133	Principles of Management	3
BA	150L	Introduction to Computer Processing	3
or			
CSCI	101	Computer Literacy	
BA	211	Business Law	3
		One Support Course (required for dertificate only)	3-4
		One Accounting Support Course	3
		Total	67–70

Additional Degree Requirements

ENG MATH MATH	101 120 145	Writing with Readings in Exposition Intermediate Algebra. Introduction to Probability and Statistics. COMM 130 or 221 or 232 or 240 Social Science/Humanities Elective	
		10tat	02-03
		Support Courses	
ACCT	241	Tax Accounting II	3
ACCT	270	Governmental Accounting	3
ACCT	271	Auditing	3
ACCT	272	Accounting Systems Design	3
BA	215	Money and Banking	3
BA	226	Principles of Finance	3
BA	240	Investments	3
BA	298	Supervised Work Experience	4
ECON	200	Macroeconomics	3

^{*}Course may be offered in the evening.

Business Administration

Associate in Applied Science Degree/ Certificate Program Main and Montoya Campuses

The Business Administration program is designed to provide students with the skills, knowledge and experience required in today's business. Each student receives a broad overview of business operations and should be prepared for several job options after successful completion of goals.

Emphasis in the early terms is on written and verbal communications, management and accounting principles. Those students completing all core occupational courses receive business administration certificates.

An Associate in Applied Science Degree in Business Administration is awarded to students who complete the occupational requirements, Arts & Sciences components and a concentration in one of five areas: Merchandising, Small Business Management, Real Estate, Tourism and Hospitality or General Business.

A structured sequence for the Real Estate and Tourism and Hospitality concentrations is necessary early in the program. One or two specialty courses should be taken each term. The Tourism and Hospitality concentration includes elective courses sponsored by the Educational Institute (EI), an educational foundation of the American Hotel and Motel Association. These courses may be used toward industry-recognized professional certification.

A typing skill of 25 words per minute is required before students can enroll in some courses. Typing courses are available in Developmental Studies, the Business Occupations Learning Centers and the Business Occupations Department.

Degree students select from the list of support courses in their specialty to prepare for their employment goals. Not all support courses are offered each term. A minimum of 15 students is required for a support course to be offered.

minimum of 15 students is required for a support course to be offered.

Most courses are offered in the evening as well as day time. Several courses in the program may be transferred to four-year institutions (see program advisor for details).

All occupational courses must be passed with a minimum grade of C to qualify for graduation. For students who are undecided about their major, survey courses are available in the Developmental Studies Department.

Supply fees are charged for some courses (see page 18).

Business Administration Program

Certificate and Degree Requirements

			1	Cr Hrs
*ACCT and	101A	Accounting Principles I		3
*ACCT	101B	Accounting Principles I	• • • • • • • • • • • • • • • • • • • •	4
or ACCT	101L	Accounting Principles 1	.,,,,,,,,	7
	102A	Accounting Principles II		3
and	103B	A assumting Principles II	'	4
of	IUZD	Accounting Principles II	,	7
ACCT	102L	Accounting Principles II		7
ACCT	111	Accounting Math		5
ACCT	254L	Electronic Spreadsheet Lab		3
ACCT	260	Cost Accounting		3
BA	113	Introduction to Business (71/2 week	ks)	2
BA	121			5
BA	122			3
BA	131	Human Relations (71/2 weeks)		2
		General Psychology Elective		3-4
BA	133			3
BA	150L		iþg	3
or				
CSCI	101	Computer Literacy		3
BA	211	Business Law		3
BA	222			3
BA	284			3
		Support Course		3-4
		10881		<i>⊋4</i> –33

Additional Degree Requirements COMM 221 Interpersonal Communications..... 3 COMM 130 or 232 or 240 3 **ECON** 200 Macroeconomics 3 **ENG** 101 Writing and Readings in Exposition..... 3 MATH 120 Intermediate Algebra..... 3 PHIL 245B Business Ethics 3 Special Concentration Options for Degree (One Option Required) Merchandising BA 251 Retail Merchandising Management.... Approved Support Course..... Small Business Management **ENTR** 101L Entrepreneurship Approved Support Course..... Total 74–77 Real Estate BA 270 Real Estate Law..... 3 Real Estate Practice BA 271 3 Approved Support Course..... Tourism and Hospitality *BA 261 Introduction to Tourism and Hospitality 3 OF 262 Introduction to the Hospitality Industry..... **"**BA 3 Of *BA 263 Tourism and the Hospitality Industry..... Approved Support Courses General Business BA Supervised Work Experience 298 Approved Support Course..... Total 74–77

Support Courses

ACCI	240	Tax Accounting I
ACCT	255L	Computerized Accounting Lab
ACCT	260	Cost Accounting
ACCT	272	Accounting System Design
ACCT	280	Managerial Accounting 3
BA	215	Money and Banking
BA	226	Principles of Finance
BA	240	Investments
BA	251	Retail Merchandising Management
BA	255L	Desktop Publishing
BA	256	Employment Procedures and Techniques (7 ¹ / ₂ weeks)
BA	257L	Presentation Graphics
BA	260	Presentation Graphics
'BA	264	Front Office Procedures
'BA	265	Marketing of Hospitality Services
'BA	266	Hotel/Motel Law
BA	272	Real Estate Appraisal
BA	273	Real Estate Finance
BA	274	Real Estate Investment
BA	275	Property Management
BA	276	Land Use Planning
BA	277	Real Estate Comprehensive Contracts
BA	278	Real Estate and Taxes
BA	286	Advertising
BA	287	Delta Epsilon Chi Competition
BA	298	Supervised Work Experience 4 Topics—Retail Merchandising 3
BA	299	Topics—Retail Merchandising
ENTR	101L	Entrepreneurship
FSMG	102	Operations Management
FSMG	103	Human Relations
FSMG	104	Marketing/Cost Control Management
FSMG	170L	Advanced Food Service Management
FSMG	198	Supervised Work Experience 4
		•

Court Reporting

Associate in Applied Science Degree/ Certificate Program Main Campus

The program trains qualified men and women for entry into the highly technical court reporting profession. Instruction focuses on computer-aided transcription. The field is experiencing steady growth and offers many employment opportunities.

^{*}Course may be offered in the evening.

Court reporters are skilled professionals with machine shorthand and transcription skills who produce verbatim transcripts of proceedings. Their main responsibilities include preparing accurate transcripts of trials and hearings and taking depositions. Reporters are employed in many settings, including court proceedings, depositions, corporate meetings, arbitration hearings, conventions and legislative sessions.

Students enrolled in CR 103L—Machine Shorthand I are responsible for furnishing their stenotype machines (manual or electric). Rental or purchase arrangements for an educational stenotype machine and CAT system are available through the T-VI Bookstore. Approximate cost for the educational stenotype machine, tripod and carrying case needed in CR 103L is \$700.

The certificate and degree programs each take about 75 weeks to complete. All occupational courses must be passed with a minimum grade of C to qualify for graduation. Students who are unable to complete the certificate program should see the program advisor for information regarding a departmental certificate in Text Processor/Scopist or Rapid Text Writer.

One of the main goals of the certificate and degree programs is to prepare students to pass the state certification test.

Supply fees are charged for some courses (see page 18).

Court Reporting Program

Certificate Requirements

			Cr
			Hrs
SS	IOIL	Typing Lab 1	6
BA	121	Business Communications I	5
'BA	131	Human Relations (7½ weeks)	2
BA	211	Business Law	3
CR	103L	Machine Shorthand I	7
CR	104Ŀ	Machine Shorthand II (80-100)	7
CR	121	Introduction to Court Reporting (71/2 weeks)	2
CR	132	Medical Terminology/Anatomy	3
CR	204L	Machine Shorthand III (120–140)	4
CR	205L	Machine Shorthand IV (160-180)	4
CR	206L	Machine Shorthand V (200–225)	4
CR	250L	Computer-Aided Transcription	3
CR	260	Court Reporting Procedures	3
CR	298	Supervised Work Experience	4
SS	102L		6
2SS	111	Business Math/Calculators	5
SS	132	Information Processing Concepts (71/2 weeks)	2
or			
CSCI	101	Computer Literacy	3
SS	133L	Word Processing	3
SS	240	Legal Terminology/Procedures	3
ENG	240	Traditional Grammar	3
		Total	79-80

			I
COMM 221 ENG 101	Interpersonal Communications Writing with Readings in Expost MATH 120 or higher or Biologic	ion	
	nts may substitute COMM 221 for degree students.	BA 13	ы.
		 	1
	Entreprene	urs	nip
The Entregand those will operations an	no own or manage a business a nd/or expansion. ram may not qualify students f	nd wa	ho plan to open a small business ant further training in principles, terans Administration benefits or
			Cr

Legal Assistant Studies

101L Entrepreneurship Lab

Associate in Applied Science Degree Main Campus

ENTR

The Legal Assistant Studies program trains qualified men and women for entry into the legal profession.

Legal assistants are skilled professionals who perform tasks and services under the supervision of a licensed attorney. Responsibilities include drafting legal documents and correspondence, file management, interviewing and assisting clients and witnesses, investigation, data analysis, research and litigation support.

Employment opportunities include placement in legal firms, corporate legal departments, insurance companies, real estate and title insurance firms and public utilities. Public sector opportunities with community legal service programs and federal, state and local government agencies are expected to increase over the next few years.

Students learn substantive and procedural law as well as legal skills. Studies cover the nature and philosophy of fundamental legal theory, the legal system and how that system relates to other disciplines, legal analytical skills, and the professional responsibilities of the legal assistant. The ethical and moral issues inherent in the practice of the profession are stressed.

To earn an associate degree, a student must successfully complete laboratory work, related legal theory and Arts & Sciences courses. All courses must be passed with a minimum grade of C to qualify for graduation.

Supply fees are charged for some courses (see page 18).

Legal Assistant Studies Program

Required LAS Courses

			Cr Hrs
LAS	101	Introduction to Legal Assistant Studies	
LAS	102	Business Organizations	3
LAS	111	American Law and Ethics	
LAS	123	Torts	
LAS	124	Legal Research and Writing I	3
LAS	201	Contract Law	3
LAS	203	Civil Litigation, Investigation and Discovery	3
LAS	204	Legal Research and Writing II	3
LAS	221	Wills, Probate and Estate Planning	
LAS	222	Criminal Procedure	
ОГ			_
LAS	223	Domestic Relations	3
LAS	298	Supervised Work Experience	4
		Support Course (see list below)	3
		Required Arts & Sciences Courses	
COMM 1	221	Interpersonal Communications	3
CSCI	101	Computer Literacy	
ENG	101	Writing with Readings in Exposition	
ENG	119	Technical Communications	
or			•
ENG	240	Traditional Grammar	3
MATH	120	Intermediate Algebra or higher Math	
PHIL	156	Logic and Critical Thinking	3
PSCI	200	U.S. Politics	3
PSY	105	Psychology	

Support Cdurses

ACCT	IOIL	Accounting Principles 1		7
LAS	211	Real Estate Law	************	3
LAS	230		************	
LAS	232	Personal Injury: Legal and Med	ical Aspects	3
LAS	234	Administrative Law		3
LAS	236	Discrimination/Labor/Employer-	-Employee Relations	3
LAS	238	Law Office Management and Hu	ıman Relations	3
LAS	299	Topics Course	***************************************	3
			************************************	_

Sales and Cashiering

Certificate Program Main Campus

Persons who want to learn a skill quickly and find a job as soon as possible should consider this program. It is designed for those preparing for entry-level jobs in retail and service occupations. It also will benefit students who want to explore sales as a career.

The sales-cashier laboratory teaches the skills of sales, the cash register touch system and human relations. Students work with various makes and models of electromechanical and electronic cash registers and a computerized cash register/scanner.

The 15-week program provides up to 225 hours of classroom instruction and a minimum of 150 hours of paid Supervised Work Experience with an approved cooperating employer. Students who complete the course receive certificates.

This program does not qualify students for Veterans Administration training benefits or other student financial aid.

Sales and Cashiering Program

				C,
_				Hrs
SALE	101L	Sales-Cashier Lab		9
SALE	198	Supervised Work Experience		4
		Total		13
		20.00	***********************	13

Secretarial Studies

Associate in Applied Science Degree/ Certificate Program Main and Montoya Campuses

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 secretarial graduate has a choice of seeking employment in many fields: legal, medical, governmental, technical, service and educational. The Secretarial Studies student has three options for successful completion of training goals: Clerical certificate, Secretarial certificate, and Secretarial Associate Degree.

Students may select an advanced lab in either information processing or legal typing. Additionally, Supervised Work Experience is available. Students should see the program advisor for details.

All occupational courses must be passed with a minimum grade of C to qualify for prerequisite requirements and for certificate or degree requirements. For students who are undecided about their major, survey courses are available in the Developmental Studies Department.

Students who want to enroll in a course by permission of the program advisor may obtain the necessary form from the department. Permission does not constitute waiver of a course, nor does it grant credit for another course. See the program advisor for more information.

An entering student with a strong background in clerical or secretarial skills may challenge most courses by examination and substitute another Business Occupations course.

Secretarial Studies associate degree candidates may want to take the Certified Professional Secretary (CPS) review courses as support courses. CPS is the nationally recognized rating for secretarial proficiency.

Individuals who have already attained a CPS rating may receive credit hours toward the Secretarial Studies associate degree. Contact the program advisor at either campus for more information about advanced placement.

The associate degree courses may be transferred to the University of New Mexico for credit for the first two years toward a bachelor's degree in training and learning technologies (see Secretarial Studies program advisor). Some Secretarial Studies courses may be taken in the evening.

Supply fees are charged for some courses (see page 18).

Secretarial Studies Program

Clerical Certificate

					Cr Hrs
'BA		131	Human Relations (71/2 weeks)		1
*SS		101A	Typing Lab I	***********	3
	and				
" SS		101B	Typing Lab I		3
	Of				
SS		101L	Typing Lab I	*******	(
SS		111	Business Math/Calculators	***************************************	4
SS		112	Secretarial Accounting		3
SS		121	Office Communications I		4
SS		122	Office Communications II		3
SS		132	Information Processing Concepts	71/2 weeks)	5
	or			1	•
CS	CI	10 I	Computer Literacy	************************	7
SS		133L	Word Processing		7
SS		201L	Information Processing Lab		ě
	or				`
2SS		207L	Legal Typing Lab		6
SS		298	Supervised Work Experience (opti	onal)	4
SS		230	Office Communications III		7
SS		250	Machine Transcription		3
SS		260	Business Procedures		7
			Total		<u></u>
					JU-JJ
			Secretarial Certificat	e (General)	
			Clerical Certificate		055
SS		134	Shorthand I Gregg		5
	οr		•		~
SS		135	Shorthand I Alphabetic		5
SS		136	Shorthand II		4
'SS		234	Shorthand III		
			Total	1 7	2-67
					,
			Secretarial Certificate (I	egal Specialty)	
			Secretarial Certificate (General)	l	2-67
BA		211	Business Law		3
SS		240	Legal Terminology/Procedures		3
			Total	-	8-73

Secretarial Studies Associate Degree

		Secretarial Certificate (General) excluding BA 131	66–71
'BA	113	Introduction to Business (71/2 weeks)	2
COMM	221	Interpersonal Communication,	3
ENG	101	Writing with Readings in Exposition	3
		Biological and Physical Science Elective or	
		Math 120 Intermediate Algebra or higher	3
		Social Science Elective	3
		Arts & Sciences Elective	3
		Total	83–88
		Certified Professional Secretary Review	
*SS	281	CPS Review: Behavioral Science	1
'SS	282	CPS Review: Business Law	I
*SS	283	CPS Review: Economics and Management	1
•SS	284	CPS Review: Accounting	1
•SS	285	CPS Review: Office Administration and Communications	1
•SS	286	CPS Review: Office Technology	l

*Course may be offered in the evening.

Students who are degree bound take BA 113—Introduction to Business instead of BA 131— Human Relations.

2SS 207L—Legal Typing Lab—is required for the Legal Specialty secretarial certificate and degree.

A shorthand proficiency of 80 wpm is required for the secretarial certificate and the secretarial degree.



Health Occupations

T-VI'S Health Occupations Department provides the following nursing programs: Associate Degree in Nursing, Nursing Assistant and Practical Nurse. Other Health Occupations majors are: Health Unit Clerk, Medical Laboratory Technician, Phlebotomist, Respiratory Therapy Technician and Respiratory Therapist.

Classes for most programs are held in Jeannette Stromberg Hall at Main Campus. The Helene Fuld Library and audiovisual collections, part of Main Campus Library Services, provide excellent learning resources.

Learning laboratories are equipped with hospital furnishings and supplies, respiratory therapy machines and life-like models which give students the chance to practice basic skills needed for clinical experiences. Students have supervised patient practicums and observations at different community agencies.

Admission: Applicants for all Health Occupations programs except Nursing Assistant must have a high school diploma or General Educational Development (GED) certificate. There is also a math skill requirement, and some programs require the ACT. A student may be required to have a physical exam. The T-VI Health Center provides this exam for a fee if the student does not have a private physician.

Nursing and Practical Nursing courses have enrollment criteria.

Because there are more applicants than training facilities for both the Practical Nurse and Associate Degree Nurse programs, applications are not currently being accepted. Please contact the Health Occupations Department for more information.

Special Courses: Optional courses available through Health Occupations are listed below. These courses do not lead to a program certificate although a certificate of completion is given. At least 12 students must sign up for a special course before it can be offered and each student must meet all stated prerequisites.

Cardiac Monitor Technician
Emergency Medical Technician
Licensed Practical Nurse Refresher
Nursing Clerk Assistant
Nursing Home/Home Health Attendant
Perioperative Registered Nurse Specialist
Registered Nurse Refresher

Course descriptions for Health Occupations begin on page 178.

Cardiac Monitor Technician

Special Course 10 Weeks, Main Campus Fall, Winter Terms

This four-credit course is for anyone interested in learning about heart (cardiac) monitoring. Students will learn about heart anatomy and physiology, heart arrhythmias, pacemakers, cardiac drugs and conduction problems. The content is presented in theory classes and through clinical experiences at local hospitals. Students will receive a certificate of completion.

Admission: High school diploma or GED. There is a \$10 supply fee and students are required to purchase a textbook.

Emergency Medical Technician

Special Course 15 Weeks, Main Campus Summer, Fall, Winter Terms

This course trains ambulance attendants to recognize, stabilize and transport patients with life-threatening emergencies. The 115-hour course is taught by New Mexico licensed emergency medical technician (EMT) instructors. The class includes theory, lab and practical experiences. Students may be required to put in additional hours in local medical facilities. Upon successful completion of the course, a T-VI and EMS (Emergency Medical System) Academy certificate is awarded. The students completing the course are eligible to take the state licensure exam to become licensed emergency medical technicians.

The course is offered each term during the evening hours. Participants pay the T-VI registration fee, a \$35 equipment fee and a \$15 supply fee, and purchase the required textbook.

			Cr
			Hrs
*EMS	160L	Basic EMT Skills	 6

^{*}Course is offered in the evening

Licensed Practical Nurse Refresher

Special Course Six Weeks, Main Campus Winter Term

This 180 hour, six-week course is designed to renew skills of inactive licensed practical nurses, introduce new trends and procedures, and provide clinical experiences. It meets the New Mexico State Board of Nursing requirements of license renewal for practical nurses who have not worked in nursing for the past five years. Theory classes and clinical experiences focus on medical and surgical nursing care including pharmacology. Students must receive a grade of C or better in theory and clinical to complete the program.

The refresher course will be offered once a year in the winter term. Interested persons should contact the Health Occupations Department for more information. Thirty-two people are admitted to each course on a first come, first served basis.

Participants pay the T-VI registration fee, \$20 supply fee and the cost of required textbooks. White uniform and shoes, a stethoscope and transfer belt are required for clinical practice. There are additional fees payable to the New Mexico State Board of Nursing for licensure endorsement and reinstatement if a nursing license has expired. A certificate of completion is awarded at the end of the course.

This program does not qualify students for Veterans Administration benefits or other financial aid.

			C7
			Hr.
LPNR 155L	Refresher Theory/Lab		6
LPNR 165C	Refresher Clinical Experience	 	2

Nursing Clerk Assistant

Special Course Eight weeks Fall Term

The Nursing Clerk Assistant program prepares present nursing assistants for an expanded role as hospital unit secretaries (health unit clerks). Theory classes include transcription of physicians' orders, hospital forms and computer usage, medical terminology and abbreviations, review of anatomy and physiology, pharmacology and communications skills.

To be admitted, applicants must be experienced or have completed a nursing assistant course, have a high school diploma or GED, read at the seventh grade level, pass the admission tests and type 25 words per minute. Applicants must also be able to write clearly and accurately and have the ability to speak distinctly to others.

There is a \$30 equipment fee which covers the required uniform top, parking fees and health tests. Neutral colored slacks or skirt are required but not covered by the fees.

The 200-hour program includes four weeks of course work theory and four weeks of clinical practice in local hospitals. A grade of C or better is required for all course work. A certificate of completion is awarded.

Nursing Home/Home Health Attendant

Special Course 11 Weeks, Main Campus Summer, Fall, Winter Terms

This 88-hour, eleven-week course is designed to teach basic nursing skills to individuals who wish to work or are working in a nursing home as a nursing home attendant, or in patients' homes as a home health attendant. It has been developed for people who would like to become state certified.

Theory classes include geriatrics, simple anatomy and physiology, rehabilitation, residents' rights and housekeeping chores. Lab experiences focus on personal care, vital signs and mobility skills.

The course is offered every term, beginning the second week after the term begins. Interested persons should contact the Health Occupations Department for more information. Twenty-four persons are admitted to each course on a first come, first served basis. A certificate of completion is awarded at the end of the course.

Participants pay the T-VI registration fee and the cost of the required textbook.

This program may not qualify students for Veterans Administration benefits or other financial aid.

Perioperative Registered Nurse Specialist

Special Course 15 weeks, Main Campus Fall Term

This course provides registered nurses with the skills and knowledge to work in hospital operating rooms or free-standing day surgical units. The curriculum offers an introduction to the history, scope and role of the perioperative nurse; the concept of team management and collaboration; the surgical environment: principles of asepsis, sterilization and safety; use and care of basic instruments and equipment; standards of practice and legal, moral and ethical issues; the nursing process;

continuity of care; surgical pharmacological agents; wound healing; and management skills. Students have an opportunity to apply theory to practice in hospital operating rooms.

Applicants must be registered nurses with six months' clinical nursing experience within the last two years and be currently certified in cardiopulmonary resuscitation. Applicants also must submit proof of current immunizations, a physical examination within the last year and a current New Mexico nursing license.

There is a \$25 supply fee and students are required to purchase their own text-books.

Students must make grades of C or better in all coursework to receive a certificate. This program will be offered in fall term only.

This program may not qualify students for Veterans Administration benefits or other financial aid.

				C,
				Hrs
PRNS 2	55L :	Perioperative Registered Nurse S	pecialist Theory/Lab	8
PRNS2 6	5C :	Perioperative Registered Nurse S	pecialist Clinical Experience	6
				44

Registered Nurse Refresher

Special Course Six Weeks, Main Campus Fall Term

This six-week refresher course meets the requirements of the Nursing Practice Act of New Mexico for registered nurses who have not worked in nursing for the past five years. Theory classes and clinical experiences focus on medical and surgical trends, pharmacology, cardiac care, maternity and other current subjects. Students must receive a grade of C or better in both program.

The refresher course will be offered once a year in the fall term. Applicants are admitted on a first come, first served basis and enrollment is limited to 32 persons. Interested persons should contact the Health Occupations Department for more information.

Participants pay the T-VI registration fee, \$20 supply fee and the cost of required textbooks. White uniform and shoes, a stethoscope and transfer belt are required for clinical practice. There are additional fees payable to the New Mexico State Board of Nursing for licensure endorsement and reinstatement if a nursing license has expired. A certificate of completion is awarded at the end of the course.

This program does not qualify students for Veterans Administration benefits or other financial aid.

			ı	Cr
				Hrs
RNR	255L	Refresher Theory/Lab	 	6
RNR	265C	Refresher Clinical Experience	!	2

Health Unit Clerk

Certificate Program
Main Campus
Winter, Summer Terms

The Health Unit Clerk program prepares persons to work in hospitals, elder care centers, outpatient clinics and physicians' offices. Transcribing doctors' written orders, typing, ordering supplies, answering the telephone, working with computers and communicating with patients, visitors and staff are typical activities.

To be admitted, applicants must have a high school diploma or GED, read at the seventh grade level, pass the admissions math test and type 25 words per minute. Applicants also must be able to write clearly and accurately and have the ability to speak distinctly to others.

There is a \$30 equipment fee which covers the required uniform top, parking fees and health tests. Neutral-colored slacks or skirts are required, but are not covered by the fee.

The 375-hour program lasts 15 weeks, with nine weeks of classroom theory and six weeks of clinical practice in local hospitals and hospital outpatient clinics. A grade of C or better is required for all coursework. A certificate is awarded upon completion.

Health Unit Clerk is offered in the winter and summer terms only.

This program may not qualify students for Veterans Administration benefits or other financial aid.

Health Unit Clerk Program

			Cr
			Hrs
HUC	101L	Health Unit Clerk Theory and Lab	8
HÜC	121C	Health Unit Clerk Clinical Practice	7
		Total	15

Medical Laboratory Technician

Associate in Science Degree Main Campus Begins in the Winter Term

The Medical Laboratory Technician program prepares students to perform laboratory procedures which aid the physician and pathologist in the diagnosis and treatment of disease. Medical Laboratory Technicians (MLTs) work in clinics, hospitals, private laboratories and physician office labs, collecting blood specimens and performing test procedures in such disciplines as clinical chemistry, hematology, immunohematology, immunology, microbiology and urinalysis under the supervision of a pathologist and medical technologist.

The program is accredited by the American Medical Association's Committee on Allied Health Education and Accreditation. Graduates are eligible to take both the American Society of Clinical Pathologists and the National Certification Agency certification exams to obtain Certified Medical Laboratory Technician credentials.

To be admitted, students must have satisfactory ACT scores in math and English. Applicants must also score at least 19 on the ACT in scientific reasoning and meet the following general requirements for admission:

• Submit transcripts of previous education including high school, vocational school or college. College transcripts must be official.

• Score at least 85% on the Health Occupations basic math entrance test. Applicants may retest once. Applicants with two unsuccessful attempts on the test must successfully complete health math in the Developmental Studies Department before they can be accepted into the program.

Complete the following prerequisites:

-MATH 121 (completed with a grade of ¢ or better).

—High school chemistry or CHEM 111/1 2L (complete with a grade of C or better) or a higher level college chemistry course completed with a grade of C or better.

Applicants who have completed preadmission requirements should call the Health Occupations Department to schedule a personal interview with a program representative. Students may schedule an interview during the fall term if they are enrolled in prerequisite courses and have completed all the other admission requirements.

If selected for the program, students must submit completed health forms with evidence of current immunizations and a physical examination before beginning the practicum portion.

Applicants will be admitted to the program on a space-available basis once all admission requirements are met. The program begins in the winter term of each year and has a capacity of 20 students.

Medical Laboratory Technician students will obtain both academic instruction and practical experience. A grade of C or better must be earned in all courses to progress through the program and graduate with an associate in science degree. The clinical practicum experience at affiliated hospitals and laboratories provides actual experience in performing laboratory tests under the direction of a supervisor. Students must arrange for their own transportation to the hospitals or labs. Students are required to submit evidence of current certification in cardiopulmonary resuscitation prior to the first clinical rotation. CPR certification must be kept current throughout the program.

There is an equipment charge of \$50 for two lab coats, parking fee and name tag. Each MLT laboratory course also has a \$15 fee.

Arts & Sciences courses listed in the curriculum may be taken prior to entering the program. If a student is selected for the program, credit for these courses will be given if a grade of C or better was earned in the course and lab.

The Health Occupations Department schedules regular orientation sessions. Persons interested in the Medical Laboratory Technician Program are encouraged to attend one of these sessions. Contact the Health Occupations Department for the dates, times and location of the sessions.

Medical Laboratory Technician Program

			Cr
			Hrs
MLT	110L	Introduction to Medical Technology	4
MLT	112L	Clinical Immunology	2
MLT	151C	Clinical Experience Urinalysis/Phlebotomy	4
² MLT	201L	Clinical Chemistry	7
MLT		Clinical Microbiology	5
² MLT		Clinical Hematology/Coagulation	6
² MLT		Clinical Immunohematology	3
MLT	205C	Clinical Experience	12
		•	
		Required Arts & Sciences Courses	
BIO	123	Biology for Health Sciences	3
BIO	124L		1
ENG	101	Writing with Readings in Exposition	3
		'Communications Elective (not required)	3
CHEM	121L	General Chemistry	4
BIO	136	Human Anatomy and Physiology for Non-Majors	3
BIO	139L	Human Anatomy and Physiology Lab for Non-Majors	1
CHEM		General Chemistry II	4
BIO	239	Microbiology for Health Sciences	3
BIO	239L	Microbiology Lab for Health Sciences	1
		³ Humanities/Social Science Elective	
		Total	69–72

Note: Additional college courses may be considered for transfer credit if completed at an accredited college or university with a grade of C or better and equivalent credits. Official transcripts must be sent to the T-VI Records Office for consideration of transfer credit eligibility prior to admission to the program.

'Communications elective not required for graduation but necessary for transfer to bachelor's degree Medical Technology program at UNM.

²Courses taught by the University of New Mexico faculty at the Health Sciences and Service Building on the UNM campus. Students are charged T-VI tuition rates for these courses.

³PHIL 245M—Biomedical Ethics strongly recommended.

Medical Laboratory Technician Advanced Placement

Applicants seeking advanced placement to the Medical Laboratory Technician Program must meet all the admission requirements for the program and submit all required documentation by the end of the term preceding the desired term of entry. Applicants must also complete all the general college course requirements scheduled in the curriculum prior to the term of desired entry. Professional MLT courses must be challenged in the order in which they appear in the curriculum.

Applicants granted advanced placement must pay the required T-VI fees including equipment fees and challenge fees before the start of the term of entry. Documentation of a physical exam and CPR certifications must be received by the program director prior to the next clinical experience.

Route One: Transfer of credit for equivalent course work completed at a regionally accredited technical-vocational school, college or university. Equivalent professional (MLT) courses must have been completed through a CAHEA accredited program in the last five years. Credit is given for courses completed with a grade of C or better with equivalent content and credit hours.

Official transcripts must be sent to the T-VI Records Department for consideration of transfer credit eligibility. Qualified applicants for advanced placement will be admitted on a space-available basis and will be required to complete at least Term V through T-VI in order to be awarded the Associate of Science Degree.

Route Two: Documented work experience in laboratory medicine on specimens from humans. Each subject area of the clinical experiences may be challenged through a skills competency test taken at the beginning of the clinical rotation. Applicants must be able to document at least 200 hours of work experience in the appropriate lab section in an accredited medical laboratory in the last five years.

Applicants challenging the clinical experience are required to complete all required MLT theory courses through T-VI in order to be awarded the Associate of Science Degree.

Route Three: Applicants may transfer credit for required course work and challenge clinical experiences by the routes listed above. In order to be awarded the associate of science degree and receive verification of that degree for the purposes of certification, these students must complete at least 15 credit hours of required MLT course work through T-VI. These MLT courses may be theory and/or clinical experiences.

Nursing Assistant

Certificate Program Main Campus Summer, Fall, Winter Terms

This program trains students in nursing skills required for the care and comfort of the sick in hospitals, outpatient clinics, nursing homes, public health agencies, private medical offices and the home. Persons successfully completing the program with grades of C or better in all course work receive certificates as nursing assistants.

To be admitted, applicants must pass the admissions math test and read at the seventh grade level. Good communication skills and the ability to care for others are necessary for this program. Applicants must have a New Mexico driver's license and a car because students will visit patients' homes. City buses are not adequate for meeting these transportation needs.

The 15-week program includes 300 instructional hours. Nine weeks are spent in the classroom and laboratory, followed by six weeks of extensive supervised clinical experiences in local hospitals, nursing homes, outpatient clinics and home health care agencies. A student attends an average of 21 hours per week throughout the program.

The student will be required to have a physical exam, PPD and a current measles (rubeola) immunization to go to clinical. The T-VI Health Center is able to provide these services if the student does not have a private physician.

A \$33 equipment fee covers the cost of the required uniform top, stethoscope, health test, parking fees, CPR and first aid certification, and a transfer belt. A watch with a second hand, uniform slacks, shirt and shoes are required but not covered by the fee.

Nursing Assistant Program

			Cr
			Hrs
NΑ	101	Nursing Assistant Theory	4
NA	110L	Nursing Assistant Lab	2
		Nursing Assistant Clinical Experiences	
		Health Communications	
		Mathematics	
		Total	

Practical Nursing

Certificate Program
Main Campus
Begins in the Fall Term

This program prepares practical nurses to care for patients in a variety of health care facilities under the supervision of registered nurses and physicians. The T-VI/ Presbyterian Hospital School of Practical Nursing is accredited by the National League for Nursing and approved by the New Mexico State Board of Nursing (NMSBN). This program is not a prerequisite for the Associate Degree Nursing program.

Graduates of this program are eligible to take the licensing examination for practical nurses administered by the NMSBN. Following licensure, LPNs may find employment in long-term care facilities, hospitals, physicians' offices and other health care agencies.

Orientation sessions for T-VI's nursing programs are scheduled regularly. These sessions review levels of nursing, the admission process and program requirements. Individuals interested in nursing are strongly encouraged to attend one of these sessions. Applications are not currently being accepted for the Practical Nurse program because of the large number of current applicants. Contact the Health Occupations Department for the dates and times of the orientation sessions and to find out when applications will be reopened. In addition, it is recommended strongly that applicants have a personal interview with the Health Occupations counselor or nursing program director.

To be eligible to enroll in Practical Nursing courses a student must:

- Provide proof of high school graduation or GED.
- Earn satisfactory American College Test (ACT) scores. Scores for ACT taken after November 1, 1989: English 19, Reading 18, Math 16, Scientific Reasoning 19.
- Score 85 percent on the Health Occupations basic math entrance test. Applicants may retest once. Applicants with two unsuccessful attempts on the test must satisfactorily complete health math in the Developmental Studies Department before they can be accepted into the program. Math scores are valid for one year only. Applicants must re-test to keep their math scores valid and to maintain their status on the list of qualified applicants. Students will be re-tested on basic math early in the first nursing course.
 - Have a cumulative T-VI GPA of 2.0 or higher.

Students are responsible for meeting the empllment criteria and notifying the department counselor when completion occurs. Students are admitted to the courses on the basis of their application dates after all enrollment criteria are fulfilled and verified. Should the number of students eligible to enroll in the first clinical course exceed the class size quota, priority will be given to those students who have completed all of the required Arts & Sciences courses.

After admission to the courses, students must submit:

—Completed physical examination and health forms with evidence of current immunizations before beginning clinical courses.

-Evidence of current certification in cardiopulmonary resuscitation (CPR) for health professionals before beginning clinical courses. CPR certification must be

kept current throughout the program.

The Practical Nurse program includes Arts & Sciences courses for which college credit is awarded. These courses must be taken prior to, or as scheduled in, the curriculum plan. Students are encouraged to take Arts & Sciences courses prior to entering the program. The anatomy and physiology course must be completed within five years from the date of application. A minimum grade of C must be earned in all courses (Nursing and Arts & Sciences) to continue in the program and graduate.

Students must attend classes, observations and clinical experiences as scheduled, and arrange for their own transportation to the agencies and hospitals. There may

be some required evening clinical hours as well as daytime hours.

There is an \$83 equipment fee for required uniforms, stethoscope, scissors, parking fee, transfer belts and identification tags. Students are responsible for the expenses of the physical examination, a watch with a second hand, uniform shoes, cap, graduation pin, textbooks and licensing exam fees.

Information about Licensure as a Practical Nurse (P.N.)

The New Mexico Board of Nursing may deny, revoke or suspend any license held or applied for under the Nursing Practice Act, upon grounds that the licensee or applicant violates any of the following actions:

- 1. Is guilty of fraud or deceit in procuring or attempting to procure a license or certificate of registration;
- 2. Is unfit or incompetent;
- 3. Is convicted of a felony subsequent to licensure;
- 4. Is habitually intemperate or is addicted to the use of habit-forming drugs;
- 5. Is mentally incompetent;
- 6. Is guilty of unprofessional conduct;
- 7. Willfully or repeatedly violates any provisions of the Nursing Practice act;
- 8. Has had a license to practice revoked, suspended or denied in any jurisdiction, territory or possession of the United States or another country for acts of the license similar to acts described in this subsection.



Presbyterian Hospital School of Practical Nursing

The Presbyterian Hospital School of Practical Nursing was started in 1956 at Presbyterian Hospital. In 1965, T-VI assumed administrative responsibility for the school. Presbyterian Hospital Certer supports the school through financial contributions and by providing clinical facilities for patient care experiences. The Presbyterian Hospital School of Practical Nursing in 1972 became the first practical nursing program in New Mexico to be accredited by the National League for Nursing. The program was reaccredited in 1989. It is also included in T-VI's accreditation from the Commission on Higher Education of North Central Association of Colleges and Schools.

Practical Nurse Program

		•	i	Cr
				Hrs
'NURS	124C	Fundamentals of Nursing		7
² NURS	125C	Medical-Surgical Nursing		8
³ PN	131	Pharmacology	1	3
PN	146C		Nursing	
		Required Arts & Scien	ces Courses	
'BIO	136	Human Anatomy and Physiology		3
'BIO	139L	Human Anatomy and Physiology	Lab	1
NUTR	125	Nutrition		3
⁵ PSY	105	General Psychology		3
COMM	221	Interpersonal Communication		3
PHIL	245	Biomedical Ethics		3
		Total		50
INTIDE I	10/1216	May be enheritured	\ '	

NURS 110/121C May be substituted

²NURS 111/122C May be substituted

3NURS 231 May be substituted

BIO 237/247L (if taken before September 1989) of BIO 237/247L and BIO 238/248L (if taken after August 1989) may be substituted. PSY 102 or Psy 220 may be substituted

Note: Students planning to go on for the Associate Degree in Nursing are encouraged to take BIO 237/247L and BIO 238/248L.

Practical Nurse Advanced Placement

There are two ways in which advanced standing can be given to Practical Nurse applicants: credit granted for equivalent coursework and/or successful completion of a challenge exam.

The Arts & Sciences courses required in the Practical Nurse program must be transferred, taken or challenged through the Arts & Sciences Department. These courses include: BIO 136/139L—Human Anatomy and Physiology for Non-Majors, PSY 105—General Psychology, PHIL 245M—Biomedical Ethics, COMM 221—Interpersonal Communication, and NUTR 125—Nutrition.

The nursing courses must be transferred, taken or challenged through the Health Occupations Department. Courses that may be challenged are NURS 124C and NURS 125C. In addition, PN 131 and PN 146C must be taken.

Transfer Application: T-VI will grant credit for equivalent coursework completed at an accredited technical-vocational school or college when official transcripts show grades of C or better on equivalent courses. Students desiring to transfer to T-VI's Practical Nurse program should contact the program director. Nursing courses are only valid for three years from the date of application. Transfer students are required to enroll a minimum of one term and complete 15 credit hours.

Challenge Application: Advanced placement by challenge exam is offered to students who meet one of the following criteria:

- -Completion of a formal course of study in a nursing-related field within a postsecondary educational institution (e.g.; military corps).
- —Performance of basic nursing skills during employment in an in-patient setting within the last three years.

Applicants for challenge must submit an application to the Practical Nurse program and meet the program enrollment criteria. In addition, the applicant must meet the Arts & Sciences course requirements scheduled in the curriculum prior to the desired point of entry. The challenge process includes theory and practical exams.

Deadlines for challenge exams for the nursing courses are in January, May and September. For specific information, contact the Health Occupations Department.

Applicants who successfully challenge NURS 124C or NURS 125C must complete NURS 201 before entering the program. Applicants who successfully challenge NURS 125C must also complete PN 131 before entering the program.

Successful challenge students are admitted to the program on a space-available basis. Challenge students who meet the program objectives are considered full graduates and are eligible to take the licensing examination administered by the New Mexico State Board of Nursing.

Nursing

Associate in Science Degree Main Campus Summer, Fall, Winter Terms

This program prepares technical nurses who provide nursing care to individuals or groups admitted to health care agencies. The clients have common well defined health problems. Graduates work in structured health care settings where they provide and manage client care, teach and promote communication while participating as members of the nursing profession. The Practical Nurse program is not a prerequisite for this program.

Orientation sessions for T-VI's nursing programs are scheduled regularly. These sessions review levels of nursing, the admission process and program requirements. Individuals interested in nursing are strongly encouraged to attend one of these sessions. Applications are not currently being accepted for the Associate Degree Nursing program because of the large number of applicants. Contact the Health Occupations Department for the dates and times of the orientation sessions and to find out when applications will be reopened. In addition, it is recommended strongly that applicants have a personal interview with the Health Occupations counselor or the nursing program director.

The Associate Degree in Nursing program is accredited by the National League for Nursing and approved by the New Mexico State Board of Nursing (NMSBN). Graduates are eligible to take the licensing examination for nurses administered by the NMSBN.

To be eligible to enroll in Nursing courses a student must:

- Submit transcripts of previous education including high school, vocational school or college. College transcripts must be official.
- Earn satisfactory American College Test (ACT) scores. Scores for ACT taken after November 1, 1989: English 19, Reading 18, Math 16, Scientific Reasoning 19.
- Provide proof of meeting the chemistry/biology course requirements. These may be met by:
- —Completion of BIO 123/124L—Biology for Health Sciences, and Chemistry 111/112L—Introduction to Chemistry. This approach is recommended strongly for those students who plan to further their education in nursing, or
- —Completion of BIO 115—Biophysical Science. This approach is recommended only for those students who do not plan to further their nursing education beyond the associate degree and have a math background, or
- —A year of high school chemistry and a year of advanced high school biology. Written approval from the Arts & Sciences Department is required.
- Score 85 percent on the Health Occupations basic math entrance test. Applicants may re-test once. Applicants with two unsuccessful attempts on the test must satisfactorily complete health math in the Developmental Studies Department before they can be accepted into the nursing program. Math scores are valid for one year only. Applicants must re-test to keep their math scores valid and to maintain their

status on the list of qualified applicants. Students will be re-tested on basic math skills early in the first nursing course.

Have a cumulative T-VI GPA of 2.0 or higher.

Students are responsible for meeting the enrollment criteria and for notifying the department counselor when completed. Once all criteria are fulfilled and verified, students are admitted to Nursing courses on the basis of their application dates. Should the number of students eligible to enroll in the first clinical course exceed the class size quota, priority will be given to those students who have completed all of the required Arts & Sciences courses. After admission to the courses students must submit:

—Completed physical examination and health forms with evidence of current immunizations before beginning clinical courses.

Evidence of current certification in cardiopulmonary resuscitation before beginning clinical courses. CPR certification must be kept current throughout the program.

Arts & Sciences courses must be taken prior to, or as scheduled in, the curriculum plan. Required biology courses must have been taken within five years of the date of application to the nursing program.

Students must earn a minimum grade of C in all courses to advance to the next term and graduate. Students must attend classes, observation and clinical experiences as scheduled, and arrange for their own transportation to the agencies and hospitals. There may be some required evening clinical hours as well as daytime hours.

There are equipment fees of \$83 the first term for required uniforms, stethoscope, scissors, transfer belts, parking fees and identification tags. There is \$10 fee the third term for equipment and parking fees. Students are responsible for the expenses of the physical examination, a watch with a second hand, uniform shoes, cap, graduation pin and licensing exam fees.

Information about Licensure as a Registered Nurse (R.N.)

The New Mexico Board of Nursing may deny, revoke or suspend any license held or applied for under the Nursing Practice Act, upon grounds that the licensee or applicant violates any of the following actions:

- 1. Is guilty of fraud or deceit in procuring or attempting to procure a license or certificate of registration;
- 2. Is unfit or incompetent;
- 3. Is convicted of a felony subsequent to licensure;
- 4. Is habitually intemperate or is addicted to the use of habit-forming drugs;
- Is mentally incompetent;
- 6. Is guilty of unprofessional conduct;
- 7. Willfully or repeatedly violates any provisions of the Nursing Practice act;
- 8. Has had a license to practice revoked, suspended or denied in any jurisdiction, territory or possession of the United States or another country for acts of the license similar to acts described in this subsection.

Associate Degree in Nursing Program

			Cr
			Hrs
'NURS	124C	Fundamentals of Nursing.	7
² NURS	125C	Medical-Surgical Nursing	8
NURS	224C	Maternity Nursing	
*NURS	225C	Psychiatric Nursing	5
PHARM	231	Pharmacology in Nursing	3
NURS	246C	Pediatric/Advanced Medical-Surgical Nursing	10
NURS	242	Nursing Trends and Issues	1
		Required Arts & Sciences Courses ,	
BIO	237	Anatomy and Physiology I	3
BIO	247L	Anatomy and Physiology I Lab	1
ENG	101	Writing with Readings in Exposition	3
⁵ PSY	105	General Psychology	3
BIO	238	Anatomy and Physiology II	
BIO	248L	Anatomy and Physiology II Lab	
NUTR	125	Nutrition	3
PSY	220	Developmental Psychology	3
BIO	239	Microbiology for Health Sciences	
BIO	239L	Microbiology for Health Sciences Lab	1
PHIL	245M		
		Elective	_3
		Total	69

'May substitute NURS 110/121C

Associate in Science Degree in Nursing Advanced Placement

To apply for advanced standing in the Associate Degree Nursing program, individuals must meet the admission requirements on page 75.

Orientation sessions for T-VI's nursing programs are scheduled regularly. These sessions review levels of nursing, the admission process and program requirements. Individuals interested in nursing are strongly encouraged to attend one of these sessions. Contact the Health Occupations Department for the dates and times of the sessions. In addition, it is recommended strongly that applicants have a personal interview with the Health Occupations counselor or the nursing program director.

²May substitute NURS 111/122C

³May substitute NURS 210/221C

May substitute NURS 211/222C

May substitute PSY 101 or 102

Advanced placement may be granted in three ways:

Challenge: Challenge exam for students who meet one of the following criteria: Completion of a formal course of study in a nursing related field within a post-secondary educational institution (e.g.; military corps), or performance of basic nursing skills during employment in an in-patient setting within the last three years.

Applicants for challenge must submit an application to the associate degree program and meet the program enrollment criteria. In addition, the applicant must meet the Arts & Sciences course requirements scheduled in the curriculum prior to the desired point of entry. The challenge process includes theory and practical exams. Challenge exams are available for NURS 124C and NURS 125C.

Deadlines for challenge exams for the nursing courses are in January, May and September. For specific information, contact the Health Occupations Department. Applicants who successfully challenge must complete NURS 201 before entering the program.

Successful challenge students are admitted to the program on a space-available basis. Challenge students who meet the program objectives are considered full graduates and are eligible to take the licensing examination administered by the New Mexico State Board of Nursing.

Transfer: Transfer from an approved associate degree or baccalaureate nursing program with equivalent courses. To apply for transfer, the individual must submit evidence of completion of equivalent courses with minimum grades of C. Nursing courses are only valid for three years from the date of application. In addition, students transferring must take NURS 201 prior to entry. Transfer students are required to enroll a minimum of one term and complete 15 credit hours.

LPN Mobility: The associate degree program is designed to admit into NURS 224C and NURS 225 C qualified licensed practical nurses who meet the following requirements:

- -Earn satisfactory ACT scores as defined on page 8.
- —Have a cumulative T-VI GPA of 2.0.
- -Provide proof of meeting the chemistry/biology course requirements as defined on page 75.
- -Submit transcripts of previous education including high school, vocational school or college. College and vocational transcripts must be official.
- —Provide proof of completion or challenge of the following courses with a minimum grade of C (required biology courses must be taken within five years from the date of application):

BIO 237/247L—Anatomy and Physiology I

BIO 238/248L—Anatomy and Physiology II

PSY 105—General Psychology

PSY 220—Developmental Psychology

NUTR 125—Nutrition

NURS 201---Nursing Concepts

ENG 101-Writing with Readings in Exposition

—Pass the Nursing Mobility Profile I examination if an approved post-secondary practical nurse program has not been completed. The exam also may be required if the applicant has not been active in nursing during the last three years.

Students are responsible for meeting the enrollment criteria and notifying the department when completed. After verification that the criteria have been met, students are admitted to the courses on the basis of their application date. Should the number of advanced placement students eligible to enroll exceed the class size quota, priority will be given to those students who have completed all of the required arts and sciences courses. After admission to the courses, students must submit:

—Proof of current LPN license.

—Completed physical examination and health forms with evidence of current immunizations before beginning clinical courses.

—Evidence of current certification in card opulmonary resuscitation before beginning clinical courses. CPR certification must be kept current throughout the program.

Applicants for advanced standing may complete additional courses required for the associate degree in nursing before beginning the second year nursing courses.

This enables them to complete the program on a part-time basis.

Students pay \$10 for equipment and parking. Students also are responsible for the expenses of physical exams, uniforms, transfer belts, shoes, watch with a second hand, stethoscope, bandage scissors, graduation pin and licensing fees.

Phlebotomy

Certificate Program Main Campus Fall, Winter Terms

The primary work of a phlebotomist is to draw blood specimens from health care clients for testing. A phlebotomist generally works in a medical laboratory under

the supervision of a registered technologist.

The job includes establishing a professional relationship with the client, selecting and preparing the skin puncture site, collecting specimens, preparing and maintaining equipment used to obtain blood specimens, caring for the client after specimen collection, entering data into the computer for the testing process and performing clerical duties. The job also requires a lot of walking, bending and standing.

Applicants must have a high school diploma or GED, verbal ability to communicate with clients, basic math skills for calculating dosages and timing tests, and manual dexterity required to handle laboratory equipment. The student must be able to read orders and labels associated with the procedures. To be admitted, applicants must pass the admissions math test and read at the seventh-grade level.

To receive a certificate, a student must complete the 10-week program, which includes 250 hours of classroom instruction and clinical experience in local hospital

and/or clinics, with a grade of C or better in all coursework.

A \$45 equipment fee covers the cost of a lab coat, health tests, name tags, parking fees and other equipment.

The program is offered on the basis of demand and need. Information on starting dates is available from the health Occupations Department.

This program does not qualify students for Veterans Administration benefits or other financial aid.

Phlebotomist Program

			Cr
			Hrs
PHLB	101L	Phlebotomist Theory and Lab	6
PHLB	121C	Phlebotomist Clinical Practice	3
		Total	

RESPIRATORY CARE PROGRAMS

Respiratory care is an allied health profession providing diagnostic testing, therapeutic treatment and critical care life support for patients suffering from acute, life-threatening or chronically disabling heart/lung disorders.

A respiratory therapy technician is a graduate of a twelve-month certificate program, capable of performing specific respiratory care diagnostic tests and treatment modalities covering a variety of well defined therapeutic techniques.

A respiratory therapist is a graduate of a two-year associate of science degree or four-year bachelor of science degree program, capable of performing at the advanced practitioner level of respiratory care.

Under medical direction, the respiratory care practitioner must apply medical and scientific knowledge to the assessment and treatment of clinical problems in respiratory care. Respiratory care practitioners monitor and evaluate cardiorespiratory function, research treatment effectiveness in cardiopulmonary disease and act as consultants to physicians, nurses and other health care specialists concerning application of medical technologies to cardiopulmonary pathology and treatment. Respiratory care practitioners manage respiratory care departments in hospitals and supervise other practitioners in the delivery of pulmonary care. The respiratory care practitioner also serves as educator to patients and the public and in academic training programs.

Employment for respiratory care practitioners is in urban and rural health care facilities nationwide, including veteran and military base hospitals. Employment opportunities also exist with medical equipment suppliers and agencies providing home health care to pulmonary patients.

Respiratory Therapy Technician

Certificate Program
Main Campus
Begins in the Fall Term

The Respiratory Therapy Technician program teaches the knowledge and skills required for diagnosis, treatment and care of patients with breathing problems. The one-year program includes classroom and laboratory instruction and supervised clinical experiences at local hospitals and other health care facilities.

The program is accredited by the American Medical Association's Committee on Allied Health Education and Accreditation and the Joint Review Committee for Respiratory Therapy Education. Graduates are eligible to take the National Board for Respiratory Care certification exam to obtain Certified Respiratory Therapy Technician credentials. Successful completion of this exam also allows individuals to be recognized as Licensed Respiratory Care Practitioners in New Mexico.

Twenty-four qualified applicants will be selected to start Respiratory Therapy Technician coursework each fall term. Additional qualified applicants—if not selected to fill vacancies that occur prior to the start of classes—will be eligible to start coursework the succeeding fall term. Required Arts & Sciences courses may be completed during this waiting period.

Selection of students is based upon the date by which all entrance requirements have been met and required documents are received in the T-VI Records Office.

To meet entrance requirements an applicant must:

- Complete T-VI admissions application form.
- Provide proof of high school graduation or GED certificate.
- Complete the ACT or submit test scores taken within the last five years. Minimum ACT scores are: Composite, 18; Math, 16; Scientific Reasoning, 19.

If the composite score is at least 18 but the math score is less than 16, the applicant must successfully complete a 100-level math course prior to entering the program.

If the composite score is at least 18 but the scientific reasoning score is less than 19, the applicant must successfully complete a 100-level course in scientific reasoning prior to entering the program.

If the composite score is less than 18, the applicant must either successfully complete 100-level courses in all subjects where scores are deficient prior to entering the program or retake the ACT and achieve minimum scores.

Applicants who have successfully completed 15 credit hours of arts and sciences courses, including English and algebra, at a regionally accredited college or university need not take the ACT. Official transcripts of college work must be submitted to T-VI. Completion of 100-level courses in all subject areas of ACT also qualifies applicants without ACT scores. Applicant may qualify also by having a combination of 100-level courses and arts and sciences courses which cover subject areas on the ACT.

• Complete a personal interview with a Respiratory Therapy Technician program faculty member after receiving a letter indicating qualifications have been met.

 After acceptance into the program, submit a completed physical examination form.

Respiratory Therapy students pay a \$75 equipment fee when they begin the program to cover the cost of the required uniform, identification badges and hospital parking fees. Additional costs include purchase of a stethoscope, bandage scissors and graduation pin, and the pre-entrance physical exam.

Arts & Sciences courses which are part of the Respiratory Therapy Technician curriculum may be taken prior to entering the program. When a student enters the program, credit will be given for courses with final grades of C or better.

Students admitted to the program must earn a grade of C or better in all courses to progress through the program and graduate.

Graduates of the Respiratory Therapy Technician program may continue their training by completing a second year of coursework at the Respiratory Therapist level. An associate in science degree in respiratory care is awarded upon completion of all required coursework. (See Respiratory Therapist program for Technicial Graduate Completion, page 84). Upon successful completion of Terms I and II of the Respiratory Therapy Technician Program, enrolled students may elect to enter the Respiratory Therapist level coursework by advanced placement procedures.

Respiratory Therapy Technician Program

			Cr Hrs
RTT	110	Respiratory Therapy Principles and Practice I	
RTT	115L	Respiratory Therapy Lab I	1
RTT	121C	Clinical Experiences I	4
²RTT	131	Physics of Respiratory Therapy	3
RTT	111	Respiratory Therapy Principles and Practices II	
RTT	116L	Respiratory Therapy Lab II	
RTT	122C	Clinical Experiences II	4
RTT	112	Respiratory Therapy Principles and Practices III	
RTT	117L	Respiratory Therapy Lab III	
RTT	123C	Clinical Experiences III	5
RTT	132	Cardiopulmonary Physiology	4
		Required Arts & Sciences Courses	
'Science	Require	ment—Biology	4
'Science	Requires	ment—Anatomy and Physiology	4
'Comput	er Scienc	ce Requirement	
			$\frac{3}{45}$

The following courses at T-VI are recommended to meet these requirements:

Science Requirement—Biology: BIO 123 and BIO 124L

Science Requirement—Anatomy and Physiology: BIO 136 and BIO 139L

Computer Science Requirement: CSCI 101

²Physics Requirement

RTT 131 is offered as part of the curriculum. An equivalent college physics course may be accepted as transfer credit in lieu of RTT 131.

Note: Additional college courses may be considered for transfer credit if completed at a regionally accredited college or university with a grade of C or better and equivalent content and credit hours. Official transcripts must be sent to the T-VI Records Office for consideration of transfer credit eligibility prior to admission to the program.

Respiratory Therapy Technician Advanced Placement

There are two ways in which advanced standing can be granted to Respiratory Therapy Technician applicants: transfer and challenge.

Transfer: Transfer credit may be granted for equivalent arts and sciences course-work completed at a regionally accredited technical-vocational school, college or university. Transfer credit may be awarded for Respiratory Therapy Technician coursework completed at a CAHEA/JRCRTE accredited program. Credit may be given when the T-VI Records Office receives official transcripts showing grades of C or better on equivalent courses.

Challenge: The second advanced placement method, for people with documented respiratory therapy work experience, is through challenge exams. Persons wanting to challenge Term I coursework may apply at the Health Occupations Department. Challenge exams will be scheduled upon request. A written exam is used to challenge theory courses. A competency test using respiratory therapy equipment under simulated conditions in the learning laboratory is used to challenge lab and clinical coursework.

Challenge applicants with previous respiratory therapy work experience under medical supervision must document at least 200 hours to challenge Term I coursework and another 200 hours to challenge Term II coursework. Those taking challenge exams must score at least 71% on each component to receive Term I credit. Challenge exams may be taken only once. Persons given challenge credit for Term I will be admitted in January for Term II on a space-available basis.

Challenge applicants successfully completing all Term I requirements may apply to challenge Term II coursework. Term II challenge applications will be accepted in the Health Occupations department and tests will be scheduled upon request.

Portions of Term III may be challenged depending on prior clinical work experiences which must total at least 600 hours under medical supervision. Dates for challenging Term III coursework will be scheduled on an individual basis.

Challenge and transfer students accepted must submit transcripts of prior education and proof of high school graduation of GED. They must also meet all prerequisites for admission into the program and have acceptable composite, math and scientific reasoning ACT scores if applicable. They must meet all prerequisites for admission to program including Arts & Sciences if applicable. They must pay required T-VI fees, purchase school uniforms and other needed equipment, and have a physical examination before admission.

Respiratory Therapist

Certificate Program with Associate in Science Degree Main Campus

Technician Graduate Completion (begins fall term 1991 only, then each summer term starting 1992)

Technician Student Advanced Placement (begins each summer term starting 1992)

The Respiratory Therapist Program includes theory, laboratory and clinical coursework at the advanced practitioner level. The curriculum includes instruction in cardiorespiratory anatomy, physiology and pathophysiology. Coursework includes the study of critical care medicine, evaluation of cardiopulmonary function, respiratory home care, pulmonary rehabilitation and emphasis on developing problem-solving and decision-making skills for the advanced practitioner.

The program includes instruction by faculty from the University of New Mexico Medical Center and School of Medicine. An associate in science degree is awarded with a certificate in respiratory care upon completion of the therapist curriculum, which includes Arts & Sciences requirements.

The Respiratory Therapist Program is accredited by the American Medical Association's Committee on Allied Health Education and Accreditation and the Joint Review Committee for Respiratory Therapy Education. Graduates of this program are eligible to take the National Board for Respiratory Care Certification and Registry examinations. Successful completion of the certification exam qualifies individuals as Licensed Respiratory Care Practitioners in New Mexico.

Sixteen applicants will be selected to start the Respiratory Therapist Program in fall term, 1991. Thereafter, the program will accept 16 applicants each summer term. Selection of students will be based upon documentation of admission requirements listed below. Selection criteria will include previous academic performance on coursework completed at an approved respiratory therapy technician program, and Arts & Sciences coursework required for completion of the associate in science degree. If the number of qualified applicants exceeds the number of positions available, preference will be given to those applicants who have completed required Arts & Sciences coursework.

In order to be considered for admission to the Respiratory Therapist Program, candidates must meet each of the following requirements:

- Complete a T-VI admission application form.
- Provide proof of high school graduation or GED certificate.
- Be a graduate of an approved respiratory therapy technician program with documented evidence of completed respiratory therapy coursework and prerequisite courses in math and basic sciences. Coursework completed in the technician program will be applied toward the associate in science degree with variations allowed depending upon the technician program curriculum.

Up to 30 credit hours will be awarded for completing respiratory technician courses (theory, lab and clinical).

At least 11 additional credit hours must be awarded for completion of math and basic science courses in the Respiratory Technician program. These courses will be considered prerequisite for admission to the program.

• Hold NBRC certification as a respiratory therapy technician. Note: non-certified graduates of AMA accredited technician programs may enter under written agreement to complete the NBRC certification exam during the first term of enrollment. Successful completion of this exam is a condition for continued enrollment in the therapist curriculum. Advanced placement technician students are excluded from this requirement.

 Complete a personal interview with a Respiratory Therapist Program faculty member after receiving a letter indicating admission qualifications have been met.

• After admission into the therapist program, submit a completed physical exam form.

Respiratory Therapist students pay a \$75 equipment fee when they begin the program to cover the cost of the required uniform, identification badges and parking fees. Additional costs include purchase of a stethoscope, bandage scissors and graduation pin, and the pre-entrance physical exam.

Arts & Sciences courses which are part of the Respiratory Therapist curriculum may be taken prior to entering the program. When a student enters the program,

credit will be given for courses with a final grade of C or better.

Students admitted to the program must earn a C or better in all courses to progress through the program and graduate.

Respiratory Therapist Program

		l i	Cr
			Hrs
RT	210	Advanced Respiratory Therapy I	3
RT	215L	Advanced Respiratory Therapy Lab I	1
RT	221C	Advanced Clinical Experiences I	3
RT	211	Advanced Respiratory Therapy II	3
RT	216L	Advanced Respiratory Therapy Lab II	l
RT	222C	Advanced Clinical Experiences II	3
RT	212	Advanced Respiratory Therapy III	4
RT	223C	Advanced Clinical Experiences III	30
		Total	20

Eleven credits of math and basic science coursework must be completed during the associate in science degree program, in addition to the minimum 11 credits in math and basic science coursework considered as prerequisite for admission. The following courses at T-VI are recommended to meet all math and basic science coursework required for the associate in science degree Respiratory Therapist Program:

Science Requirement—Biology: BIO 123 and BIO 124L Science Requirement—Chemistry: CHEM 111 and 112L

Science Requirement—Anatomy and Physiology: BIO 136 and BIO 139L

Science Requirement— Microbiology: BIO 239L

Math Requirement—Algebra: MATH 120 or MATH 121 Science Requirement—Physics': PHYS 102 or PHYS 151

'RTT 131—Physics of Respiratory Therapy is offered as part of the T-VI Respiratory Therapy Technician curriculum. It may be used by program graduates to meet the physics requirement in the associate degree program.

Twelve credits of approved courses in Communications, Humanities, Social and Behavioral Sciences, and Computer Science must be completed as part of the associate in science degree requirement. This coursework must include one three-credit course in each area. The following courses are recommended:

Communications Requirement—ENG 101
Humanities Requirement—PHIL 245
Social and Behavioral Science Requirement—SOC 101 or PSY 105
Computer Science Requirement—CSCI 101

Note: Additional college courses may be considered for transfer credit if completed at a regionally accredited college or university with a grade of C or better and equivalent content coverage of subject an credit hours. Official transcripts must be sent to the T-VI Records Office for consideration of transfer credit eligibility prior to admission to the program.

Respiratory Therapist Advanced Placement

There are three ways in which advanced standing can be granted to Respiratory Therapist applicants: transfer, challenge and Technician Student Advanced Placement.

Transfer: Transfer credit may be granted for equivalent coursework completed at a regionally accredited technical-vocational school, college or university. This may include the 11 credits required as prerequisite in math and basic science coursework taken for Graduate Technician Completion. It may also include the additional 11 credits in math and basic science as part of the associate in science degree requirements and the 12 credits of Arts & Sciences coursework.

Transfer credit will be granted for the 30 credit hours of professional coursework completed in the Respiratory Therapy Technician program, which is necessary for qualified Graduate Technician Completion applicants. Transfer credit awarded for Technician or Therapist coursework completed at other CAHEA/JRCRTE accredited programs, or for arts and science coursework from other institutions, will be given when the T-VI Records Office receives official transcripts showing a grade of C or better on equivalent courses.

Challenge: Respiratory Therapy Technicians who are certified by the National Board for Respiratory Care but are not graduates of approved technician programs may challenge courses. Qualified applicants to the associate in science degree Respiratory Therapist program must provide documentation of at least 11 credit hours in math and basic science. These applicants must also complete 30 credit hours of advanced standing covering technical courses of a respiratory therapy technician program through challenge examination. The written exam is used to challenge theory courses, and a competency exam in the learning lab is used to challenge lab and clinical courses. Persons wanting to challenge under this arrangement may apply at the T-VI Health Occupations Department office.

Technician graduates with documented work experience in Respiratory Therapy may apply to challenge portions of the Respiratory Therapist curriculum. Persons wanting to challenge under this arrangement may apply at the T-VI Health Occu-

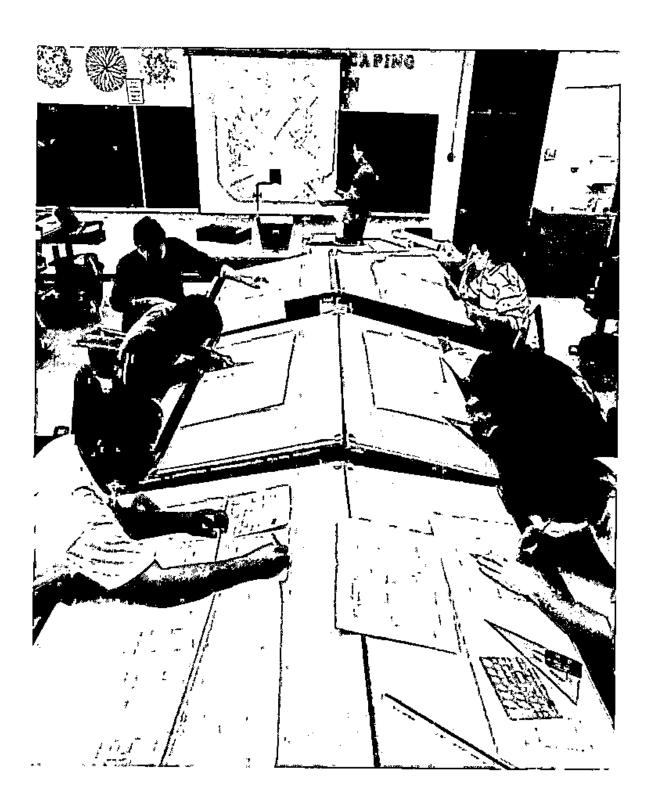
pations Department office.

Challenge and transfer applicants must submit transcripts of prior education and proof of high school graduation or GED. They must also meet all prerequisites for

admission including Arts & Sciences courses.

Technician Student Advanced Placement: This option is for students currently enrolled in CAHEA/JRCRTE accredited programs who have completed two terms of coursework and will be available starting summer term, 1992. Technician Student Advanced Placement into the Therapist level curriculum is offered on a space-available basis only. A maximum of 16 students will be accepted each summer term.

Selection criteria will include previous academic performance on coursework completed at an approved respiratory therapy technician program and Arts & Sciences coursework required for the associate in science degree. If the number of qualified applicants exceeds positions available, preference will be given to those with required coursework already completed. Technician Student Advanced Placement applicants must have documented completion of 11 credit hours of math and basic science courses in addition to the completed Technician professional courses in theory, lab and clinical. These advanced placement applicants must also meet all prerequisites for admission to the Therapist program, Technician students wanting to advance place under this arrangement may apply at the T-VI Health Occupations Department office.



Technologies

Programs in the Technologies Department are among the longest at the Institute. The time necessary to complete one of the Technologies programs will vary from 16 to 24 months depending on student work load. Technologies programs also have the highest math skill entry requirements. All first level math courses have a prerequisite of MATH 100 or equivalent.

Students in four programs—Electronics Technology, Instrumentation and Control Technology, Laser Electro-Optic Technology and Architectural/Engineering Drafting Technology—may choose to complete either an associate in applied science

degree or a certificate.

Because the Technologies programs are in high demand, interested persons should apply as early as possible. Electronics Engineering Technology and the 200 level courses of Laser Electro-Optic Technology are offered at the Montoya Campus only. The Business Computer Programming Technology program is offered at both campuses. Other Technologies programs are offered only at the Main Campus. There are beginning groups each term in all Technologies majors except Laser Electro-Optics, which starts a new group every other term. Civil and Surveying Technology and Design Drafting Engineering Technology may not begin groups in the summer.

In each of the programs, there are some courses offered during the evening hours. These courses can also be taken as part of a student's course of study. These courses are marked with the # footnote in program lists. A minimum of 12 students must

sign up for the course to be offered.

There are a number of optional courses and or elective courses available to Technologies students. At least 12 students must sign up for an optional course or elective course before it will be offered, and each student must meet the required prerequisites.

Textbook purchase is required of students enrolling in the Design Drafting Engineering Technology program, the Electronic Engineering Technology program, and in those courses offered in both the day and the evening with the same numbers.

Course descriptions for Technologies begin on page 186.

Architectural/Engineering Drafting Technology

Associate in Applied Science Degree/ Certificate Program Main Campus

Drafting can be an excellent employment skill for persons who like to draw, have construction experience or have a strong interest in building design or the construction process. The potential for advancement into jobs with increasing responsibility and wider scope can be good.

The Architectural/Engineering Drafting Technology program includes the principles of architectural and engineering graphics and the theory and practice of construction technology. Graduates are prepared for entry-level jobs as architectural or engineering drafting technicians in residential and commercial construction, and for estimating and sales positions with contractors, fabricators and suppliers.

Students use computer assisted drafting (CAD) software on microprocessors to do various types of drafting projects that are closely related to the laboratory courses.

The first term math course has a prerequisite of MATH 100 or equivalent. If a student takes MATH 100, it is recommended that the student also take the survey course in drafting from the Developmental Studies Department.

To receive a certificate in Architectural/Engineering Drafting Technology a student must complete all required ARDR courses and BA 111—Communications or ENG 101—Writing with Readings in Exposition and BA 131—Human Relations or PSY 105—Introduction to Psychology. To receive an associate degree in Architectural/Engineering Drafting Technology a student must complete all required ARDR courses and the required Arts & Sciences courses. A grade of C or better in each ARDR course is required for either a certificate or degree.

Students must purchasing their own drafting tools.

Entry into a course without the prerequisite may be allowed with the permission of the academic advisor.

Architectural/Engineering Drafting Technology Program

Technical Courses Required for Certificate and Associate in Applied Science Degree

			Cr Hr:
ARDR	102	Architectural Mathematics	5
*ARDR	103	Residential Materials and Methods	5
"ARDR	105A	Residential Drafting	3
and		1	,
*ARDR	105B	Residential Drafting	2
or			-
ARDR	105L	Residential Drafting	5
ARDR	106L	Introduction to CAD	3
ARDR	112	Architectural Trigonometry	5
ARDR	116	Non-Residential Materials and Methods	5
ARDR	117L	Architectural Drafting.	5
ARDR	118L	Architectural Drafting	3
ARDR	202	Structural Mathematics.	5
ARDR	205L	Structural Drafting.	5
ARDR	207L	Structural Drafting	3
ARDR	208	Energy Systems	5
ARDR	212L	M/E Systems Drafting	5
ARDR	215	M/E Systems Analysis	7
ARDR	216L	Structural Detailing.	3
ARDR	217	Project Management	3
ARDR	218L	M/E Systems CAD	3
		•	•
		Required Courses for Certificate	
BA	111	Communications (7 ¹ / ₂ weeks)	2
Of			
ENG	101	Writing with Readings in Exposition	3
and		1	
BA	131	Human Relations (71/2 weeks)	2
or			
PSY	105	Introduction to Psychology	3
		Total	80
		Provided A 4 8 G t G	
		Required Arts & Sciences Courses for Associate in Applied Science Degree	
ADT	260		_
ART	260	Architecture History: Ancient through Modern	_
COMM	221	Interpersonal Communications	3
Sir	10:	Martinian before the state of the	_
	101	Writing with Readings in Exposition	3
MATH	120	Intermediate Algebra	3
PHIL	156	Logic and Critical Thinking	3
PHYS	102	Introduction to Physics	3
		Total	95

Support or Elective Courses

•ARDR	101	Fundamentals of Computer Assisted Drafting	
ARDR	171	Architectural Design	3
*ARDR	172	Architectural Rendering	2
ARDR	173	Technical Sketching	2
ARDR	174	Housing	2
*ARDR	175	General Contractor Preparation	
ARDR	176	Orientation to the Construction Industry	
ARDR	271	Construction Management	
ARDR	272	Computer Estimating	3
ARDR	295	CAD for Professional Drafters	
ARDR	296	Special Problems	
ARDR	297	Supervised Work Experience	3

Business Computer Programming Technology

Certificate Program Main and Montoya Campuses

In this program, students learn to solve information and management problems using computer hardware and software. Graduates are prepared for jobs as entry-level business applications programmers, which can be the first step in a career in the computer field.

Computers currently used at T-VI are the IBM 4361 and IBM/XT/PS2 micro-computers and compatibles.

The 100 level courses will give students a sound background in fundamental skills used on a wide variety of computer and computer-related equipment. The 200 level courses continue to build computer application skills with emphasis on problem-solving techniques and the man-machine interface. A mainframe environment is used to teach three widely used business programming languages. Five other computer languages, used on either a mainframe or microcomputer, are offered as technical electives or optional courses. Many courses in the program use the microcomputer and/or the mainframe to assist in the instruction process.

If a student takes MATH 100 or lower, it is recommended that the student also take the survey course for data processing from the Developmental Studies Department rather than taking courses within the major.

A grade of C or better in each Business Computer Programming course is required for a certificate.

Students must pay a supply fee at the beginning of each term for some courses.

[&]quot;This course is available in the evening and must have a minimum number of students in order to be offered. The student must pass both the A and B courses with a C or better, in order to be given credit for the entire course.

Note: Students seeking a certificate are required to take BA 111—Communications or ENG 101—Writing with Readings in Exposition and BA 131—Human Relations or PSY 105—Introduction to Psychology to fulfill graduation requirements. It is recommended that these courses be taken at the beginning of the training program.

Optional courses may not be used to replace technical electives.

Entry into a course without the prerequisite may be allowed with the permission of the academic advisor.

Business Computer Programming Technology Program

			1	Cr Hrs
*CP	101A	ANSI COBOL		4
and *CP	101B	ANSI COBOL		3
or CP	101L	ANGL COROL		7
•CP	1012	Introduction to Computers		
*CP	103	Mathematics for Computer Pro-	grammers	4
CP	103	Data Processing Accounting I		
*CP	104 111A	Advanced ANGL COROL		4
- -	IIIA	Advanced Ansi Cobob		
and CP	111B	Advanced ANSL COROL		3
	1110	Advances Arthr Copola IIII		
CP or	1111.	Advanced ANSI COROL		7
*CP	1174	VSE ICI /VSAM/Litilities	1	4
-	[12A	ARE ICE ARMINOUNDS		
and CP	112B	VCE ICI /VSAM/Hilities		3
	112D	VSE JCD VSAMO Offices	1	
OI OI	112L	UCE IC! /VSAM/Hillities		7
CP		Data Decessing Accounting II		
CP	114 2011.	Jata Processing Accounting in	iques	3
CP	201L	Accombler Language Programs	ning	7
CP	2021	Duciness Systems Analysis and	Design	
CP		Danast Brogger Generator II		
CP	204L	Report Flogram Generator II .		_
CP	211L	Community System Software		
CP	212L	Dechar Programming and Co	rcepts .'	
、 ⁴ CP	213	Tasksiasi Clasting	ilicepts	_
		technical Electives		_

^{*}This course is available in the evening and must have a minimum number of students in order to be offered. The student must pass both the A and B courses with a C or better, in order to be given credit for the entire course.

		Required Courses for Certificate	
BA or	111	Communications (71/2 weeks)	2
ENG and	101	Writing with Readings in Exposition	3
BA or	131	Human Relations (71/2 weeks)	2
PSY	105	Introduction to Psychology	3
		Technical Electives: Two Required for Certificate	
*CP	176L	Total duration at Addition .	3
*CP	270L	Pascal Programming	3
CP	271L	BASIC Language Programming	_
CP	272L		3
		Total	$\frac{3}{75}$
		Optional Courses	
•CP	174L	BASIC Language Programming	3
*CP	175L		3
*CP	273L	roltran Programming	3
*CP	274L	Introduction to the UNIX Operating System	2
*CP	276	ADA Language Programming	3
CP	277	Operating Systems Design and Implementation with UNIX	3
*CP	278	Advanced C Language Programming	3
CP	296	Special Problems	3
CP	298	Cooperative Training	3

Civil and Surveying Technology

Certificate Program Main Campus

Civil and Surveying Technology provides students with job-entry skills as surveyors, cartographic technicians and design (civil) drafters. Positions are with surveying, mining, engineering and drafting organizations.

The program's laboratories contain modern drafting machines, drafting stations and stereoplotters. Field equipment includes theodolites, levels, total stations, electronic distance meters and GPS receivers. HP PC386 work stations, each with mouse, graphics CRT and plotter, are provided.

The program requires that instructional hours in the plane surveying course be alternated. During those times, students attend classes up to seven hours two days a week and four hours the remaining days.

Students must purchase their own drafting tools. A grade of C or better in each Civil and Surveying Technology course is required for a certificate.

Note: Students seeking a certificate are required to take BA 111—Communications or ENG 101—Writing with Readings in Exposition and BA 131—Human Relations or PSY 105—Introduction to Psychology to fulfill graduation requirements. It is recommended that these courses be taken at the beginning of the training program.

Entry into a course without the prerequisites may be allowed with the permission

of the academic advisor.

Civil and Surveying Technology Program

		·	Cr Hrs
		T I STATE TO T	7
C&S	101L	Civil and Surveying Lab/Theory I	7
C&S	102	Civil and Surveying Mathematics I	7
C&S	111	Cartographic Techniques Lab/Theory	4
C&S	112	Civil and Surveying Mathematics II.	
C&S	113	Plane Surveying 1	3
C&S T	203L	Plane Surveying II	5
C&S	204L	Photogrammetric Techniques Lab/Theory	2 5
C&S	206	Boundary Law and Public Land Surveys	
C&S	207L	Computer-Assisted Civil Drafting	2
C&S	211L	Civil Design Lab/Theory	7
C&S	213L	Plane Surveying III	4
C&S	216	COGO	v
C&S	218	Technical and Legal Communications	4
		Required Courses for Certificate	
BA	111	Communications (71/2 weeks)	2
ENG	101	Writing with Readings in Exposition	3
and BA	131	Human Relations (71/2 weeks)	
PSY	105	Introduction to Psychology	$\frac{3}{68}$
04.5	272	Support Courses Introduction to Computer Assisted Drafting	
C&S	273	Special Problems	_
C&S	296	Special Problems	

Design Drafting Engineering Technology

Associate in Applied Science Degree Main Campus

Design Drafting Engineering Technology is a complex field of design drafting for persons with a strong interest in electronics and/or mechanical design. The program contains three options: electronic drafting and design, tool design, and a generalist option containing both electronic and tool design. All options have a heavy emphasis on mechanical design.

The program integrates the concepts of mathematics and science into the technical courses. The use of computer assisted design drafting (CADD) is emphasized and applied throughout the program.

A well rounded curriculum enables graduates to seek employment with engineering and scientific research or manufacturing organizations. Modern drafting stations, drafting machines and other typical drafting equipment are used along with microcomputers. Students are encouraged to join the college chapter of the Society of Manufacturing Engineers (SME) and attend local SME education seminars or become student members of American Design Drafting Association (ADDA).

A grade of C or better in each design drafting course is required for a degree.

Students must buy their own textbooks, drafting tools and a full-function scientific calculator.

Entry into a course without the prerequisite may be allowed with the permission of the academic advisor.

Design Drafting Engineering Technology Program

			Cr
DDET	102L	Manufacturing Methods	Hrs
*DDET	104L	Introduction to Technical Drafting	4
DDET	105L	Basic Machine Tool	2
DDET	106L	Basic CADD.	3
*DDET	HIL	Mechanical Detailing	3
DDET	114L	Structured Computer Programming.	3
DDET	115L	Intermediate CADD	3
DDET	201L	Descriptive Geometry.	3
DDET	205L	Machine Design	4
DDET	21 I L	Electromechanical Drafting.	3
DDET	212	Applied Engineering Mechanics	3
DDET	214L	Materials Science.	4
DDET	215L	Technical Computer Applications	3
		7	3
Option 1 following	l : Electi ;:	ronic Drafting and Design emphasis: All of the required courses plus	the
DDET	116L	Basic Electronic Drafting	3
DDET	202L	Applied Electronic Drafting	3
DDET	208L	Advanced CADD.	3
			-

Obnor n	: 1001	Design emphasis: All of the required courses plus the following:	
DDET	206L	Jig and Fixture Design 4	
DDET	207L	Production Tooling Design	
DDET	216L	Production Tooling Design	
ontion T	his ont	Associate of Applied Science degree may be earned without declaring an ion requires a combination of courses from Options I and II totaling a not credit hours. Prerequisites and corequisites must be satisfied. Total	
"This cou order to	irse is a be offe	available in the evening and must have a minimum number of students in red.	
		Required Arts & Sciences Courses	
		for Associate in Applied Science Degree	
ENG	101	Writing with Readings in Exposition	
ENG	119	Technical Communications	
		Humanities/Social Science Elective	
MATH or	121	College Algebra3	
MATH	150	Advanced Algebra	
MATH	162	Calculus I 4	
or			
MATH	180	Elementary Calculus	
MATH	123	Trigonometry	
PHYS	151/	General Physics/Lab4	
	153L	Total71–75	;
		10131	
		Support Courses	
DDET	291	Special Projects in CADD	
DDET	296	Special Problems	
DDET	297	Special Problems 3 Cooperative Training 3 Welding Skills Improvement 3	
WELD	170	ticionis akina improventant reprint	
		Technical Elective	

Electromechanical Drafting Technology

Associate in Applied Science Degree Main Campus

This associate in applied science degree is offered to students who have graduated from the Electromechanical Drafting certificate program. This degree program will not be available after summer 1993.

To earn the degree, students must complete 19 or 20 credit hours of Arts & Sciences courses and the two technical courses listed below. Students may be required to take additional technical courses. Further information on this program is available from the Technologies Department.

Note: Persons wanting to begin studies in this field should refer to the Design Drafting Engineering Technology program on page 96.

Electromechanical Drafting Technology Program

Technical Courses Required for Associate in Applied Science Degree

			Cr Hrs
DDET	291	Advanced CADD	3
DDET	296	Special Projects	3
		Required Arts & Science Courses for Associate in Applied Science Degree	
ENG	101	Writing with Readings in Exposition	3
ENG	119	Technical Communications	3
MATH	121	College Algebra	3
or			
MATH	150	Advanced Algebra	3
MATH	162	Calculus I	4
MATH	180	Elementary Calculus	3
PHYS	151/	, omena,	3
	153L	General Physics/Lab	4
10			-
PHYS	160	General Physics	4
		Elective	3
		Elective	5 <u>-26</u>

Electronics Engineering Technology

Associate in Applied Science Degree Montoya Campus

The Electronics Engineering Technology program emphasizes the application of scientific and engineering methods along with related technical skills necessary to support engineering activity in research, development, production, maintenance and operation.

This program represents a rigorous, engineering-type course of study. Lectures, laboratory work and considerable homework provide the basis for developing the

necessary electronics skills to gain employment in a broad occupational area at levels between the electronics technician and the electrical engineer.

Laboratory facilities contain modern equipment for testing, troubleshooting, calibrating, analyzing and designing electronic circuits. Such circuits may be found in communications equipment, computers, electronic instruments and many other electronic devices.

Students applying for this program should be seriously interested in the study of electronics with emphasis on mathematics and science and have high standards of excellence.

Pre- or corequisites for each of the Engineering Technology courses may be waived by the academic advisor for a student who has related experience and/or course work. Credit for an EET course may be given if an official transcript from another institution indicates an equivalent course and is approved by the academic advisor and department dean. Credit for an EET course may be given by passing a challenge exam.

A grade of C or better in each EET course is required for a degree.

Students in this program are required to purchase all textbooks, laboratory manuals, calculator and drafting tool kit.

Electronics Engineering Technology Program

			Cr			
		}	Hrs			
EET	107L	Graphics and Analytical Methods	3			
EET	109L	Circuit Analysis I	5			
EET	113L	Structured Computer Programming	3			
EET	117L	Digital Electronics I	3			
EET	119L	Circuit Analysis II	5			
EET	207L	Digital Electronics II	3			
EET	208L	Microprocessors	4			
EET	209L	Electronic Devices	5			
EET	218L		3			
EET	219L	Electronic Systems	5			
		Technical Elective	3			
	Technical Electives					
EET	217	Pulsed Power I	3			
EET	220	Pulsed Power II	3			
EET	296	Special Problems	3			
EET	297	Cooperative Training	3			
IC.	216L		3			

Required Arts & Sciences Courses for Associate in Applied Science Degree

СНЕМ	111/	Introduction to Chemistry/Lab	4
OL			
CHEM	121L	General Chemistry	4
ENG	101	Writing with Readings in Exposition	3
ENG	119	Technical Communications	3
		Humanities/Social Science Elective	3
MATH	121	College Algebra	2
OL		B	,
MATH	150	Advanced Algebra	2
MATH	123	Trigonometry	3
MATH	162	Calculus I	4
OL	102		4
MATH	180	Elements of Calculus I	,
PHYS	151/	Elements of Carellas I	3
	153L	Physics/Lab	
ог	.,,,,	I hysical 20.	4
PHYS	160	Conoral Physics	
and	100	General Physics	4
PHYS	1621	Connect Physics 2 of	
LH12	103L	General Physics Lab	
		101at67.	-69

Electronics Technology

Associate in Applied Science Degree/ Certificate Program Main Campus

The Electronics Technology program, offering both certificate and associate degree options, provides the student with a broad base of skills in analog and digital electronics.

Training is provided in the fundamental concepts of electronics with emphasis on digital equipment such as computers and electronic control devices. Circuits which have application in the semiconductor, digital equipment manufacturing, measurement and control, communications and display industries are studied.

Laboratory facilities contain modern equipment for testing, troubleshooting, calibrating, analyzing and designing electronic circuits. Such circuits may be found in communications equipment, computers, electronic instruments and many other electronic devices.

Certificate program graduates who want to earn a degree must fulfill the Arts & Sciences and residency requirements and satisfy technical course requirements according to the catalog in effect when the degree work was started.

If a student takes MATH 100, it is recommended that the student also take the survey course for electronics from the Developmental Studies Department rather than courses from the major. A grade of C or better in each electronics course is required for a degree or certificate.

Note: Students seeking a certificate are required to take BA 111—Communications or ENG 101—Writing with Readings in Exposition and BA 131—Human Relations or PSY 105—Introduction to Psychology to fulfill graduation requirements. It is recommended that these courses be taken at the beginning of the training program.

Entry into a course without the prerequisite may be allowed with the permission

of the academic advisor.

Electronics Technology Program

Required Courses for Certificate or Associate Degree

	Reduited Contres in Ceruit	ALE OF ASSOCIATE DEBLEE	-
	-		Cr
		ı	Hrs
1024	Electropies Fundamentals		4
IUSA		. I	
	Et a seine Fundamentals	1	4
103B	Electronics Fundamentals		
		l	8
103L	Electronics Fundamentals		
104	Electronics Mathematics		
105L	Digital Circuits		
114A	Semiconductor Devices	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, ,
		1	3
114B	Semiconductor Devices		
		1	
114L	Semiconductor Devices		. 6
116L	Introduction to Microcompute	\$,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	. 3
117	Introduction to 1 ages		
	Electromechanical Devices		. 4
11011			
118B	Electromechanical Devices		. 3
1181.	Electromechanical Devices		. 7
	Electronic Circuits		. /
	Introduction to Microprocesso	s	. /
	Introduction to Computer Pro	dramming	
	Flectronic Applications		
	Troubleshooting Techniques	1	
	Advanced Microprocessors	1	. 7
212L	Advanced Wheroprocessors	T	
	103B 103L 104 105L 114A 114B 114L 116L 117 118A 118B 118L 202L 203L 204L 212L 214L	103A Electronics Fundamentals 103B Electronics Fundamentals 104 Electronics Mathematics 105L Digital Circuits 114A Semiconductor Devices 114B Semiconductor Devices 114L Semiconductor Devices 116L Introduction to Microcompute Introduction to Laser 118A Electromechanical Devices 118B Electromechanical Devices 118L Electromechanical Devices 202L Electronic Circuits 203L Introduction to Microprocessor 204L Introduction to Computer Pro Electronic Applications 2141 Troubleshooting Techniques	103L Electronics Fundamentals 104 Electronics Mathematics 105L Digital Circuits 114A Semiconductor Devices 114B Semiconductor Devices 116L Introduction to Microcomputers 117 Introduction to Laser 118A Electromechanical Devices 118B Electromechanical Devices 118L Electronic Circuits 1202L Electronic Circuits 1203L Introduction to Microprocessors 1204L Introduction to Computer Programming 1212L Electronic Applications 1214L Troubleshooting Techniques

This course is available in the evening and must have a minimum number of students in order to be offered. The student must pass both the A and B courses with a C or better, in order to be given credit for the entire course.

		Required Courses for Certificate	
BA	111	Communications (71/2 weeks)	4
or ENG and	101	Writing with Readings in Exposition	
BA or	131	Human Relations (71/2 weeks)	
PSY	105	Introduction to Psychology	3 70
'		Required Arts & Science Courses	
ENG		for Associate in Applied Science Degree	
ENG CHEM	119 111/	Technical Communications	3
	112L	Introduction to Chemistry/Lab	4
OF	1017		
CHEM	121L		4
3.F.ACOLT	1.0	numanities/Social Science Elective	3
MATH	162	Calculus I	4
Of			•
MATH	180	Elementary Calculus	3
PHYS	151/		-
	153L	Physics Lab.	4
, or			
PHYS	160	General Physics	4
		Total93-	<u>~</u>
		Optional Courses	
CP	274L	Introduction to the UNIX Occasion a	_
DDET	105L	Basic Machine Tool	2
EET	217		
EET	220	Pulsed Power II	3
ELEC	271		3
ELEC	272		3
ELEC	276L	Soldering Techniques (71/2 weeks)	3
ELEC	278	Modern Technological Advances	2
ELEC	280	Modern Technological Advances. Introduction to Quality Control	3
ELEC	281	Introduction to Quality Control Semiconductor Manufacturing Oversion	3
ELEC	296	Semiconductor Manufacturing Overview	3
IC	216L	Special Problems	
-~	FIOL	Industrial Systems	3

Instrumentation and Control Technology

Associate in Applied Science Degree/ Certificate Program Main Campus

The Instrumentation and Control Technology program provides students with jobentry skills to troubleshoot and repair automated or process control equipment and instrumentation. Students may earn an associate degree or certificate.

Topics covered include digital and analog circuitry, microcomputer applications software, electronic and fluid systems instrumentation, vacuum systems and robotics. Software packages include CAD, spreadsheets and word processing. The program meets in modern laboratories containing electronic laboratory benches and test instruments, oscilloscopes, signal generators, power supplies, digital trainers, microcomputers, servo trainers, hydraulic-preumatic and process control equipment and a student shop area.

The associate in applied science degree program provides graduates with additional science and technical skills for the support of engineering activities. Certificate program graduates who want to earn a degree must fulfill the Arts & Sciences and residency requirements and satisfy core requirements according to the catalog in effect when the degree work was started.

A grade of C or better in each electronics and instrumentation and control tech-

nology course is required for a degree or certificate.

If a student takes MATH 100, it is recommended that the student also take the survey course for Instrumentation and Coutrol from the Developmental Studies Department rather than courses from the major.

Note: Students seeking a certificate are required to take BA 111-Communications or ENG 101-Writing with Readings in Exposition and BA 131-Human Relations or PSY 105-Introduction to Psychology to fulfill graduation requirements. It is recommended that these courses be taken at the beginning of the training program.

Entry into a course without the prerequisite may be allowed with the permission

of the academic advisor.

Instrumentation and Control Technology Program

Required Courses for Certificate or Associate Degree

		-0	
			Cr
ELEC	103A	Electronics Fundamentals	Hrs 4
and	•		4
*ELEC or	103B	Electronics Fundamentals	4
ELEC	103L	Electronics Fundamentals	
*ELEC	104	Electronics Fundamentals Electronics Mathematics	8
*ELEC	105L	Digital Circuits	5
FELEC	114A	Semiconductor Devices	4 3
and			,
*ELEC	114B	Semiconductor Devices	3
ELEC	114L		_
ELEC	116L	Semiconductor Devices	6
ELEC	117	Introduction to Microcomputers. Introduction to Laser	3
ELEC	118A	Electromechanical Devices	4
and			4
*ELEC	118B	Electromechanical Devices	3
or ELEC	118L		-
ELEC	203L	Electromechanical Devices	7
IC	202L	Introduction to Microprocessors	7
IC	204L	Linear Circuits	7
ĺC	213L	Control Circuits	3
IC	214L	insurinciation	7 7
IC IC	215L	MICTOCONTRONEL INTELLECTING	3
iC	216L	Industrial Systems	3
*This con	urse is a		
order to	be offer	vailable in the evening and must have a minimum number of students red. The student must pass both the A and B courses with a C or better,	in
order to	be give	n credit for the entire course.	, in
ъ.		Required Courses for Certificate	
BA	111	Communications (71/2 weeks)	2
or ENG	101		_
and	101	Writing with Readings in Exposition	3
BA	131	Human Relations (71/2 weeks)	_
or			2
PSY	105	Introduction to Psychology	3
		Total	3
			-

Required Arts & Science Courses for Associate in Applied Science Degree

		tor trooperate to tropping	_	
ENG	119	Technical Communications		3
CHEM	1117			
	112L	Introduction to Chemistry/Lab	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	4
ог	***			
CHEM	121L	General Chemistry	_	4
CHEM	1211	Unmanities/Posial Science Plan	ive	3
NA ATTI	160			4
MATH	162	Calculus I		4
or				_
MATH	180	Elementary Calculus		3
PHYS	151/			
	153L	Physics/Lab		4
or		'		
PHYS	160	General Physics	<u>.</u>	4
			96	
		Optional Co	urses .	
СЪ	2741	_		2
CP	274L	Introduction to the UNIX Opera	ting System	2
DDET	105L	Introduction to the UNIX Opera Basic Machine Tool	ting System	2
DDET EET	105L 217	Introduction to the UNIX Opera Basic Machine Tool Pulsed Power I	ting System	2
DDET EET EET	105L 217 220	Introduction to the UNIX Opera Basic Machine Tool Pulsed Power I Pulsed Power II	ting System	2 3 3
DDET EET EET ELEC	105L 217 220 214L	Introduction to the UNIX Opera Basic Machine Tool Pulsed Power I Pulsed Power II Troubleshooting Techniques	ting System	2 3 3 3
DDET EET EET ELEC ELEC	105L 217 220 214L 271	Introduction to the UNIX Opera Basic Machine Tool Pulsed Power I Pulsed Power II Troubleshooting Techniques RF Fundamentals	ting System	2 3 3 3 3
DDET EET EET ELEC ELEC ELEC	105L 217 220 214L 271 272	Introduction to the UNIX Opera Basic Machine Tool Pulsed Power I Pulsed Power II Troubleshooting Techniques RF Fundamentals Telecommunications	ting System	2 3 3 3 3 3
DDET EET EET ELEC ELEC ELEC ELEC	105L 217 220 214L 271 272 276L	Introduction to the UNIX Opera Basic Machine Tool	ting System	2 3 3 3 3 2
DDET EET EET ELEC ELEC ELEC	105L 217 220 214L 271 272	Introduction to the UNIX Opera Basic Machine Tool Pulsed Power I Pulsed Power II Troubleshooting Techniques RF Fundamentals Telecommunications Soldering Techniques (7½ wee Modern Technological Advance	ting System	2 3 3 3 3 2 3
DDET EET EET ELEC ELEC ELEC ELEC	105L 217 220 214L 271 272 276L	Introduction to the UNIX Opera Basic Machine Tool	ting System	2 3 3 3 3 2 3 3
DDET EET ELEC ELEC ELEC ELEC ELEC	105L 217 220 214L 271 272 276L 278	Introduction to the UNIX Opera Basic Machine Tool	ting System	2 3 3 3 3 2 3 3 3 3
DDET EET ELEC ELEC ELEC ELEC ELEC ELEC	105L 217 220 214L 271 272 276L 278 280	Introduction to the UNIX Opera Basic Machine Tool	ting System	2 3 3 3 3 2 3 3

Laser Electro-Optic Technology

Associate in Applied Science Degree/ Certificate Program Main and Montoya Campuses

The technology of lasers and electro-optics requires electronics, digital, laser and optics training for persons interested in a career in this rapidly growing industry. Lasers and electro-optic devices are used in a variety of areas including construction and excavation, marking, etching, cutting and welding operations, communications systems, laboratory testing and measurement, data processing, photography, medicine, military and space projects, and research and development.

The program's facilities include modern classrooms and laboratories containing state-of-the-art lasers, lenses, mirrors and analytical test equipment.

The associate in applied science degree program provides graduates with additional science and technical skills for the support of engineering activities.

Certificate program graduates who want to earn a degree must fulfill the Arts & Sciences residency requirements and satisfy core requirements according to the catalog in effect when the degree work was started.

Beginning students are admitted every other term. All beginning students will take the electronics core courses at Main Campus and Laser Electro-Optic Technology courses at the Montoya Campus.

If a student takes MATH 100, it is recommended that the student also take the survey course for Laser Electro-Optic Technology from the Developmental Studies Department rather than courses from the major.

A grade of C or better in each Laser Electro-Optic Technology course and electronics core course is required for either a certificate or degree.

Note: Students seeking a certificate are required to take BA 111—Communications or ENG 101—Writing with Readings in Exposition and BA 131—Human Relations or PSY 105—Introduction to Psychology to fulfill graduation requirements. It is recommended that these courses be taken at the beginning of the training program.

Entry into a course without the prerequisite may be allowed with the permission of the academic advisor.

Laser Electro-Optic Technology Program

Required Courses for Certificate or Associate Degree

			Cr
			Hr
*ELEC	103A	Electronics Fundamentals	4
and			
*ELEC	103B	Electronics Fundamentals	4
OL			
ELEC	103L	Electronics Fundamentals	
*ELEC	104	Electronics Mathematics	5
*ELEC	105L	Digital Circuits	4
*ELEC	114A	Semiconductor Devices	3
and			
*ELEC	114B	Semiconductor Devices	3
or			
ELEC	114L	Semiconductor Devices	6
ELEC	116L	Introduction to Microcomputers	3
ELEC	117	Introduction to Laser	
*ELEC	118A	Electromechanical Devices	4
and			
*ELEC	118B	Electromechanical Devices	3
or			
ELEC	118L	Electromechanical Devices	7
LEOT	204L	Electronic Circuits	7
LEOT	205L	Advanced Laser Systems	
LEOT	206	Optics	
LEOT	208L		
LEUI	200L	Introduction to Microprocessors	4

order to	be offe	Advanced Microprocessors Electronic Systems Analysis Advanced Laser Systems with Laser Measurements	Applications	
		Required Courses f	or Cartificate	
BA	111	-		2
or	***	Communications (7 /2 weeks) .	,	_
ENG and	101	Writing with Readings in Expo	ition	3
BA or	131	•		
PSY	105	Introduction to Psychology		$\frac{3}{82}$
		Required Arts & Sci for Associate in Applied	ences Courses	
СНЕМ	111/ 112L	Introduction to Chemistry/Lab.		4
or CHEM	121L	General Chemistry	!	4
ENG	119	Technical Communications	tive	3
		Humanities/Social Science Elec	ive	3
MATH	162	Calculus I		4
or MATH	180	Elementary Calculus		3
PHYS	151/	Domentary Caredias	[•
	153L	Physics Lab		4
or PHYS	160	General Physics	,.,,,	4
and		•		•
PHYS	163L	General Physics Lab		102
		Support Co		_
DDET ELEC	105L 214L	Basic Machine Tool		2
ELEC	276L		s)	3
ELEC	277L	Industrial Systems (71/2 weeks)		3
ET	217	Pulsed Power I		3
ET	220	Pulsed Power II	h	3
LEOT LEOT	118L 296			2
LEUI	270	Special Floorenis		,



Trades & Service Occupations

Trades & Service Occupations is the largest skill cluster at T-VI. Most classes meet on the Main Campus in classrooms, indoor and outdoor lab spaces and live work areas. The Commercial Printing program is located at the Montoya Campus. Admission information is available at either campus.

Most programs accept new students at the beginning of each term. Some applicants may be interviewed by the program counselor during the admission process.

Students must furnish their own shop clothes that must be safe and appropriate for their particular programs. All students, instructors, instructional aides and visitors must wear approved safety glasses or goggles which conform to ANSI Z87.1 in lab and work areas where they are required.

Students are encouraged to participate in T-VI's chapter of the Vocational Industrial Clubs of America (VICA). VICA activities are an integral part of the curriculum.

Course descriptions for Trades & Service Occupations begin on page 208.

Entrance Requirements

Most Trades & Service Occupations programs have in common the following entrance requirements: be able to lift materials and equipment weighing 50 pounds and be free of allergies or health conditions which cannot be controlled and would endanger the student's or others' safety. A valid driver's license and good driving record are required by most employers. All students except those having acceptable previous college course work or degrees or minimum ACT or ASSET scores are required to take the admissions placement tests.

Specific requirements of individual programs are as follows:

Air Conditioning, Heating and Refrigeration: Must be free of chronic respiratory diseases and allergies to sheet metal fluxes and metals, and must have normal color differentiation.

Carpentry: Must be free of chronic wood or wood product allergies.

Commercial Printing: Must be free of chronic allergies to lubricants, solvents, inks and photographic chemicals, and must have normal color differentiation with near- and far-point depth perception.

Criminal Justice: Must be a high school graduate or possess a GED. Must purchase all textbooks and supplies for the program.

Culinary Arts: Must be free of chronic allergies to detergents and soap. Health requirement: To enroll in this field, it is necessary to present a certificate to T-VI stating that the student is free from tuberculosis in a transmissible form. The certificate must be obtained from and signed by a licensed physician no more than 90 calendar days before the start of classes. Students who do not have a regular primary care physician and who do not have health insurance may take the tuberculosis test at the T-VI Health Center and pay a \$25 fee to the cashier.

Electrical Trades: Must have normal color differentiation.

Environmental Protection Technology: Must purchase all textbooks and supplies for the program.

Food Service Management: Must purchase textbooks.

Fire Science: Must be a high school graduate or possess a GED. Must purchase all textbooks and supplies for the program.

Machine Tool Technology: Must be free of chronic respiratory diseases and allergies to oils, solvents and cutting fluids; must be able to stand on concrete floors for long periods of time; and have depth perception correctable in both eyes.

Plumbing: Must be free of chronic respiratory diseases and allergies to plumbing fluxes, oils, glues and plastic compounds.

Transportation Trades: Must be free of chronic respiratory diseases and allergies to fuels and solvents.

Truck Driving:

- —Must not have been convicted of or forfeited bond for more than four moving violations in the past three years.
- -Must not have more than one at fault, preventable accident in the past three years.
 - -Must not have been convicted of or forfeited bond for DWI or reckless driving.
- —Must have a valid New Mexico license authorizing operation of vehicles that he/she is to drive.
- —Must be able to pass a physical examination as set forth in Section 391.42 of the Federal Motor Carrier Safety Regulations. Students who do not have a regular primary care physician and do not have health insurance may take the physical at the T-VI Health Center and pay a fee of \$25 to the cashier.
 - —Must be at least 23 years old.

Applicants are required to provide a certified copy of their New Mexico driving record for the past five years and a medical examiner's certificate signed by a physician.

Welding: Must be free of chronic respiratory diseases and have depth perception correctable in both eyes.

Safety Note: It can be dangerous to wear contact lenses in any area where there are fumes from chemicals, solvents and gases. Affected students should plan to wear regular eyeglasses in classes where such hazards exist. Students who habitually endanger themselves or others may be suspended from T-VI.

Prerequisite Requirements: Students must earn a minimum grade of C to meet all course prerequisite requirements.

Graduation Requirements: Students must earn a minimum 2.0 grade point average and maintain a minimum grade of C in all required occupational courses.

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. Students may apply for this option during the final term.

This on-the-job experience is a training plan developed by the cooperating employer and T-VI instructional staff. The student must obtain the approval of the instructor, advisor and department dean, and must have an exit interview with the department counselor prior to beginning supervised work experience. Students may be required to take BA 256—Employment Procedures and Techniques as a corequisite or prerequisite.

The supervised work experience option may not qualify students for Veterans Administration benefits or other student financial aid. It is not an option for associate degree programs.

Apprenticeship Programs

All apprenticeship courses are evening or weekend offerings. New students are admitted only in fall term in the Commercial Carpentry, Plumbing and Sheet Metal Apprenticeship programs. This program may not qualify students for Veterans Administration benefits or other financial aid.

Commercial Carpentry Apprenticeship

Main Campus

The Commercial Carpentry Apprenticesh p program for persons currently employed in the industry is offered in conjunction with the Rio Grande Chapter of Associated Builders and Contractors Inc. (ABC).

The four-year program combines on-the-job experience with classroom instruction and provides the opportunity for qualified participants to become journeymen.

There is a \$20 registration fee each term. Students must purchase textbooks and instructional materials through the local ABC chapter.

Culinary Apprenticeship

Main Campus

The Culinary Apprenticeship program is offered for persons currently employed full-time in the food service industry.

The three-year program combines on-the-job experience with classroom instruction and results in certified cook skill levels. Beginning students are admitted each term as space permits.

There is a \$20 registration fee each term. Students must purchase a special textbook and instructional materials through the local chapter of the American Culinary Federation Rio Grande Valley Chapter.

Electrical Trades Apprenticeship

Main Campus

The Electrical Trades Apprenticeship program, for persons currently employed full time in the electrical industry, is offered in conjunction with the Independent Electrical Contractors (IEC).

The four-year program combines on-the-job experience with classroom instruction and provides the opportunity for participants to obtain New Mexico journeyman licenses.

There is a \$20 registration fee each term. Students must purchase books and instructional materials through the IEC office.

Plumbing Apprenticeship

Main Campus

The Plumbing Apprenticeship program, for persons currently employed full time in the mechanical trades (plumbing) industry, is offered in conjunction with the Rio Grande Chapter of Associated Builders and Contractors Inc. (ABC).

The four-year program combines on-the-job experience with classroom instruction and provides the opportunity for qualified participants to become journeymen.

There is a \$20 registration fee each term. Students must purchase textbooks and instructional materials through the local ABC chapter.

Sheet Metal Apprenticeship

Main Campus

The Sheet Metal Apprenticeship program, for persons currently employed full time in the sheet metal industry, is offered in conjunction with the Rio Grande Chapter of Associated Builders and Contractors Inc. (ABC).

The four-year program combines on-the-job experience with classroom instruction and provides the opportunity for participants to obtain New Mexico journeyman licenses.

There is a \$20 registration fee each term. Students must purchase textbooks and instructional materials through the local ABC chapter.

Elective Courses

At least 12 students must sign up and instructional space must be available before an elective course can be offered. As a result, elective courses may be canceled because of low enrollment. Courses may be offered in the evening when enrollment is sufficient. Not all courses are offered each term. Most are offered only at the Main Campus.

			Cr
		•	Hrs
ACHR	170	Pneumatic Control Systems	3
ACHR	172	Basic Air Conditioning, Heating and Refrigeration	3
AUTC	170	Transportation Trades Machining	3
AUTC	172	Transportation Trades Machining	1
AUTC	173	Air Care Mechanic	2
BA	256	Employment Procedures and Techniques	2
CJ	296	Special Topics	1-6
ELTR	150	Residential Wiring Circuitry	2
ELTR	160	Conduit Hand Bending Fundamentals	2
ELTR	171L	Pole Climbing	I
ELTR	250	Industrial Motor Control Circuity	2
ELTR	255	Industrial PC Motor Control	.3
ELTR	260	Fiber Optical Cable Installation	2
EPT	101	Emergency First Aid Response Occupational Safety	1
EPT	213	Occupational Safety	3
FS	296	Special Topics	1-6
FSMG	170L	Advanced Food Service Management	3
FSMG	171L	Food Service Nutrition	3
MATT	171	Precision Measurement	3
MATT	173	Machine Tool Technology Skills Improvement	3
MATT	174	Advanced Machine Tool Skills Improvement	3
PF	100	Physical Fitness	ı
PLMB	170	Energy Management/Solar Applications	3
PLMB	172	Backflow Prevention	3
PLMB	174	Heating Control Circuitry	3
PLMB	175	Journeyman Preparation	3
SCSE	170	Sportscraft Skills Improvement	3
TRDR	111	Materials Handling	3
WELD	170	Welding Skills Improvement	3
WELD	171	Advanced Welding Skills Improvement	3
WELD	296L	Welding Special Topics	1-2

Air Conditioning, Heating and Refrigeration

Certificate Program Main Campus

The Air Conditioning, Heating and Refrigeration program prepares students for entry into the installation, maintenance and service field. With on-the-job experience and field training, the graduate of this program should be able to advance quickly.

Training includes installing mechanical equipment, ductwork, piping and electrical controls; servicing various air conditioning, heating and refrigeration components; troubleshooting systems; and performing required preventive maintenance.

Most activities take place on campus, but some off-campus building sites are an integral part of the curriculum.

A student may leave the program when a training objective is reached and receive a proficiency certificate detailing the skills mastered.

Eligible students are encouraged to participate in the supervised work experience program.

Air Conditioning, Heating and Refrigeration students must pay an equipment fee of \$95 before entering ACHR 103L or 104L, \$74 before entering ACHR 114L or 115L, and \$74 before entering ACHR 201L.

Air Conditioning, Heating and Refrigeration Program

		•	Cr
			Hrs
*ACHR	103	Basic Refrigeration Theory	2
*ACHR	103L	Basic Refrigeration Lab	2
"ACHR	104	Basic Control Circuitry Theory	2
*ACHR	104L	Basic Air Conditioning Lab	2
*ACHR	105	Basic Air Conditioning Theory	2
*ACHR	105L	Basic Air Conditioning Lab	2
*ACHR	106	Basic Refrigeration Math	1
ACHR	114	Intermediate Heating Theory	2
*ACHR	114L	Intermediate Heating Lab	2
*ACHR	115	Intermediate Control Circuitry Theory	2
*ACHR	115L	Intermediate Control Circuitry Theory	2
*ACHR	116	Intermediate Air Conditioning Theory	2
*ACHR	116L	Intermediate Air Conditioning Lab	2
*ACHR	117	Intermediate ACHR Math	1
ACHR	201L	Air Conditioning, Heating and Refrigeration Theory/Control	1
	2012	Circuitry Lab III	9
ACHR	202L		-
	2020	Total	9 44
		avial ************************************	444

^{*}Course may be offered in the evening when enrollment is sufficient. Option: Supervised Work Experience.

Automotive Body Repair

Certificate Program Main Campus

The Automotive Body repair program prepares students for entry-level employment repairing collision damage on passenger and commercial vehicles. Proper safety procedures, work ethics and correct selection and use of tools and equipment are stressed.

Qualified students have the option to apply their skills in a supervised work

experience program with cooperating employers.

Students must pay a \$105 equipment fee before entering AUBO 104L, 105L, 106L, 107L, or 108L; \$79 before entering AUBO 114L, 115L, 116L, or 117L, and \$53 before AUBO 203L, 204L, 205L, 206L, or 207L.

Auto Body Repair Program

			·	Cr
		ì		Hrs
*AUBO	102	Math/Basic Electricity		3
*AUBO	103	Auto Body Theory 1		3
•AUBO	104L	Auto Body Welding 1		2
AUBO	105L	Body and Frame Construction		2
*AUBO	106L	Automotive Detailing		2
*AUBO	107L	Automotive Refinishing 1		2
*AUBO	108L	Estimating		1
*AUBO	112	Auto Body Theory II		3
*AUTC	113	Transportation Electronics		3
*AUBO	114L	Auto Body Welding Il	.,	2
*AUBO	115L	Body Panel Replacement		2
*AUBO	116L	Automotive Refinishing II	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2
*AUBO	117L	Glass Removal and Replacemen		1
*AUTC	118L			
AUBO	202	Auto Body Theory III		3
AUBO	203L	Auto Body Welding III		2
AUBO	204L	Major Collision Repair		2
AUBO	205L	Plastic Soft Parts Repair		2
AUBO	206L	Advanced Refinishing Technique	s	2
AUBO	207L	Corrosion Protection/Undercoati	ġg¦	_1
		Total		42

^{*}Course may be offered in the evening when enrollment is sufficient.

Option: Supervised Work Experience.

Automotive Technology

Certificate Program Main Campus

The Automotive Technology program is designed to provide individuals with the skills needed to diagnose and repair mechanical problems on automobiles and light trucks. Proper safety procedures along with the correct use and selection of hand tools and test equipment are stressed. The program is designed to qualify the successful student as an entry-level general automobile technician. This program does not accept new students every term.

The employment outlook for qualified auto technicians is excellent. Employment opportunities include such positions as basic servicing, general mechanic, specialist, service writer, shop foreman, service manager, sales representative and service station attendant.

Qualified students may have the option to apply their skills in a supervised work experience program with cooperating employers.

Students must pay an equipment fee of \$105 before entering AUTC 103L, 104L, or 105L; \$95 before entering AUTC 114L, or 115L, and \$95 before entering AUTC 201L.

Automotive Technology Program

			Cr
			Hrs
*AUTC	102	Math/Basic Electricity	3
*AUTC	103	Automotive Engine Overhaul Theory	2
*AUTC	103L	Automotive Engine Overhaul Lab	2
*AUTC	104	Automotive Brakes Theory	2
*AUTC	104L	Automotive Brakes Lab	2
*AUTC	105	Automotive Suspension and Alignment Theory	2
*AUTC	105L	Automotive Suspension and Alignment Lab	2
AUTC	113	Transportation Electronics	3
AUTC	114	Manual Transmissions and Axles Theory	3
*AUTC	114L	Manual Transmissions and Axles Lab	3
*AUTC	115	Automatic Transmission/Transaxle Theory	2
"AUTC	115L	Automatic Transmission/Transaxle Lab	
AUTC	118L	Automotive Air Conditioning	3
AUTC	201L	Automotive Technology Theory I ab III	2
AUIC	LUIL	Automotive Technology Theory/Lab III	15
		Total	46

^{*}Course may be offered in the evening when enrollment is sufficient. Option: Supervised Work Experience.

Baking

Certificate Program Main Campus

This food service specialty prepares 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 baking begins early in the morning. This program does not accept new students every term.

Baking meets in a lab furnished with commercial equipment and display cases. The program's products are sold in the T-VI food service areas.

Students may leave the program when a training objective is reached and receive a proficiency certificate detailing the skills mastered.

Baking students must pay an equipment fee of \$105 before entering BKNG 104L, 105L, 106L, or 107L; and \$32 before entering BKNG 113L, 114L, 115L, 116L, or 117L.

(Also see Food Service Management, page 125, and Quantity Food Preparation, page 128.)

Baking Program

				Cr
				Hrs
*BKNG	102			
*BKNG	103	Baking Theory	,	2
*BKNG	104L	Breads	_ ,	2
*BKNG	105L	Sweet Yeast Goods		2
*BKNG	106L	Cake Batters	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2
*BKNG	107L	Pies and Pastries		2
BKNG	112	Baking Theory II		2
BKNG	113L	Yeast Doughs	l	2
BKNG	114L	Batters		2
BKNG	115L	Pastries/Cookies		2
BKNG	116L	Icings and Fillings	[2
BKNG	117L	Cake Decorating		2
		Total	.	25

^{*}Course may be offered in the evening if enrollment is sufficient.

Carpentry

Certificate Program Main Campus

Ι

The Carpentry program provides students with job skills to enter the construction industry. Classes meet on and off campus and in indoor and outdoor labs specifically designed for cabinetmaking and residential construction.

The fundamentals of residential framing and tools of the trade are taught. Emphasis is on residential and light commercial work, maintenance and remodeling along with instruction on interior finish carpentry, basic construction and installation of cabinets and millwork.

A student may leave the program when a training objective has been reached and receive a proficiency certificate detailing the skills mastered.

Carpentry students must pay an equipment fee of \$105 before entering CARP 104L or 105L, and an additional \$74 before entering CARP 111L.

Carpentry Program

			Cr
į.			Hrs
*CARP	102	Carpentry Math/Blueprint Reading I	4
*CARP		Carpentry Theory I	
CARP	104L	Foundations and Framing	3
		Stairs and Exteriors	
		Carpentry Theory/Lab II	
CARP	112	Carpentry Math/Blueprint Reading II	3
		Total	

^{*}Course may be offered in the evening if enrollment is sufficient.

Commercial Printing

Certificate Program Montoya Campus

This program teaches entry-level skills for jobs in the offset printing industry or in-plant print/duplication shops.

The lab contains computers, phototypesetters, paste-up and stripping tables, process cameras, plate makers, offset duplicators and presses, paper cutters, folder and bindery machines and other equipment used in the industry.

When students leave the program, they receive a proficiency certificate listing the skills mastered.

Commercial Printing students must pay a personal equipment fee of \$32 before entering CMRP 104L, 105L, 106L, or 10 L.

Commercial Printing Program

		· ·		C,
				Hrs
*CMPR	102	Commercial Printing Math		2
*CMPR	103	Offset Theory I		3
*CMPR	104L	Graphics Studio		2
*CMPR	105L	Prepress Equipment and Techn	iques Lab	2
*CMPR	106L	Press and Bindery Lab	.,,,,	2
*CMPR	107L	Projects Lab		2
*CMPR	112	Commercial Printing Theory		2
*CMPR	113L	Desk Top Publishing	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2
*CMPR	114L	Estimating		2
*CMPR	115L	Production Printing		_4
		Total		23

^{*}Course may be offered in the evening if enrollment is sufficient.

Criminal Justice

Associate in Applied Science Degree Main Campus

This program provides basic instruction in the field of criminal justice. Students who have already received a certificate from an approved New Mexico law enforcement academy with which T-VI has an articulation agreement are given credit for appropriate courses in the core curriculum. These students may enter the degree program after meeting T-VI admission requirements. Credit for the core curriculum will be posted at the completion of all courses in the degree program.

Students must purchase their own textbooks and supplies.

Criminal Justice Program

			Cr Hrs
CI	101	Criminal Law and Procedure	3
CJ	102	Juvenile Justice and Procedure	3
CI	103	Probation and Parole	3
CI	104	Patrol Procedures.	3
CI	106	Police and Presentence Investigation Reports	1
CJ	109	Introduction to Security Services.	3
or			-
CJ	111	Traffic Investigation and Enforcement	3
CĴ	112	Criminal Investigation	3
ĊJ	113	Organized and White Collar Crime	3
CJ	114	Contemporary Enforcement Techniques	3
CI	115	Physical Conditioning	ī
ENG	101	Required Arts & Sciences Courses	
ENG	101	Writing with Readings in Exposition	3
SOC	111	Criminal Justice System.	3
MATH	120	Intermediate Algebra	3
CSCI	101	Computer Literacy.	3
ENG	119	Technical Communications	3
PSY		Psychology Elective (105 or higher)	3
SOC	101	Introduction to Sociology	3
SOC	280	Social Science Research	3
COMM		Communications Elective (101 or higher)	3
SOC	211	Social Problems	3
SOC	212	Juvenile Delinquency	3
SOC	215	Criminology	3
SOC	214	Sociology of Corrections	3
SOC	216	Ethnic and Minority Groups	_3
		Total	68

Diesel Mechanics

Certificate Program Main Campus

This program prepares students to work on a variety of diesel-powered equipment used in the trucking, heavy equipment and mining industries.

The program meets in working labs where students are introduced to a variety of diesel engines, electrical and hydraulic lest equipment, dynamometers, air conditioning equipment, drive train components, fuel injection test and calibration devices and related equipment.

The lab classes in this program consist of disassembly, evaluation, precision measurement, reassembly and testing of the following major components; engines, transmissions, drive units, electrical components, brake systems, hydraulic systems, air conditioning, transport refrigeration systems and fuel systems. The theory classes are utilized to present the operating principles and troubleshooting techniques of these components and systems.

A student may leave the program when a training objective is reached and receive a proficiency certificate detailing the skills completed.

Diesel Mechanics students must pay an equipment fee of \$105 before entering DIME 104L, 105L, or 106L; \$137 before entering DIME 111L; and \$137 before entering DIME 201L.

Diesel Mechanics Program

			•	Cr
				Hrs
*DIME	102	Math/Basic Electricity		3
*DIME	103			
*DIME	104L		mponent Repair	
*DIME				
*DIME	106L	Engine Tune-up and Testing		2
DIME	111L	Diesel Theory/Lab II		12
DIME	113	Transportation Electronics	* * • • • • • • • • • • • • • • •	3
DIME	201L	Diesel Theory/Lab III		15
		¥	<u> </u>	

^{*}Course may be offered in the evening if enrollment is sufficient.

Electrical Trades

Certificate Program Main Campus

This program provides students with entry-level skills for employment in the construction industry, electrical maintenance and related electrical trades.

Off-campus projects enable students to gain on-the-job experience in residential construction and electrical installation. On- and off-campus electrical wiring projects are incorporated into the program. These projects enable students to obtain experience with electrical work under the supervision of the instructor. A student may leave the program when a training objective is reached and receive a proficiency certificate detailing the skills mastered.

Electrical Trades students must pay a personal equipment fee of \$105 before entering ELTR 105L or 106L; \$90 before entering ELTR 115L or 116L; \$53 before entering ELTR 204L, 205L, or 206L, and \$53 for 211L.

Note: Students are required to take 7½-week human relations and communications courses or English 101 and Pyschology 105 to fulfill graduation requirements.

Electrical Trades Program

1			Cr Hrs
BA	131	Human Relations	
or			
ENG	101	Writing with Readings in Exposition	3
BA	111	Communications	2
or			
PSY	105	Introduction to Psychology	3
*ELTR	102	Electrical Math I	
*ELTR	104	Electrical Theory 1	4
*ELTR	105L	Electrical DC/AC Lab	3
*ELTR	106L	AC Circuitry, Motors, Generators	3
*ELTR	112	Electrical Math II	4
*ELTR	113	Residential Blueprint I	4
*ELTR	114	Electrical Theory II	_
ELTR	115L	Residential Wiring Lab	
ELTR	116L	Residential Services	
*ELTR	202	Commercial Blueprint II	
*ELTR	203	Electrical Theory III	
*ELTR	204	Electrical Motor Control	
*ELTR	205L	Industrial Motor Control Lab.	
*ELTR	206L	Industrial Power Distribution	
ELTR	211L	Electrical Trades Theory/Lab IV	
		Total	

^{*}Course may be offered in the evening if enrollment is sufficient. Option: Supervised Work Experience.

Environmental Protection Technology

Associate in Applied Science Degree Main Campus

The Environmental Protection Technology program provides basic classroom instruction in the diverse field of environmental protection and occupational safety from a health and safety perspective. The curriculum also provides coursework designed to upgrade individuals already employed in the field.

The student receives a broad understanding of environmental problems and physical science instruction to enter the field as an entry-level worker. Instruction is provided in biology, chemistry, physics, coology, environmental legislation, regulation compliance and abatement. The program addresses key areas of environmental protection including biological and hazardous waste, water quality protection, air quality protection, soil, domestic and industrial waste control, workplace safety, energy management and recycling.

Fulfillment of the degree requirements listed on page 31 of the catalog is required for graduation. All Arts & Sciences courses have a tuition charge. Science courses also have lab fees (see page 18). Students are required to purchase their own textbooks and instructional supplies.

Environmental Protection Technology Program

*EPT	111	Environmental Protection Technology I	Cr Hrs 4
*EPT	101	Emergency First Aid Response	1
EPT	173	Water Quality Protection	3
*EPT	213	Occupational Safety	3
EPT	232	Air Quality Protection	1
ОГ			
AUTC	172	Air Care Inspectors Certification	1
FS	203	Hazardous Materials	3
EPT	112	Emergency Preparedness and Response Training	2
EPT	211L	Environmental Protection Technology II/Lab	4
EPT	212	Energy and Waste Management	3
EPT	215	Environmental Protection Instrumentation	3
		Required Arts & Sciences Courses	
BIO	I11	Environmental Science	3
CHEM	111	Introduction to Chemistry	
CHEM	112L	Introduction to Chemistry Lab	1
CHEM	130L	Environmental Chemistry	3
PHYS	102	Introduction to Physics	3
MATH	120	Intermediate Algebra	3
BIO	123	Biology for Health Sciences	3
BIO	124L	Biology Lab for Health Sciences.	Ť
CHEM	212L	Integrated Organic Chemistry & Biochemistry	4

MATH 120 Intermediate Algebra	
BIO 231L Applied Environmental Biology	
COMM Communication Elective (101 or high	ier) 3
ENG 101 Writing with Reading in Exposition.	
CSCI 101 Computer Literacy	
Social Science/Humanities Elective (101 or higher) 3
ENG 119 Technical Communication	<u>3</u>
Total	

^{*}Course may be offered in the evening if enrollment is sufficient.

Fire Science

Associate in Applied Science Degree Main Campus

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The Fire Science program provides basic classroom instruction in the field of fire protection. Students earn an associate degree.

The curriculum covered in the advanced courses provides additional course work designed to train the student for upper-level positions in fire protection. T-VI has an articulation agreement with the New Mexico Firefighters Academy in Socorro which currently covers eight classes. Enrolled T-VI students can receive degree credit for NMFA courses covered by the articulation agreement.

Students are required to purchase their own textbooks and instructional supplies.

Fire Science Program

			Cr
			Hrs
EMS	160L	Emergency Medical Technician	6
EPT	213	Occupational Safety	3
*FS	102	Fire Service Organization	3
*FS	. 103	Introduction to Fire Science	
•FS	111	Fire Prevention	3
•FS	112	Building Construction	3
*FS	201	Fire Protection Systems	3
FS	202	Managing Community Fire Protection	3
*FS	203	Hazardous Material	3
*FS	211	Incident Command and Control	. 3
*FS	212	Fire Investigation	3
•FS	213	Industrial Fire Protection	3
*FS	214	Facilities Inspection	

Required Arts & Sciences Courses

ENG	101	Writing with Readings in Expesition	3
SOC	101	Introduction to Sociology	3
ENG	119	Technical Communications	
PHYS	102	Introduction to Physics	
PSY		Psychology Elective (105 or higher)	
CHEM	111/		
	112L	Introduction to Chemistry/Lab	4
COMM		Communications Elective (101 or higher)	3
MATH	120	Intermediate Algebra	3
CSCI	101	Computer Literacy	3
SOC	216	Race and Ethnic Groups	3
		Total	7 2
			-

^{*}Courses may be offered in the evening if enrollment is sufficient.

Food Service Management

Certificate Program Main Campus

This program is available to persons employed in the hospitality/food service field who want to learn the skills necessary to become entry-level supervisors or managers.

Classroom instruction includes theory in human relations, supervision and business practices. The supervised work experience portion of the program is established with a cooperating employer under the supervision of the instructor.

This program may not qualify students for Veterans Administration training benefits or other student financial aid.

(Also see Baking, page 117, and Quantity Food Preparation, page 128.)

Food Service Management Program

		•		Cr
				Hrs
*FSMG	102	Operations Management		3
*FSMG	103	Human Relations		3
*FSMG	104	Marketing/Cost Control Manageme	ent	3
FSMG		Supervised Work Experience		4
		Total	*	13
			P	

^{*}Course may be offered in the evening if enrollment is sufficient.

Machine Tool Technology

Certificate Program Main Campus

This program qualifies students for job entry as machine tool operators.

Students learn the fundamental operations of various machine tools. Lab equipment includes micrometers, gages, drill presses, hand tools, engine lathes, milling machines, numerically controlled turning and machining centers and other equipment used throughout the metal working industry.

A student may leave the program when a training objective has been reached and receive a proficiency certificate detailing the skills mastered.

Machine Tool Technology students must pay an equipment fee of \$105 before entering MATT 105L, 106L, or 107L; \$84 before entering MATT 111L; and \$74 before entering MATT 201L.

Machine Tool Technology Program

			Cr
			Hrs
*MATT	102	Machine Tool Technology Mathematics 1	2
"MATT	103	Machine Tool Technology Theory I	2
*MATT	104	Machine Tool Technology Blueprint Reading 1	2
*MATT	105L	Engine Lathe Principles	3
*MATT	106L	Milling Machine Principles	3
*MATT	107L	Basic Machine Tool Problems	
MATT	111L	Machine Tool Technology Theory/Lab II	12
MATT	112	Machine Tool Technology Math/Blueprint Reading II	3
MATT	113	Numerical Control Programming 1	3
MATT	201L	Machine Tool Technology Theory/Lab III	12
MATT	213	Numerical Control Programming II	_3
		Total	

^{*}Course may be offered in the evening if enrollment is sufficient. Option: Supervised Work Experience.

Plumbing

Certificate Program Main Campus

The Plumbing program provides the technical knowledge and occupational skills necessary to enter the plumbing industry. This program does not accept new students every term.

Instruction is in the fundamentals of layout, assembly and installation; nomenclature of tools and materials; and practice with the tools of the trade.

Emphasis is on residential and light commercial work, maintenance and remodeling; installation of fixtures; alteration, planning and coordination of the job; repair of piping systems; installation of water, soil and vent lines; and application of codes.

A student may leave the program when a training objective has been reached and receive a proficiency certificate detailing the skills mastered.

Plumbing students must pay an equipment fee of \$105 before entering PLMB 103L and \$74 before entering PLMB 111L.

Plumbing Program |

				C/
			t .	Hrs
*PLMB	103	Safety and Tools Theory	*******	2
*PLMB	103L	Safety and Tools Lab	******	2
*PLMB	104		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
*PLMB	105			
*PLMB	105L		******	
*PLMB	106			
*PLMB	107			
*PLMB	107L			
PLMB	111L			
PLMB	112	Plumbing Math/Blueprint Reading	п	3
		Total	II	29

^{*}Course may be offered in the evening if enrollment is sufficient.

Quantity Food Preparation

Certificate Program Main Campus

Quantity Food Preparation emphasizes nutritional food preparation and prepares students for entry into the rapidly growing food industry—as sauté cooks after the first term or dinner cooks upon completion of the full program.

Classes are held in industrial kitchens. Students prepare food for and operate a cafeteria line including cash registers.

Advanced students operate the Student Specialties program, a fine dining restaurant open to the public by reservation only (see page 37).

A student may leave the program when a training objective has been reached and receive a proficiency certificate detailing the skills mastered.

Graduates are encouraged to enroll in the Baking program, as space permits, to gain an additional job skill which may be helpful in their careers.

Quantity Food Preparation students must pay an equipment fee of \$105 before entering QUFD 104L, 105L, 106L or 107L, and another \$84 before entering QUFD 113L, 114L, 115L, 116L, 117L, or 118L.

(Also see Baking, page 117, and Food Service Management, page 125.)

Quantity Food Preparation Program

		•	Cr
			Hrs
*QUFD	102	Food Service Math	3
'QUFD	103	Quantity Food Theory 1	2
*QUFD	104L	Buffet Procedures	_
*QUFD	105L	Salad and Pantry	2
*QUFD	106L	Dinner	2
*QUFD	107L	Fry	2
QUFD	112	Quantity Food Theory II	3
·QUFD	113L	Dining Room Skills	1
QUFD	114L	Cold Preparation	2
QUFD	115L	Stocks and Sauces-Sous Chef	
QUFD	116L	Entree (Meat Preparation)	2
QUFD	117L	Entree (Fish Preparation)	2
QUFD	118L	Garde Manger—Competition	_2
-		Total	27

^{*}Course may be offered in the evening if enrollment is sufficient.

Sportscraft/Small Engine Mechanics

Certificate Program Main Campus

The Sportscraft/Small Engine Mechanics program provides entry-level skills needed to diagnose and repair problems on recreational vehicles, industrial equipment and outdoor power products. Proper safety procedures along with the correct use and selection of handtools and test equipment are stressed.

Employment opportunities include such positions as general mechanic, specialist, service writer, service manager, shop foreman and sales representative. Graduates may seek employment at agricultural implement dealerships, park commissions, landscape firms, equipment rental shops, construction and industrial companies, department stores, recreational vehicle sales and service shops.

Qualified students have the option to apply their skills in a supervised work experience program with cooperating employers.

Students may leave the program when a training objective is reached and receive a proficiency certificate detailing the skills mastered.

Students must pay an equipment fee of \$105 before entering SCSE 104L, 105L, or 106L; \$100 before entering SCSE 111L, and \$95 before entering SCSE 201L.

Sportscraft/Small Engine Mechanics Program

			ı	Cr
			,	Hrs
*SCSE	102	Math/Basic Electricity		3
*SCSE	103	Sportscraft/Small Engine Theory I	**********	3
*SCSE	104L	Engine Service and Overhaul Lab	Four Stroke Cycle	3
*SCSE	105L	Engine Service and Overhaul Lab	Two Stroke Cycle	2
*SCSE	106L	Fuel Systems		
*SCSE	107	Management Skills		
SCSE	111L	Sportscraft/Small Engine Theory/L		
SCSE	113	Transportation Electronics		3
SCSE	201L	Sportscraft/Small Engine Theory/L	ab III	15
		Total		44
				- •

^{*}Course may be offered in the evening if enrollment is sufficient.

Truck Driving

Certificate Program Main Campus

The Truck Driving program provides basic instruction required to become a professional truck driver.

Students learn how to handle a tractor trailer safely and efficiently. The program is designed for students who are already licensed as automobile drivers in New Mexico. The goal of the program is to provide the basic instruction and skill development required to test for the commercial driver's license needed to operate tractor trailers.

Students must pay a nonrefundable fee of \$105 for the course. The program is accredited by PTDIA (Professional Truck Drivers Institute of America).

This program may not qualify students for Veterans Administration benefits or other financial aid.

Truck Driving Program

			Cr
			Hr
TRDR	104L	Truck Driving Theory/Lab	<u>15</u>
		Total	15

Welding

Certificate Program Main Campus

The Welding program qualifies students for entry-level employment in the metalsprocessing industry. Specific welding qualification is the goal of each term. This program admits students only once a year for the fall term.

Students study, practice and qualify in oxyacetylene welding. Instruction also is provided in shielded metal-arc welding and gas metal-arc welding. Qualification tests are given in shielded metal-arc welding and gas metal-arc welding. Tests are given in pipe welding and gas tungsten-arc welding to acquaint the student with standard operating procedures for various qualifications. Students must be making progress on these tests to qualify for supervised work experience. Instruction also is offered on welding fabrication and materials testing.

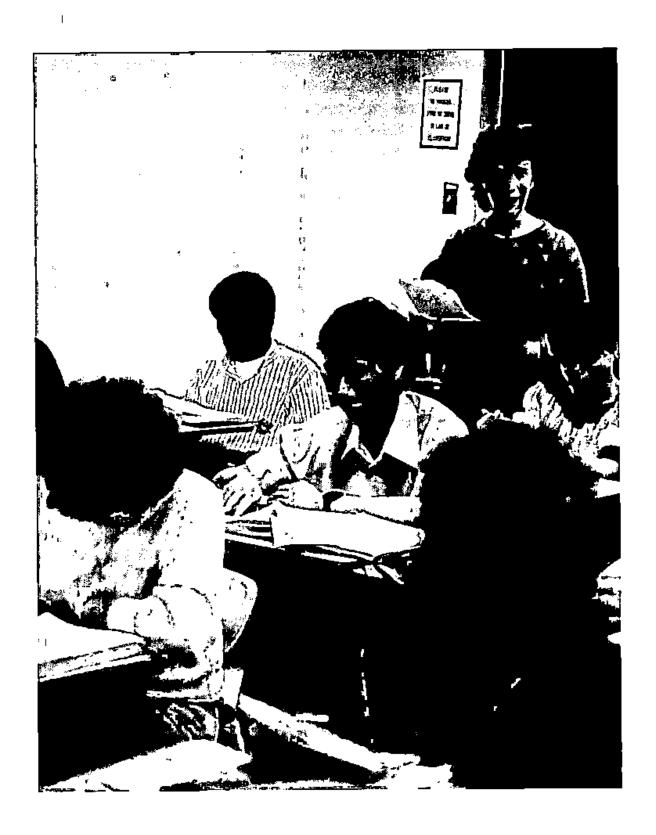
A student may leave the program when a training objective is reached and receive a proficiency certificate detailing the skills mastered.

Welding students must pay a personal equipment fee of \$105 before entering the program.

Welding Program

				C,
			. 1	Hrs
•WELD	102	Welding Mathematics I	*************************	2
•WELD	103		******	
*WELD	104	Welding Blueprint Reading I		2
*WELD	105L			
*WELD	106L	Introduction to Arc Welding		3
WELD	111L	Welding Metallurgy Theory/Lab	II	12
WELD		Welding Math/Blueprint Reading	II	3
WELD	202L		ш	
WELD	202	Blueprint Reading III		. 3
	_	Total		45
		AVIMA # \$4 # \$ # \$ # \$ # \$ # # # # # # # # #		

^{*}Course may be offered in the evening if enrollment is sufficient. Option: Supervised Work Experience.



Adult Education

T-VI's Adult Education program provides free basic courses which can lead to successful completion of higher education. Adult Education courses include preparation for citizenship, English as a second language, basic skills, GED preparation, enrichment clusters and the Vocational Enrichment Program. These courses offer students opportunity to find better jobs and to improve themselves.

Hablamos Espanol: El programa de Educación para Adultos ofrece la oportunidad al alumnado de tomar cursos de educación elemental, los cuales pudiésen conducir a la terminación satisfactoria de una educación superior. Los cursos que dicho departamento ofrece son los siguientes: ectura y escritura, aritmética, inglés como segundo idioma, clases de ciudadanía y cursos preparatorios para el exámen de GED. Estos cursos brindan al alumno la oportunidad de superarse personalmente asi como la de obtener un empleo mejor remunerado. La instrucción es absolutamente gratuita.

Registration: Persons wanting to take an Adult Education course should begin by registering in person at either T-VI campus. On Main Campus, registration is in the Prep Building, Room P-1. On the Montoya Campus, registration is in Room H-100. Adult Education courses follow the T-VI schedule, with 15-week terms beginning in September, January and May. Registration begins one month before courses start. A staff member will help with course selection to meet individual needs and schedules. During the term, staff is available at both Main and Montoya campuses Monday through Thursday from 8 a.m. to 9 p.m. and Friday from 8 a.m. to 5 p.m.

Locations: Adult Education courses are offered at T-VI's Main and Montoya campuses and other locations throughout the Albuquerque area. Current off-campus sites include:

Alamosa Elementary School, 6500 Sunset Gardens Rd. SW Barcelona Elementary School, 2311 Barcelona Rd. SW Canoncito Community School, Canoncito Dolores Gonzales Elementary School, 900 Atlantic Ave. SW East Central Multi-Service Center, 7525 Zuni SE El Buen Samaritano, 700 Granite NW Emerson Elementary School, 620 Georgia SE Eugene Field Elementary School, 700 Edith Blvd. SE
Garfield Middle School, 3501 Sixth NW
Holy Family School, 562 Atrisco SW
John Marshall Multi-Service Center, 1500 Walter SE
La Mesa Elementary School, 7500 Copper NE
Los Padillas Community Center, 2117 Los Padillas Rd. SW
Polk Middle School, 2220 Raymac SW
Reginald Chavez Elementary School, 2700 Mountain Rd. NW
Rio Grande High School, 2300 Arenal SW
San Jose Cursillo Center, 2401 Broadway SE
Valle Vista Elementary School, 1700 Mae Ave. SW
Washington Middle School, 1101 Park Ave. SW

Persons or groups interested in additional Adult Education courses in the community should contact the T-VI Adult Education office. It may be possible for T-VI to provide courses at locations not listed here.

Expenses: There are no tuition charges or fees for Adult Education courses. Textbooks are provided free to students.

Standards of Progress: Students must attend at least 80 percent of the course sessions to receive a certificate. No letter grades are given.

Attendance: Teachers take attendance at each course session and turn in monthly absence reports. If a student is absent four course sessions in a row, the teacher tries to contact the student. A student may be dropped from the course after four consecutive absences. Students who have missed or dropped classes are encouraged to go to the Adult Learning Laboratory to continue their studies.

Student Records: T-VI maintains permanent records which include the date a student enrolled in a course, date completed or dropped, total number of course hours and hours attended, and whether a certificate was issued to the student. Transcripts are furnished upon student request to the Adult Education Office. The first transcript is free; a fee is charged for any additional transcripts. At least 48 hours must be allowed to process transcript requests.

English as a Second Language

ESL: English as a second language courses are for persons learning to speak English. Most of the coursework is in speaking and listening although some written work is given.

Beginning English as a Second Language: This course is for students who do not speak English and for those who have never studied English before. The course uses a conversational approach to learning English.

Intermediate English as a Second Language: This course is for students who have completed Beginning ESL or persons who speak some English. It is a continuation of the beginning course with emphasis on speaking and writing.

Advanced English as a Second Language: Students who have had a previous conversational English course and persons who can speak some English but need additional practice may take this course. Speaking, writing and basic grammar are taught.

Basic Skills

These courses offer a general review of grammar, spelling, basic mathematics and reading improvement.

Beginning Literacy: This course helps students learn the basic skills for reading and writing in English. It is especially for those with little formal education or whose language does not use the same written alphabet as English. The course includes letter formation (printing and cursive), relations between English sounds and letters, reading and writing single words and short sentences, and filling out short application forms.

Reading Improvement Skills: This course is for students who want to practice and improve their reading skills in popular and classical literature, social studies, natural science, and word problem solving in mathematics. This course is for students who can read but who want to improve their comprehension and confidence. Materials will be relevant to students' life experiences, emphasizing higher level thinking processes and analytical strategies. Instruction will be primarily individualized. Areas covered in this course include vocabulary, spelling, finding main ideas and supporting details, making inferences, drawing conclusions, and applying ideas. In addition, students will learn to make judgments about the validity or accuracy of information or methods.

Writing Improvement Skills: This course is for students who want to improve or develop their skills in writing standard English. Instruction will be general to meet the students' individual needs in writing. Students will learn basic grammar, sentence structure, and how to recognize and correct errors. Students will learn about the structure of paragraphs and to write a composition so that the intended meaning is correctly and clearly stated. Students will learn to think logically and present ideas in proper sequence. The course will emphasize topics which are relevant to adults.

Basic Mathematics Skills: This course is for students who want to develop and improve their skills in basic mathematics. Students are not required to have any prior knowledge of mathematics to enter this class. Instruction is primarily individualized. Instruction and materials will stress real life situations and practical applications of mathematical skills. Areas covered in this course include numbers, basic operations, measurement, percents, ratios and proportion, graphs, practical geometry, basic algebraic concepts, basic statistical concepts, problem-solving and logical reasoning. Instruction is self-paced and students may progress at their own rate.

GED Preparation

This program prepares students for the General Educational Development (GED) examination for a high school equivalency diploma. The five areas covered for the GED exam are writing skills, social studies, science, literature and mathematics. A student needs to register for any of the following as needed:

- Reading Improvement Skills (covers social science, science, and literature)
- Writing Improvement Skills
- Basic Mathematics Skills

These courses are planned for individual instruction and may be completed at the student's own pace. Students are encouraged to take the GED examination at the end of the term, but those with demonstrated ability may take the test earlier with instructor recommendation. All books are furnished to the student free. The GED test fee is \$2.25.

Prerequisite: Persons wanting to take the GED exam or GED preparation courses must be at least 18 years old and must not be enrolled in any high school. A person who is 17 years old may enroll only if released from the New Mexico State Compulsory School Attendance Law and if granted a GED Underage Permission Form. Forms are available in the Testing Center at both T-VI campuses. For additional information, please call 768-0550 at the Main Campus or 271-4260 at the Joseph M. Montoya Campus.

It is recommended that students take a pre-test. These pre-tests are given at the Main Campus at scheduled times. Please call 768-0492 for additional information to reserve a place for a particular test session.

The pre-test is administered at the Joseph M. Montoya Campus on an individual basis. Call 271-4204 for information.

Enrichment Clusters

These are short-term, intense, highly focused classes organized to meet the specific needs of Adult Education students. They meet Friday mornings in two-hour blocks. Topics and titles change from time to time according to the indicated needs of our students.

T-VI Orientation: This is a course to acquaint students with the various offerings and services at T-VI and how to find the education you need. Written information is provided and tours are conducted at each campus.

Study Skills: A course for persons who need to learn or improve study habits. Time management and organizational techniques are covered.

English as a Second Language (ESL) Conversation: A supplement to ESL courses providing practice in speaking and using the English language and its idioms. One of the most fun courses on campus for ESL students.

Test-Taking Tips: Guidance on taking tests effectively. Helps with the best approach to the different kinds of tests one may encounter. Gives tips on how to raise your scores on all types of tests.

Math Anxiety: How to conquer those unfounded fears. This rational approach to math points out how math is used in our various daily transactions. There is no need for fear.

Literacy for ESL: This course helps students learn the most basic skills for reading and writing in English. It is especially intended for those whose language does not use the same written alphabet as English!

Spelling and Basic Grammar Review: A review of the important spelling and grammar rules including capitalization, purctuation, subject/verb agreement and plain good usage.

Vocational Enrichment Program

The Vocational Enrichment Program (VHP) provides vocational credit courses for high school students as well as for adults at Albuquerque public high schools. These courses are offered in many subject areas and are taught after regular school hours. Instructors for the Vocational Enrichment Program are certified as secondary education instructors by the state of New Mexico and are usually members of the regular faculty of that high school.

Course lists and additional information are available from high school counselors and both T-VI Adult Education offices. VEP courses are available at all public high schools except Albuquerque High School.



Course Descriptions

Developmental Studies

Mathematics

Preparatory students are placed in math courses that best meet their needs, interests and abilities. Students' scores on the ACT (see page 8) and/or a math advisement test are used to assist in determining in which classes students should enroll.

MATH 092—Introduction to the Scientific Calculator (2 cr)

This 71/2-week course, offered twice each term, introduces the student to scientific and technical operations on Sharp, Casio and Hewlett Packard calculators. Designed primarily for students enrolled in or preparing for Technologies or Trades, the course includes algebraic operating method, reverse operating logic, introduction to programming, hexadecimal/decimal conversions, trigonometric functions and coordinate systems, logarithms, multiple memory problems and applications for mathematics, physics, electronics and mechanics. The class requires strong basic math skills. This course is not eligible for support by the Veterans Administration.

MATH 098—Basic College Arithmetic (3 cr)

This course provides small group instruction in basic arithmetic skills: whole numbers, common fractions, decimal fractions, and percents. Students will be introduced to problem solving techniques, and word problems will be introduced in each skill area. The course is offered in both self-paced and lecture formats. Students who satisfactorily complete MATH 098 then take MATH 099.

MATH 099—Basic College Mathematics (4 cr)

This course is offered for students entering programs of study in Business Occupations, Health Occupations, Technologies or Trades. A review of subject matter in this course will also be helpful to students wishing to continue studying math and preparing for Elementary Algebra.

This course begins with an overview of basic mathematics and includes special or advanced topics needed for the student's selected major, such as calculator usage, ratio

and proportion, data representation, geometric concepts, measurement (U.S. and metric), real number system concepts, signed numbers and linear equations in one variable. The course is offered in both self-paced and lecture formats. MATH 099 satisfies prerequisite requirements for MATH 100.

MATH 099L-Lab for Basic College Mathematics (0 cr)

(Corequisite: MATH 099) Computer assisted/tutorial laboratory exercises in basic mathematics, as well as special topics needed for the student's selected occupational major. This lab meets two hours per week.

MATH 100A—Elementary Algebra for College Students (4 cr)

This course is for students who are not prepared to enter Intermediate Algebra. The course begins with a brief review of basic math and progresses to operations involving numbers, polynomials, linear equations, factoring, formulas, graphing and word problems. The course is offered in both self-paced and lecture formats. MATH 100 meets prerequisite requirements for MATH 120. Successful completion of MATH 100 is required of any student whose score on the ACT is below 16.

MATH 100L-Lab for Elementary Algebra for College Students (0 cr)

(Corequisite: MATH 100) Computer assisted/tutorial laboratory exercises to cover a variety of beginning Algebra topics. This lab meets two hours per week.

Reading

Courses in reading are offered to any student who wishes to improve his/her reading comprehension and speed. RDG 100 is also offered for students seeking admission to a degree program. For programs which require a score of 18 or above on the ACT, see a counselor.

RDG 092—English Reading Skills (3 cr)

This course complements ENG 092 and may be taken simultaneously. Students with limited English proficiency develop effective reading and writing skills which help them become successful participants in T-VI preparatory reading courses.

RDG 099—Reading Improvement (3 cr)

This course focuses on reading as a thinking process, helping students recognize that what they bring to the reading task is as important as the print which they expect to decode and comprehend. Successful completion of this course is required for any student whose score on the ACT* is below 15.

RDG 099L—Lab for Reading Improvement (0 cr)

(Corequisite: RDG 099) Computer assisted/tutorial laboratory exercises to help the student improve reading, vocabulary, and comprehension skills.

RDG 100—College Preparatory Reading (3 cr)

This course provides instruction in reading skills necessary for success in college level courses. The course emphasizes study skills and vocabulary development and places special emphasis on comprehension skills. Students entering this course should possess at least high school level reading abilities. Selected topics in social science are used as vehicles to develop reading proficiency.

RDG 100L-Lab for College Preparatory Reading (0 cr)

(Corequisite: RDG 100) Computer assisted/tutorial laboratory exercises in reading and study skills and strategies to prepare students for success in college level courses.

English

ENG 092—English Language Skills (6 cr)

This is an intensive course in English. Students with limited English proficiency learn effective speaking and listening skills necessary for successful participation in T-VI preparatory courses. Class meets two hours per day.

ENG 094—Language Development (6 cr)

This class helps students improve basic communications skills—speaking, listening, reading and writing. It helps them to follow oral and written instructions accurately and to write, spell and use English correctly. Class meets two hours per day.

ENG 099—Writing Standard English I (3 cr)

This course focuses on the grammar and mechanics of standard American English, as well as on writing narrative, descriptive, and simple expository paragraphs. *Prerequisite: ENG 094 or equivalent skills as demonstrated by exam*. Satisfactory completion of ENG 099 meets prerequisite requirements for ENG 100.

ENG 099L—Lab for Writing Standard English I (0 cr)

(Corequisite: ENG 099) Computer assisted/tutorial laboratory instruction in grammar and in writing paragraphs using word processing.

ENG 100—Writing Standard English II (3 cr)

This course focuses on the grammar, mechanics and usage of standard American English, as well as on writing simple expository paragraphs and essays. *Prerequisite: ENG 099 or equivalent skills as demonstrated by exam.* Satisfactory completion of ENG 100 meets prerequisite requirements for ENG 101.

ENG 100L-Lab for Writing Standard English II (0 cr)

(Corequisite: ENG 100) Computer assisted/tutorial laboratory instruction in grammar and in writing paragraphs using word processing.

Language Skills

LANG 100-Spanish for Beginners (3 cr)

Conversational Spanish for non-Spanish speaking students is taught in this class. Information about the Spanish culture and its customs and traditions is included. This course is not eligible for support by Veterans Administration.

Science

SCIE 100A—Scientific Reasoning (3 cr)

This course will help the student to become a more independent learner by developing effective study and critical thinking skills. A variety of problems in science which require critical thinking will be analyzed and solved as a means to sharpen students' abilities. Skills practiced in this class will aid the developing student in any future science or technology course. Scientific Reasoning 100 is offered for any student entering a degree program. For programs which require a score of 19 or above on the ACT, see your counselor.

SCIE 100L-Lab for Scientific Reasoning (0 cr)

(Corequisite: SCIE 100) Computer assisted/tutorial laboratory exercises in basic study and critical thinking skills to prepare students for entry into any future science or technology course.

Communications/Study Skills

SSKL 100—Thinking Strategies (3 cr)

This course is for students who wish to improve their general thinking abilities. Several thought processes are explored and applied to general problem-solving situations, including math and word problems, standardized testing and group processes. The course is especially recommended for students preparing for Accounting, Data Processing, Electronics and other majors dealing with troubleshooting, and for students who are weak in math.

CMTC 100—Communications for Technology (3 cr)

In this course, students improve speaking, listening, reading and writing skills as related to their field of study in Technologies. They also learn reference and study skills.

CMTR 100—Communications for Trades (3 cr)

In this course, students improve speaking, listening, reading and writing as related to their field of study in Trades. They also learn reference and study skills.

CMBO 100—Communications for Business Occupations (3 cr)

In this course, students improve speaking, listening, reading and writing as related to their field of study in Business Occupations. They also learn reference and study skills.

CMHO 100—Communications for Health Occupations (3 cr)

In this course, students improve speaking, listening, reading and writing as related to their field of study in Health. They also learn reference and study skills.

Survey Courses

Courses listed below provide a survey of majors in Business Occupations, Health Occupations or Technologies as indicated by the course title. Students learn more about the majors which they have selected with regard to job availability, job expectations, and methods, materials and operations of each field. These courses are not eligible for support by Veterans Administration.

ACCT 100—Introduction to Accounting (3 cr)

This course is designed to provide the student with knowledge of the basic accounting cycle. Additional topics such as payroll and taxes will be covered as time permits. This class will prepare students for upper-level accounting courses.

SS 100—Introduction to Typing (3 cr)

This course is for students who either need or wish to learn typewriting or general keyboarding skills. Students in Business Occupations who have unique difficulties in learning typewriting are encouraged to enroll. The course is also recommended for students preparing for Data Processing and other majors requiring keyboard skills. Upon successful completion, student will type a minimum of 25 wpm.

HLTH 100—Introduction to Health Occupations (3 cr)

This course offers an introduction to various health careers through class discussions, tours and speakers. It also introduces the student to anatomy and physiology of selected body systems. Diseases and treatments are discussed in relation to these body systems.

DP 100—Introduction to Data Processing (3 cr)

This course provides preparation for the first team in data processing technology. Course objectives include programming in BASIC on microcomputers, programming in COBOL on mainframe computers, flowcharting, data processing concepts and computer career information. Satisfactory completion of this course indicates that the student is prepared to enter DP 100L and DP 102.

ELEC 100—Introduction to Electronics (3 cr)

This course includes intensive study of introductory concepts of electronics theory including the atom, Ohm's Law, Kirchoff's Law, DC and AC circuit principles, and the necessary thinking skills and techniques which are required for further study in electronics. Also included are concepts in magnetism, inductance and capacitance. Satisfactory completion of ELEC 100 signifies that the student is prepared to enter ELEC 103L. (Students may step back to this course from ELEC 103L if the level of difficulty in the course is too great.)

DRFT 100—Introduction to Drafting (3 cr)

This course includes intensive study of introductory concepts of drafting including line weights, orthographic projection, pictorials and basic drafting skills as applied to major areas. Freehand sketching, geometric constructions, lettering, occupational information and the use of math in drafting are also included. This course helps to prepare the student for entry into ARDR 101L, C&S 101L or DDET 101L. (Students may also step back to DRFT 100 if the level of difficulty in these courses is too great.)

Special Services

MATH 090—Introductory Mathematics (6 cr)

This course provides small group instruction in basic mathematics skills—whole numbers, common fractions, decimal fractions, percents and conversions—to special-needs students. The student is placed in a self-paced, individualized, programmed math unit. Students who make sufficient progress are moved into regular preparatory courses. The class meets two hours each day.

ENG 090—Introductory Language Skills (6 cr)

Small group instruction is provided to special-needs students in basic communication skills—spelling, reading, writing, speaking and listening. The course helps students follow oral and written instructions accurately and write and use English correctly. Students who make sufficient progress are transferred to regular preparatory courses. The class meets two hours per day.

LANG 090-Spelling (3 cr)

This course provides diagnosis and remediation for specific spelling deficiencies. Word structure and the principles and rules of spelling are emphasized. The class meets daily for one hour.

SPSV 089—Targeted Instruction (3 cr)

This course provides study skills remediation and intensive individualized instruction to students who have potential for participation in certificate majors or academic programs but need concentrated help to complete the Preparatory Program. Students receive daily, individualized tutoring in a classroom setting.

SPSV 090-Employability Skills (3 cr)

This course is designed to assist the student in identifying appropriate employment options and to make the student job-conscious, self-assured and well-prepared for employment. Units include self-assessment, career exploration, resume writing, applications, interviewing techniques, on-the-job training, work samples, business vocabularies, writing and composing letters, human relations, community resources and job market information. This class meets daily for one hour.

Arts & Sciences

Biological and Physical Sciences

ASTR 101—Introduction to Astronomy I (3 cr)

This descriptive and historical introduction to the science of astronomy focuses on the solar system, including the sun, the planets, comets and meteors. Topics also include the space program and critiques of related pseudosciences such as astrology.

BIO 111—Environmental Science (3 cr)

This course introduces the study of the environment, including basic principles of ecology, relationship of humans to the environment and solutions to local, regional and global environmental problems.

BIO 111L—Environmental Science Lab (1 cr)

(Pre- or corequisite: BIO 111) An optional laboratory for investigation of the principles discussed in class, this course includes laboratory analysis of water, soil and air pollutants, as well as field trips to sites of special interest.

BIO 115L—Biophysical Science (4 cr)

This is an introduction to the natural sciences of biology, chemistry and physics, and emphasizes their application to the human organism. Laboratory complements lecture and focuses on laboratory procedures and techniques. Three hours of lecture and one three-hour lab are taken concurrently. Familiarity with college algebra is recommended.

BIO 121L—Principles of Biology I (4 cr)

This course emphasizes the development of concepts. Topics include impact biology, biological chemistry, Mendelian inheritance, molecular genetics and embryology. Three hours of lecture and one three-hour lab are taken concurrently. Familiarity with college algebra is recommended.

BIO 122L—Principles of Biology II (4 cr)

(Prerequisite: BIO 121L) Emphasizing the development of concepts, topics include population genetics, evolution, ecology, behavior, plant and animal psychology and the diversity of organisms. Three hours of lecture and one three-hour lab are taken concurrently.

BIO 123—Biology for Health Sciences (3 cr)

Principles of cell biology, cell chemistry, genetics and organismic biology are studied with an emphasis on human systems. Familiarity with college algebra is recommended.

BIO 124L—Biology for Health Sciences Lab (1 cr)

(Pre- or corequisite: BIO 123) Laboratory exercises and demonstrations related to cell biology, organ systems and genetics are conducted.

BIO 136—Human Anatomy and Physiology for Non-Majors (3 cr)

This one-semester course examines the structure (anatomy) and function (physiology) of the human body. Investigation involves the molecular, cellular, tissue and organ levels and the body as an integrated whole.

BIO 139L—Human Anatomy and Physiology for Non-Majors Lab (1 cr)

(Pre- or corequisite: BIO 136) Laboratory exercises complement concepts presented in lecture. Exercises include microscopy, chemistry, dissections and use of models.

BIO 200L—General Ecology (4 cr)

(Prerequisite: BIO 122L or BIO 123/124L or permission of instructor) Students are introduced to the interrelationships of organisms to their environment through the study of populations, communities, ecosystems and the biosohere. Three hours of lecture and one three-hour lab are taken concurrently. Summer, fall terms only.

BIO 221—Introductory Genetics (3 cr)

(Prerequisite: BIO 123/124L or 121L or permission of instructor) Emphasis is placed on the structure, function and transmission of hereditary factors. Offered alternating terms.

BIO 223L—Introductory Genetics Lab (1 cr)

(Pre- or corequisite: BIO 221) Lab exercises using fruit flie's and lower organisms illustrate the principles introduced in BIO 221. Offered alternating terms.

BIO 224L—Southwestern Natural History (4 cr)

Three hours of lecture and three hours of lab or field trips (one or more overnight) present the natural history and identification of southwestern flora and fauna. Summer, fall terms only.

BIO 231L—Environmental Biology (3 cr)

(Prerequisite: BIO 121L or 123/124L) In combined lecture and lab, students explore basic concepts and methods in microbiology and their applications to problems in hazardous waste management, environmental assessment and remediation.

BIO 237—Human Anatomy and Physiology I (3 cr)

(Prerequisite: BIO 115L or a combination of BIO 123/124L or BIO 121L and CHEM 111/112L or CHEM 121L) This course is an integrated study of human structure and function that covers the integumentary, skeletal, muscular and nervous systems.

BIO 238—Human Anatomy and Physiology II (3 cr)

(Prerequisites: BIO 237/247L) This course, a continuation of BIO 237, covers the structure and function of the cardiovascular, respiratory, digestive, urinary, reproductive and endocrine systems.

BIO 239—Microbiology (3 cr)

(Prerequisites: BIO 115L or a combination of BIO 123/124L or BIO 121L and CHEM 111/112L or Chem 121L; corequisite: BIO 239L) The concepts of microbiology, host-parasite relationships, infection and immunity are introduced.

BIO 239L—Microbiology Lab (1 cr)

(Prerequisites: BIO 115L or a combination of BIO 123/124L or BIO 121L and CHEM 111//12L or CHEM 121L; corequisite: BIO 239) In three-hour-a-week laboratory sessions, students study laboratory techniques with microorganisms and observe the growth of microorganisms, control and sanitation.

BIO 247L—Human Anatomy and Physiology I Lab (1 cr)

(Prerequisites: BIO 115L or a combination of BIO 123/124L or BIO 121L and CHEM 111/112L or CHEM 121L; pre- or corequisite: BIO 237) This course provides anatomical and physiological laboratory exercises coordinated with the topics covered in BIO 237. Specimen dissection and cadaver study are included.

BIO 248L—Human Anatomy and Physiology II Lab (1 cr)

(Prerequisites: BIO 115L or a combination of either BIO 123/124L or BIO 121L and CHEM 111/112L or CHEM 121L; pre- or corequisite: BIO 238) This course provides anatomical and physiological laboratory exercises coordinated with the topics covered in BIO 238. Specimen dissection and cadaver study are included.

BIO 260L—Botany (4 cr)

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(Prerequisite: BIO 122L) This course introduces students to the different subdivisions of the plant kingdom, namely Algae, Fungi, Bryophyta, Pteridophyta, Gymnosperms and Angiosperms. Plant morphology, anatomy and sexual and asexual reproduction are covered under each section. One three-hour lab complements three hours of lecture each week. Summer term only.

BIO 296—Topics in Biology (1–3 cr)

Various topics in biology are presented.

CHEM 101—Concepts of Chemistry (3 cr)

This course is an introduction to chemistry as it applies to the world in which we live. In addition to an introduction to the chemical and physical properties of matter, topics of special interest will be covered.

CHEM 111—Introduction to Chemistry (3 cr)

This course, a qualitative introduction to chemistry, is designed to give students an understanding of basic chemical concepts. Students apply these concepts to explore the nature of common products and processes encountered in everyday life. Students will use basic arithmetic.

CHEM 112L—Introduction to Chemistry Lab (1 cr)

(Pre- or corequisite: CHEM 111) Meeting for one three-hour period each week, students perform experiments and complete lab reports complementing the material covered in CHEM 111.

CHEM 121L—General Chemistry I (4 cr)

(Prerequisite: MATH 121 or MATH 150 with a minimum grade of C) The first semester of a standard two semester sequence in general chemistry for students majoring in the sciences, engineering or premed, this course stresses atomic and molecular structure, chemical periodicity, mass and energy relationships in chemical reactions, and the chemical and physical behavior of matter. A strong emphasis is placed on problem solving. Three hours of lecture per week are complemented by a three-hour lab meeting.

CHEM 122L—General Chemistry II (4 cr)

(Prerequisite: CHEM 121L) Continuing from CHEM 121L, students are given thorough quantitative coverage of acids and bases, chemical equilibrium, chemical kinetics, thermodynamics, solubility, electrochemistry and nuclear chemistry. Introductions to coordination chemistry and organic chemistry are included as well as a brief survey of the elements. Three hours of lecture per week are complemented by a three-hour lab meeting.

CHEM 130L—Environmental Chemistry (3 cr)

(Prerequisite: CHEM 111/1/12L) Introducing the student to the fundamentals of environmental chemistry, this course focuses on chemical and instrumental analysis, sampling, and preservation techniques in the areas of water, wastewater, soil, air and food testing.

CHEM 212—Organic Chemistry and Biochemistry (4 cr)

(Prerequisite: CHEM 111/112L or CHEM 121L) A one-semester introduction to organic chemistry and biochemistry designed for students in the health and environmental occupations, this course surveys organic functional groups in terms of structure and chemical/physical properties, followed by coverage of the chemistry of living organisms. A strong emphasis is placed on medical aspects of the material.

CHEM 296—Topics in Chemistry (1-3 cr)

Various topics in chemistry will be offered.

PHYS 102—Introduction to Physics (3 cr)

This general-interest course for nonscience or science majors introduces the basic concepts and phenomena of physics. In conjunction with practical demonstrations and applications, the course is descriptive. Students need only a minimum of elementary mathematics.

PHYS 151—Physics I (3 cr)

(Prerequisite: MATH 121 or MATH 150 or MATH 180) Through lectures and demonstrations, this course is a study of mechanics, sound and heat. This is a non-calculus based course which satisfies premedical, predental, preoptometry and certain technologies requirements.

PHYS 152—Physics II (3 cr)

(Prerequisite: PHYS 151) Using lecture and demonstration, this course presents the areas of electricity, magnetism and optics.

PHYS 153L—Physics I Lab (I cr)

(Pre- or corequisite: PHYS 151) Experimental technique and demonstration of the principles and phenomena of physics are the focus of experiments in mechanics, heat and sound.

PHYS 154L—Physics II Lab (1 cr)

(Pre- or corequisite: PHYS 152) This laboratory course features experiments in electricity, magnetism and optics.

PHYS 157—Problems in Physics I (1 cr)

(Corequisite: PHYS 151; available on an audit basis only) Recitation and problem-solving are handled in relation to PHYS 151.

PHYS 158—Problems in Physics II (1 cr)

(Corequisite: PHYS 152; available on an audit basis only) Recitation and problem-solving are handled in relation to PHYS 152.

PHYS 160—General Physics I (4 cr)

(Pre- or corequisite: MATH 162) A study of mechanics and sound waves is offered in this course. Topics and demonstrations include Newton's law of motion, force, moments, friction, work, energy, power, momentum and longitudinal wave properties.

PHYS 161—General Physics II (4 cr)

(Prerequisite: PHYS 160; pre-or corequisite: MATH 163) Lectures in heat, electricity and magnetism are supplemented by demonstrations.

PHYS 163L—General Physics Lab (1 cr)

(Pre- or corequisite: PHYS 160) Topics introduced in the lecture corequisite are explored in the laboratory.

PHYS 167-Problems in Physics I and General Physics I (1 cr)

(Corequisite: PHYS 160; available on an audit basis only) Recitation and problem-solving are handled in matters relating to PHYS 151 and PHYS 160.

PHYS 168-Problems in Physics II and General Physics II (1 cr)

(Corequisite: PHYS 161; available on an audit basis only) Recitation and problem-solving are handled in matters relating to PHYS 152 or PHYS 161.

PHYS 262—General Physics III (4 cr)

(Prerequisite: PHYS 161; pre- or corequisite: MATH 264) This course is the third in the calculus-based sequence for science and engineering students. It is a study of optics and topics in modern physics.

PHYS 267—Problems in General Physics III (1 cr)

(Corequisite: PHYS 262; available on an audit basis only) Recitation and problem-solving are related to topics in PHYS 262.

Communications 1

COMM 110-Mass Media and Society (3 cr)

Newspapers, TV, magazines and radio play a significant role in American society. This course examines that role and its effect on other forms of communication, from interpersonal to public, and introduces the economic and developmental history of mass media.

COMM 130—Public Speaking (3 cr)

This class blends theory and practical application. Students prepare, present and critique speeches of their own and critique speeches of others. Knowledge and skills gained in this course will assist students in meeting professional and personal goals.

COMM 221-Interpersonal Communication Studies (3 cr)

Through group activities, discussion and lecture, his course introduces concepts of perception, emotions, nonverbal communication, istening, defensiveness and relational conflict. Students develop awareness of communication styles and skills to enhance their interpersonal effectiveness in professional and personal relationships.

COMM 225—Small Group Communication Studies (3 cr)

This course teaches theory and skills involved in small group processes through participation in small groups. The course includes attention to group types, characteristics, dynamics, conflicts, norms, roles, leadership, problem solving and decision making.

COMM 232—Business and Professional Communication Studies (3 cr)

This class is a practical introduction to the principles and skills needed to communicate effectively for on-the-job success in business and professional settings. Emphasis is on developing, organizing and supporting ideas in interpersonal business encounters, groups and meetings and platform presentations.

COMM 240—Organizational Communication Studies (3 cr)

This course provides an introduction to communication and organizational theory. Communication networks, power and authority, manager/employee relationships and leadership are examined. Emphasis on communication patterns and practices makes this an important course for all who work in organizations.

COMM 270—Communication Studies for Teachers (3 cr)

This course emphasizes a systems approach to classfoom communication at any level and provides teachers with a means to analyze, develop and facilitate effective communication in the classroom. The course includes application of theory in relational development, nonverbal communication, small groups, communication barriers and presentations.

COMM 292—Family Communication Studies (3 cr)

This course presents theories and skills applicable to communication in families. The family-of-origin influence in the development of communication patterns is examined in family systems, themes, images, adaptability, roles, power, intimacy, conflict and other elements of transactions. Skills for improving communication effectiveness and satisfaction are emphasized.

COMM 293—Topics in Communication Studies (1-3 cr)

Topic offerings vary from term to term.

ENG 101-Writing with Readings in Exposition (3 cr)

(Prerequisite: One of the following—ACT [see page 00 for scores], ASSET, passing ENG 100, or passing English placement exam) This course stresses expository writing and reading. It concentrates on organizing and supporting ideas in essay writing.

ENG 102—Analytic Writing (3 cr)

(Prerequisite: ENG 101 with a minimum grade of C or a minimum ACT score of 25 if taken before November 1989 or 29 if taken after November 1989) Students undergo intensive practice writing essays that analyze expository and literary readings.

ENG 119—Technical Communications (3 cr)

(Prerequisite: ENG 101 with a minimum grade of C or a minimum ACT score of 25 if taken before November 1989 or 29 if taken after November 1989) This is an introductory study of the types of written and verbal communication needed in business and industry. Topics covered include descriptive and process analysis, informal reports and proposals, short logs/reports for lab and field work, basic production of graphics, letter writing and oral presentation.

ENG 212-Topics in Language and Writing (1-3 cr)

Topic offerings vary.

ENG 219—Technical Writing (3 cr)

(Prerequisite: ENG 102) A study of the most common types of writing in industry, research laboratories, business and other professional settings. Instruction includes correspondence and memos, abstracts, proposals, bibliographies and reviews, and various formal and informal reports presented orally and in writing.

ENG 220—Expository Writing (3 cr)

(Prerequisite: ENG 102) This study of advanced composition concentrates on expository, analytic and argumentative writing.

ENG 221—Creative Writing: Fiction (3 cr)

(Prerequisite: ENG 101 or permission of instructor) Student work is supplemented by texts and discussion on writing as a creative process.

ENG 222—Creative Writing: Poetry (3 cr)

(Prerequisite: ENG 101 or permission of instructor) Student poetry is supplemented by texts and discussion of writing as a creative process.

ENG 240—Traditional Grammar (3 cr)

This course is a study of traditional grammar, emphasizing basic analysis of English sentences. Students are introduced to terminology and methods for identifying parts of speech, functional units of sentences and basic sentence patterns.

Computer Science

CSCI 101—Computer Literacy (3 cr)

This introductory course provides lecture and laboratory instruction in the use of computers. Lecture topics emphasize the working of computers and lab projects utilize software applications such as: WordPerfect 5.1, Lotus 1-2-3, dBase III Plus and MS-DOS.

CSCI 150—Computing for Business Students (3 cr)

(Prerequisite: Math 120 with a minimum grade of C) Using personal computers, students will learn the use of a word processor, a spreadsheet and simple database management system. Programming in BASIC is also introduced. Previous working knowledge of some software is recommended.

CSCI 155L—Introduction to Computer Programming (4 cr)

(Prerequisite: MATH 121 with a minimum grade of B or MATH 150 with a minimum grade of C) This course is an introduction to the skill of computer programming. Understanding the relationship between programming and problem solving, using programs written in Pascal, is the main objective.

Fine Arts and Languages

ART 101-Introduction to Art (3 cr)

Students are introduced to the fundamental concepts of visual arts as well as the language of form and media of artistic expression. Instruction centers around readings and slide presentations. Some museum exhibition attendance may be required.

ART 151—Art of the American Southwest (3 cm)

Emphasizing major forms of expression—pottery, extiles, jewelry, architecture, painting and photography—the interrelationships of three southwestern cultures are explored in slide lectures and field trips.

ART 201—History of Art I (3 cr)

A survey of Near Eastern, Egyptian, Greek, Roman, early Christian, Byzantine, early Medieval, Romanesque and Gothic art and architecture, this course's lectures are supplemented by slides. Fall, summer term.

ART 202—History of Art II (3 cr)

In this survey of Italian and Northern Renaissance, Baroque, Rococo and 19th-century western European painting, sculpture and architecture, slides and designated readings supplement lectures. Winter, summer term.

ART 250-Modern Art (3 cr)

An introduction to the major figures, movements and stylistic developments in Western art from 1850 to the present, lectures are supplemented by slides and designated readings.

ART 260-Architectural History: Ancient through Modern (3 cr)

Lectures survey the history of Western architecture from the pyramid to the post-Modernist house. The technological, stylistic and functional characteristics of monuments within their cultural context will be analyzed. Material will be supplemented by slides.

FREN 101—Elementary French I (3 cr)

Beginning French for students with no previous exposure to the language, this course develops all four language skills, with emphasis on listening comprehension and speaking.

FREN 102—Elementary French II (3 cr)

(Prerequisite: FREN 101 or permission of the instructor) This course continues developing the skills introduced in FREN 101.

FREN 103—Beginning French Conversation I (1 cr)

(Pre- or corequisite: FREN 101) This course offers extra practice for students concurrently enrolled in or who have completed FREN 101. It is especially recommended for students taking a foreign language for the first time.

FREN 104—Beginning French Conversation II (1 cr)

(Pre- or corequisite: FREN 102) This course offers extra conversation practice for students concurrently enrolled in or who have completed FREN 102. It is highly recommended for students who need extra work in speaking and understanding French.

FREN 201—Intermediate French I (3 cr)

(Prerequisite: FREN 102 or permission of instructor) This course builds upon FREN 102. It is meant to polish skills acquired in first-year French while broadening the student's knowledge of the language and culture of France.

FREN 202-Intermediate French II (3 cr)

(Prerequisite: French 201 or permission of instructor) This course is a continuation of FREN 201.

FREN 203—Intermediate French Conversation (3 cr)

(Pre- or corequisite: FREN 201 or 202) This course encourages the use, development and strengthening of conversation skills by using readings from simple literary or cultural texts and news articles, as well as various audio-visual materials.

MUS 103—Fundamentals of Music (3 cr)

A beginning course in the fundamentals of music, course content includes notation, scales, key signatures and intervals. Aural comprehension is introduced through singing intervals, scales and triads and dictating simple rhythmic and melodic patterns.

MUS 139—Music Appreciation I (3 cr)

Through the study of basic musical elements and their development from early Greece to the Classical period, students expand their abilities to listen actively. This course is nontechnical and requires attendance at live musical performances.

MUS 140—Music Appreciation II (3 cr)

Through the study of symphonic music, chamber music and vocal literature from the Romantic period to the 20th century, students will expand their abilities to listen actively. The course content is entirely different from MUS 139. Students will be required to attend live musical performances.

MUS 296—Topics in Music (1–3 cr)

Topic offerings vary.

SPAN 101—Elementary Spanish I (3 cr)

Designed for students with no previous exposure to Spanish, this course develops listening, speaking and grammatical skills.

SPAN 102—Elementary Spanish II (3 cr)

(Prerequisite: SPAN 101 or Spanish placement exam) Students continue development of listening and grammar skills. More emphasis is placed on speaking.

SPAN 103—Elementary Spanish I Conversation (1 cr)

(Pre- or corequisite: SPAN 101 or permission of instructor) Supplementing SPAN 101, this course provides additional practice in speaking. It does not provide instruction in grammar.

SPAN 104—Elementary Spanish II Conversation (1 cr)

(Pre- or corequisite: SPAN 102 or permission of instructor) Supplementing SPAN 102, this course provides additional practice in speaking. It does not provide instruction in grammar.

SPAN 201—Intermediate Spanish I (3 cr)

(Prerequisite: SPAN 102 or Spanish placement exam) Students review grammar and expand conversational skills while further developing reading proficiency.

SPAN 202—Intermediate Spanish II (3 cr)

(Prerequisite: SPAN 201 or Spanish placement exam) A continuation of SPAN 201, this course provides more conversational activities and more emphasis on writing skills.

SPAN 203—Intermediate Spanish Conversation (3 cr)

(Pre- or corequisite: SPAN 201 or 202 or permission of instructor) This course is designed to increase skills in speaking Spanish for those students who have previously completed or are currently enrolled in SPAN 201 or SPAN 202. Not for fluent speakers.

SPAN 296—Topics in Spanish (1–3 cr)

Various topics in Spanish language and literature are presented. Prerequisites may also vary.

Humanities

ENG 150—Study of Literature (3 cr)

(Prerequisite: ENG 101 or permission of instructor) An introduction to the study and appreciation of literature, this course shows how understanding writers' techniques increases reading enjoyment and relates these techniques to literary conventions. Fall term only.

ENG 210—Film as Literature (3 cr)

(Prerequisite: ENG 101 or permission of instructor) Screenings and critical study of major films supplement this course's analyses of film as literature. Students also survey major trends in the history of film.

ENG 211—Topics in Literature (1–3 cr)

Specific types or areas of literature are surveyed. Topic variations include the American novel, the short story, quest romances, Native American literature and women's fiction.

ENG 270—Modern Literature (3 cr)

(Prerequisite: ENG 101 or permission of instructor) American and European literature of the 20th century is introduced. Works by authors such as Ibsen, Chekhov, Joyce, Camus, Conrad, Woolf, Faulkner and Hemingway are emphasized. Winter term only.

ENG 282—Modern Latin American Literature (3 cr)

(Prerequisite: ENG 101 or permission of instructor) Chronicles, diaries, drama, poetry, essays and fiction of Latin America will be surveyed, with emphasis on cross-cultural relations between life and literature.

ENG 294—Survey of Earlier English Literature (3 cr)

(Prerequisite: ENG 101 or permission of instructor) As a survey of British literature from Old English to 1798, this course presents a study of the principal literary and intellectual movements, and selected writers and literary works. Fall term only.

ENG 295—Survey of Later English Literature (3 cr)

(Prerequisite: ENG 101 or permission of instructor) British literature from 1798 to the present is surveyed. Selected writers and literary works provide the matter for reading, discussion and composition. Winter term only.

ENG 296—American Literature (3 cr)

(Prerequisite: ENG 101 or permission of instructor) Students survey literature from colonial to present times. Short stories, poetry, drama and nonfiction are emphasized.

GNHN 121A—General Honors: The Ancient Legacy (3 cr)

(Prerequisite: permission of instructor; see Arts & Sciences counselor for information and application) A survey of major writers from Homer to Dante, this class will focus on the ideas basic to the intellectual, historic and artistic tradition of Western culture. Fall term only.

GNHN 121M—General Honors: The Modern Legacy (3 cr)

(Prerequisite: permission of the instructor; see Arts & Sciences counselor for information and application) This course focuses on a later core of readings primary to the understanding of Western thought and society. Students will explore concepts such as free will, social contract, Protestant ethics, humanism, reason, human nature, romanticism and materialism. Winter term only.

GNHN 221—Topics in General Honors (1-3 cr)

Various topics in General Honors are offered.

HIST 101—Western Civilization I (3 cr)

Events, personalities, issues, rises and falls are the focus of this course which covers ancient times through 1648.

HIST 102—Western Civilization II (3 cr)

This course explores people and events in their various contexts, such as colonialism, the age of revolutions, expansionism and the Great Wars, from 1648 to the present.

HIST 161—History of the United States I (3 cr)

This course is a survey of the economic, political, intellectual and social development of the United States from 1492 to 1877.

HIST 162—History of the United States II (3 cr)

A continuation of HIST 161, this course covers the period from 1865 to the present.

HIST 230—U.S.S.R Today: People, Politics, Culture (3 cr)

From economic disintegration and ethnic unrest to rock music and fast food, this course examines major issues of Soviet life as they relate to their historical roots.

HIST 260—History of New Mexico (3 cr)

This course explores New Mexico's history from 1500 to the present. The contributions of and interactions among Native Americans, Hispanics, Anglos, and others receives special attention.

HIST 270—The American Frontier (3 cr)

The story of the settlement of the vast American continent offers the excitement of exploration, the romance of the fur trade and the mining camp, and the inspiration of courageous overland pioneers. It also raises questions about the brutal exploitation of native peoples, the destruction of the landscape, and the enduring impact of frontier violence on America in the 1990s.

HIST 281—Colonial Latin American History (3 cr)

This course surveys the history of Latin America from pre-Columbian civilizations through the final independence movements of the 1820s.

HIST 282-Modern Latin American History (3 dr)

This course examines Latin American history from the beginning of the revolutionary period in 1810 to the present.

HIST 296—Topics in History (1-3 cr)

Various topics in the field of history are covered.

HUM 107—Living World Religions (3 cr)

Major living world religions are introduced. Students study Buddhism, Christianity, Hinduism, Islam and Judaism.

HUM 111—Comparative Civilizations I (3 cr)

Students are given a comparative introduction to the development of world civilizations from their beginnings through the Middle Ages.

HUM 112—Comparative Civilizations II (3 cr)

Students are given a comparative introduction to the development of world civilization from the Renaissance through contemporary times.

HUM 247—Topics in Humanities (1-3 cr)

A variety of topics of an interdisciplinary nature are explored.

PHIL 110—Introduction to Philosophical Thought (3 cr)

This is a survey of the philosophical issues addressed by great thinkers of the Western tradition. Problems concerning values, knowledge, reality, society, politics and religion are introduced. Some time is given to non-Western philosophies as well.

PHIL 156—Logic and Critical Thinking (3 cr)

This course provides the tools of reason which are helpful in everyday decision-making. It also introduces skills for argument analyses and effective communication of ideas. Informal fallacies and formal deductive systems are surveyed.

PHIL 241—Topics in Philosophy (1-3 cr)

Topics vary. Students explore a major philosophic issue, system, movement or figure.

PHIL 245B—Business Ethics (3 cr)

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Ethical problems in the field of business are examined. Moral issues such as corporate takeovers, insider trading, conflicts of interest, employer/employee relations and "whistle-blowing" are viewed from widely different ethical perspectives.

PHIL 245M—Biomedical Ethics (3 cr)

Ethical problems in the fields of medicine and bio-research are examined. Moral issues such as euthanasia, genetic experimentation, informed consent and abortion are viewed from widely different ethical perspectives.

PHIL 245T—Ethics of Technology (3 cr)

Issues dealing with engineering and environmental ethics, morality and bio-research, the technological revolution, the ethics of experimentation, agricultural ethics, "disasters" and moral responsibility, and nuclear energy and waste disposal will be examined.

Mathematics

MATH 111—Mathematics for Elementary and Middle School Teachers I (3 cr) Prospective and current teachers of mathematics will be introduced to the intuitive and logical background of arithmetic, properties of sets, algorithms of arithmetic and other bases, properties of the integers, mathematical terminology, elements of number theory and problem solving.

MATH 112—Mathematics for Elementary and Middle School Teachers II (3 cr) (Prerequisite: MATH 111 with a minimum grade of C) Continuing from MATH 111, the properties of the rational number system, extension to irrationals, decimal and fractional representation of real numbers, and intuitive geometry and measurement are introduced.

MATH 120—Intermediate Algebra (3 cr)

(Prerequisite: One of the following—ACT [see p. 8 for scores], ASSET, MATH 100, or passing MATH 120 placement exam) The course reviews fundamental concepts and operations with real numbers; covers linear equations and inequalities, polynomials, exponents and radicals, rational expressions and equations; and also includes graphing of lines and parabolas.

MATH 120L—Intermediate Algebra (4 cr)

(Prerequisite: One of the following—ACT [see p. 8 for scores], ASSET, MATH 100 or passing MATH 120 placement exam) The course content is the same as MATH 120; however, three hours of lecture are supplemental by one hour of intensive practice and problem-solving sessions.

MATH 121—College Algebra (3 cr)

(Prerequisite: MATH 120 with a minimum grade of C or algebra placement exam or a minimum ACT score of 25 if taken before November, 1989 or 26 if taken after November, 1989) This course includes the study of equations, inequalities and systems of equations. Functions and their graphs are introduced including polynomial, rational, exponential and logarithmic.

MATH 123—Trigonometry (2 cr)

(Prerequisite: MATH 121 or MATH 150 with a minimum grade of C or permission of the instructor or trigonometry placement exam or a minimum ACT score of 25 if taken before November, 1989 or 26 if taken after November, 1989) Trigonometric functions, radian and degree measure, graphs, basic trigonometric identities and inverse trigonometric functions are covered.

MATH 129—The Art of Mathematics (3 cr)

(Prerequisite: Math 120 or algebra placement exam or a minimum ACT score of 25 if taken before November, 1989 or 26 if taken after November, 1989) Problems, readings and discussion illustrate the creative nature of mathematics and its influence on Western thought. Students may research topics of individual interest.

MATH 145—Introduction to Probability and Statistics (3 cr)

(Prerequisite: MATH 120 with a minimum grade of C or algebra placement exam or a minimum ACT score of 25 if taken before November, 1989 or 26 if taken after November, 1989) This course provides an introduction to basic concepts in probability and statistics—analysis of numerical data and descriptive statistics, probability and basic probability models, sampling and statistical inference with applications from a variety of fields.

MATH 150—Advanced Algebra (3 cr)

(Prerequisite: MATH 120 with a minimum grade of B or MATH 121 with a minimum grade of C or algebra placement exam or a minimum ACT score of 25 if taken before November, 1989 or 26 if taken after November, 1969) This course emphasizes polynomial, rational, exponential, and logarithmic functions, as well as the graphs of these functions. This course includes an introduction of sequences and series.

MATH 162—Calculus I (4 cr)

(Prerequisite: MATH 121 with a minimum grade of B or MATH 150 with a minimum grade of C or algebra placement exam; pre- or corequisite: MATH 123 or trigonometry placement exam) This course includes a study of derivatives, formal differentiation, the concept of continuity, applications of the derivative such as curve sketching, maxima and minima, and integration.

MATH 163—Calculus II (4 cr)

(Prerequisite: MATH 162 with a minimum grade of C) This course covers differentiation and integration techniques with applications involving transcendental functions, numerical integration techniques, solving simple differential equations, improper integrals and application of the mean value theorem.

MATH 180—Elements of Calculus I (3 cr)

• (Prerequisite: MATH 121 or MATH 150 with a minimum grade of C or algebra placement exam) Students briefly review functions and their graphs. New topics introduced include limits, derivatives as a rate of change, applications to graphing, maxima, minima and motion, integral as antiderivative and applications, and exponential and logarithmic functions.

MATH 181—Elements of Calculus II (3 cr)

(Prerequisite: MATH 180 with a minimum grade of C and some knowledge of trigonometry or MATH 123 or trigonometry placement exam. MATH 123 can be taken concurrently with MATH 181) A continuation of MATH 180, this course covers the definite integral, multivariate calculus, simple differential equations, and a basic review of trigonometry and its relations to calculus.

MATH 245-Fundamentals of Probability and Statistics (3 cr)

(Prerequisite: Math 180 with a minimum grade of C) This course covers some of the basic ideas in probability and statistics: descriptive statistics, sample spaces, random variables, probability densities, expectation, variance, correlation, estimation, hypothesis testing. Applications to business will be emphasized.

MATH 264—Calculus III (4 cr)

(Prerequisite: MATH 163 with a minimum grade of C) This continuation of MATH 163 covers vector representation of curves and surfaces, partial derivative, gradient, tangent planes, directional derivative, multiple integrals, cylindrical and spherical coordinates, and applications.

MATH 296-Topics in Mathematics (1-3 cr)

Various topics are offered.

Social and Behavioral Science

ANTH 120-Archaeology: Discovering Our Past (3 cr)

This introductory course presents students with an overview of archaeological theory and methods including data from selected archaeological sites in various geographical areas and from different time periods.

ANTH 130-Cultures of the World (3 cr)

This course introduces students to the basic concepts of cultural anthropology. Lectures include a survey of the variety of existing human cultures in their native environments and the relationships of the cultural components. One societal example is studied in detail.

ANTH 150-Evolutionary Anthropology (3 cr)

An introduction to the world of biological anthropology and the concepts of organic evolution, this course emphasizes the fossil history of primates and prehistoric man with a consideration of their paleoecological context. Modern primate behavior is considered in terms of its relevance to human evolution.

ANTH 222-Ancient Mesoamerica (3 cr)

Mesoamerican archaeology is traced from the earliest inhabitants through the Aztec period. Special emphasis is placed on cultural processes and the dynamics of cultural evolution.

ANTH 238-Cultures of the Southwest (3 cr)

This course introduces basic concepts related to cultural patterns of the American Southwest from AD 1600 to the present. Interactions of the ethnic groups that populate the Southwest are illustrated and analyzed.

ANTH 255—Southwestern Anthropology (3 ct)

The archaeology of the southwest is presented from the earliest inhabitants through the early 1600s.

ANTH 296—Topics in Anthropology (1-3 cr)

Topics vary. Students explore an issue in anthropology or the works of an influential anthropologist.

ECON 101—Introduction to Economics (3 cr)

Students are introduced to basic economic concepts and developments. Elementary economic theory is used to supplement a materialistic view of recent western history. Topics include the origins of capitalism, transplantation and adaptation to the New World, and new institutions of the 1800s and 1900s.

ECON 200-Macroeconomics (3 cr)

This course serves as an introduction to the theories and problems of economic policy. Topics include the contrast of the Classical and Keynesian Models, money and banking, inflation, unemployment and economic growth.

ECON 201—Microeconomics (3 cr)

Students are introduced to the laws of demand and supply and the workings of the price system in a free market. Basic economic theory is applied to problems of production, monopoly, taxation, consumer welfare and the environment.

ECON 296—Topics in Economics (1-3 cr)

Topics concerning economic theory, research or statistical analysis, and economists are offered.

GEOG 101—Physical Geography (3 cr)

This course introduces students to the geography of natural environment: weather systems, climatic regions, vegetation, soils, water resources, plate tectonics and volcanic, structural, erosional, fluvial, coastal, desert and glacial landforms.

GEOG 102—Human Geography (3 cr)

Students are introduced to the cultural landscape: population, migration, languages, religions, folk customs, political units, economic development, agriculture, industry, urbanization and a systematic analysis of global environmental issues.

GEOG 201—World Regional Geography (3 cr)

(Prerequisite: GEOG 101 or 102 or permission of instructor) All regions of the world are studied in terms of their landforms, climates, history, cultures and current economic and political problems.

GEOG 296—Topics in Geography (1–3 cr)

Various topics in geography are offered.

PSCI 110—The Political World (3 cr)

This introduction to politics emphasizes how people can understand their own political systems and those of others.

PSCI 200-U.S. Politics (3 cr)

This course is a survey of American politics, including the theory of democracy and political institutions, the electorate, and American governmental branches and their bureaucracies.

PSCI 210—State and Local Politics (3 cr)

Analysis of the workings of politics at the state and local levels is the emphasis of this course. New Mexico is one of many states used as examples.

PSCI 220—Comparative Government and Politics (3 cr)

By considering European, developing and communist regimes and systems, students gain insights into the political history, socioeconomic structure and contemporary political institutions and behaviors of governments and "the body politic."

PSCI 240—International Politics (3 cr)

Students analyze various significant factors in international politics. Topics include nationalism, ideology, deterrence, balance of power, international law and international conflict and collaboration.

PSCI 260—Political Ideas (3 cr)

Discussion of classical and contemporary political ideas and ideologies supplements an introduction to many of the enduring political issues which are presented in descriptive, analytical and normative terms. Fall term only.

PSCI 296—Topics in Political Science (1-3 cr)

Various topics in political science are offered.

PSY 105—Introduction to Psychology (3 cr)

Students are introduced to psychology as a science: the study of behavior and mental processes. Topics surveyed include personality, abnormal behavior, learning, memory, motivation, perception, development and social psychology.

PSY 106L—Introduction to Psychology Lab (1 cr)

(Pre- or corequisite: PSY 105) Laboratory projects relevant to topics covered in PSY 105 are conducted and analyzed with the goal of developing an understanding of methodology as applied to basic psychological concepts. Class meets for three hours each week.

PSY 220—Developmental Psychology (3 cr)

(Prerequisite: PSY 101 or PSY 102 or PSY 105) This course is a study of the stages and processes of the development of physical, social, emotional and intellectual aspects of human personality starting from conception and leading to old age. Emphasis is on pertinent research and practical applications.

PSY 230—Psychology of Adjustment (3 cr)

(Prerequisite: PSY 101 or PSY 102 or PSY 105) Emphasizing processes of normal human adjustment and coping in personal and interpersonal arenas, this course presents topics in the applications of psychology to stress and mood management, self-esteem, social adjustment, communication and relationships.

PSY 231—Human Sexuality (3 cr)

The physiological, cultural, social and individual factors that influence sexual behavior, sex roles and sex identity are explored in this course.

PSY 232—Clinical Psychology (3 cr)

(Prerequisite: PSY 101 or PSY 102 or PSY 105) This course introduces students to clinical psychology as a profession and area of research. Topics include psychometrics and assessment, systems of prevention and therapy, forensic psychology, program evaluation and professional and ethical issues. Fall term only.

PSY 240—Brain and Behavior (3 cr)

(Prerequisite: PSY 101 or PSY 102 or PSY 105 of BIO 121L) This course surveys the role of the nervous system in the control of behavior and mental processes. Winter term only.

PSY 260—Psychology of Learning and Memory (3 cr)

(Prerequisite: PSY 101 or PSY 102 or PSY 105) This course surveys the variety of laboratory learning situations, emphasizing applications to practical situations and ranging from simple processes such as conditioning to complex ones such as transfer, memory and concept formulation. Fall term only.

PSY 271—Social Psychology (3 cr)

(Prerequisite: PSY 101 or PSY 102 or PSY 105) This course presents topics on social interaction—communication, perception of oneself and others, attitudes and leadership. Winter term only.

PSY 296—Topics in Psychology (1-3 cr)

Topics vary, concentrating on the work of an influential psychologist, a school of psychology, or an area in psychology.

SOC 101—Introduction to Sociology (3 cr)

This course covers the basic concepts and theories of contemporary sociology. Topics include culture, socialization, social groups, deviance, sexuality, race and ethnicity, gender, age, family, medicine and religion.

SOC 111—Criminal Justice System (3 cr)

An overview of the criminal justice processes is provided, including an exploration of law, law enforcement, prosecution, defense, trial and sentencing.

SOC 211—Social Problems (3 cr)

(Prerequisite: SOC 101) This course provides an analysis of a range of social problems in contemporary U.S. society, such as racism and prejudice, crime and delinquency, mental disorders, family changes, poverty and substance abuse, all from a sociological perspective.

SOC 212—Juvenile Delinquency (3 cr)

(Prerequisite: SOC 101) Topics covered in this course include theories of juvenile delinquency, child abuse, the juvenile justice system, probation, treatment and corrections for juveniles.

SOC 213—Deviant Behavior (3 cr)

(Prerequisite: SOC 101) Students focus on the theories of deviance and examine such behaviors as rape, murder, theft, drug use, alcoholism, prostitution, mental disorders and suicide.

SOC 214—Sociology of Corrections (3 cr)

(Prerequisite: SOC 101) This course examines theories of crime as well as the major forms of criminal behavior: violent crime, theft, white collar crime, organized crime and public order crime. The criminal justice system, the police, courts and corrections are also covered.

SOC 215—Criminology (3 cr)

(Prerequisite: SOC 101) The causes of crime are covered with emphasis on sociological factors, the various faces of crime, the criminal and past and present criminology theory.

SOC 216—Ethnic and Minority Groups (3 cr)

(Prerequisite: SOC 101) This course examines the relationships between majority and minority and ethnic groups. Prejudice, discrimination, stereotyping, pluralism and social mobility are explored.

SOC 221-Rich and Poor Nations (3 cr)

(Prerequisite: SOC 101) Topics covered include patterns of development and change in nations/states, relationships between Third World and industrial nations, and the impact of class conflict, war, revolution, reform and colonialism on national development.

SOC 225-Marriage and the Family (3 cr)

(Prerequisite: SOC 101) This course addresses major theories of the family and the status of the modern family in an era of varied family forms.

SOC 230—Society and Personality (3 cr)

(Prerequisite: SOC 101) This course introduces topics in social psychology such as personality theories, concepts of self, human relationships, small group dynamics and organizational theories.

SOC 280—Social Science Research (3 cr)

(Prerequisite: SOC 101) The methodology of experimental science is applied to the social sciences in this course. Topics include the study of methodologies of data collection and analysis. Library resources, including legal citations, are used.

SOC 296—Topics in Sociology (3 cr)

Topics vary. Students explore an issue in sociology or the works of an influential sociologist.

General Electives

NUTR 125-Nutrition (3 cr)

An introduction to nutrition as it affects normal body functions, this course's topics include consumer concerns, food selections, food safety, fitness and the impact of nutrition on the life cycle. A self-dietary and activity analysis is a course requirement. Knowledge of multiplication, division, percentages and fractions is strongly recommended.

NUTR 293-Topics in Nutrition (1-3 cr)

Topic offerings vary.

Business Occupations

Business Occupations Learning Centers

Typing I

Typing I is an excellent audiovisual course for beginners or for those who need a review of basic techniques and business applications. The content emphasizes business letters, reports and tables.

Typing II

(Prerequisite: Typing I or placement test) This continuation of Typing I emphasizes speed, accuracy and production.

Keyboarding

This course is an individualized approach to developing basic keyboarding skills. Goals emphasize mastery of the typewriter or computer keyboard through correct techniques and accuracy. Students will work at their own pace to achieve course objectives.

Typewriting Skillbuilding

(Prerequisite: 30 gross words per minute typing skill) This course improves typing accuracy and speed using championship methodology.

Alphabetic Shorthand I

This shorthand system uses alphabetic characters. Students learn to read, write and transcribe shorthand notes. A writing speed of 50 wpm should be reached upon completion.

Gregg Shorthand I

All theory and brief forms leading to the ability to read, write and transcribe Gregg shorthand are learned. A writing speed of 50 wpm should be reached upon completion.

Gregg Shorthand II

(Prerequisite: Ability to write Gregg shorthand at 50 words per minute and transcribe into mailable form) Theory and brief forms are reviewed with emphasis on dictation and transcription. A writing speed of 80 wpm should be reached upon completion.

Shorthand Review

This course is for students who have typing and shorhand skills but need review and speedbuilding. Materials are available for Century 21, Forkner, ABC and Gregg.

Shorthand Speed-building

This course is for individuals who have learned a shorthand theory system and want to concentrate on building dictation speed.

English Review

Instruction is in grammar, spelling and punctuation.

Spelling

This self-paced course consists of seven modules. Each modular lesson uses two cassette tapes: one for instruction and one for testing. The student will listen, read, answer questions, work exercises and spell words, and check his or her answers.

Business Mathematics Fundamentals

This course provides a review of the following fundamental arithmetic operations in solving business problems: addition, subtraction, multiplication, division, fractions, decimals, estimating, percentage, business formulas, percent problems, commissions and bank reconciliation.

Electronic Calculators

Skill is developed on electronic calculators using the touch method. This course is designed to assist students in acquiring competence in mathematical applications.

Accounting Fundamentals

This course gives the student a basic understanding of accounting principles and their application.

Machine Transcription

(Prerequisites: Demonstrated English proficiency and 50 net words per minute typing skill) Instruction is provided in the use of transcribing machines to prepare mailable business correspondence.

Medical Transcription

(Prerequisites: Machine transcription and 50 net words per minute typing skill) This course develops familiarity with medical terminology and transcription.

Medical Terminology

This course familiarizes students with medical terminology by means of a text and audio presentation. A vocabulary is developed through the learning of medical prefixes, roots and suffixes. Students also are shown various medical reports to learn formatting and emphasize medical terms.

Introduction to Microcomputer Courses

Introductory courses available are Introduction to Microcomputers, Keyboarding, Word Processing (WordPerfect) and Electronic Spreadsheet (Lotus 1-2-3). Computer literacy and a typing speed of 25 wpm are prerequisites for WordPerfect and Lotus.

Computer Literacy: This course provides instruction for the first-time user and assumes no previous technical knowledge on the part of the learner.

Keyboarding: See course description above.

Word Processing: This course is an individualized approach to learning WordPerfect.

Lotus 1-2-3: Lotus 1-2-3 is a spreadsheet applications program. It is an integrated package combining spreadsheet graphics and data-bases.

Accounting

ACCT 101L—Accounting Principles I (7 cr)

(Prerequisites: MATH 099, Reading Improvement 099 or equivalent) This is an introductory course in the theory and practice of accounting. The course meets for 10 hours per week: five hours theory and five hours lab.

ACCT 101A: Accounting Principles I (3 cr)

(Prerequisites: MATH 099, Reading Improvement 099 or equivalent) Principles of the double-entry accounting system including recording transactions, adjusting accountings, preparing statements, closing accounts of proprieto ship, partnerships and corporations, merchandise and cash accounts, and accounting systems are covered. Business forms and terms, accuracy, neatness, orderliness and responsibility are included. The course meets for five hours per week. ACCT 101A and ACCT 101B are equivalent to ACCT 101L.

ACCT 101B: Accounting Principles I (4 cr)

(Prerequisites: ACCT 101A, ACCT 111) This is a continuation of ACCT 101A. Units cover accounts receivable, tangible and intangible assets, current and long-term liabilities, and payroll accounting. The course meets for five hours per week. ACCT 101A and ACCT 101B are equivalent to ACCT 101L.

ACCT 102L—Accounting Principles II (7 cr)

(Prerequisites: ACCT 101L, ACCT 111) Planning and accounting for corporations, installment notes, bonds; preparing and analyzing financial statements; controlling business operations by managerial and cost accounting; budgeting and tax considerations are covered in this course. This course meets for 10 hours per week—five hours theory and five hours lab.

ACCT 102A: Accounting Principles II (3 cr)

(Prerequisites: ACCT 101B, ACCT 111) This course povers various aspects of corporate accounting, notes and bonds, departmental accounting, and accounting for manufacturing. The course meets for five hours per week. ACCT 102A and ACCT 102B are equivalent to ACCT 102L.

ACCT 102B: Accounting Principles II (4 cr)

(Prerequisites: ACCT 102A, ACCT 111) This course is a continuation of ACCT 102A. It covers cost accounting, job orders, master budgets, profit analysis, standard costs, managerial decisions and tax considerations. The course meets for five hours per week. ACCT 102A and ACCT 102B are equivalent to ACCT 102L.

ACCT 111—Accounting Math (5 cr)

(Prerequisite: MATH 099 or equivalent) This course covers basic arithmetic operations, familiarizes the student with a wide range of accounting procedures for which mathematics is required, and develops touch method skills using electronic calculators. This course meets for five hours per week.

ACCT 201—Intermediate Accounting I (3 cr)

(Prerequisite: ACCT 102L) This course 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. Emphasis is on the asset side of the balance sheet. This course meets for three hours per week.

ACCT 202—Intermediate Accounting II (3 cr)

(Prerequisite: ACCT 201L) Accounting for current and long-term liabilities, capital stock transactions, dividends, retained earnings, income tax allocation, cash flow statements, and analysis and interpretation of financial statements are covered in this course. This course meets for three hours per week.

ACCT 240—Tax Accounting I (3 cr)

(Prerequisite: ACCT 101L) This course primarily examines the fundamental characteristics of federal income taxes as applied to individuals. This course meets for three hours per week.

ACCT 241—Tax Accounting II (3 cr)

(Prerequisite: ACCT 240 or permission of advisor) This course examines corporations; partnerships; estate, gift and trust taxation, and tax planning. This course meets for three hours per week.

ACCT 254L—Electronic Spreadsheet Lab (3 cr)

(Prerequisites: ACCT 102L, BA 150L or CSCI 101 or permission of advisor) This microcomputer lab uses Lotus 1-2-3 for accounting and business applications. This course meets for five hours per week.

ACCT 255L—Computerized Accounting Lab (3 cr)

(Prerequisites: ACCT 102L, BA 150L or CSCI 101 or permission of advisor) This microcomputer course includes payroll, inventory control, accounts payable and general ledger. Students use prepared integrated business software on microcomputers. This course meets for five hours per week.

ACCT 260—Cost Accounting (3 cr)

(Prerequisite: ACCT 102L) This course emphasizes job order and process costing for construction and manufacturing. This course meets for three hours per week.

ACCT 270—Governmental Accounting (3 cr)

(Prerequisite: ACCT 102L) This course provides the student with training in accounting for governmental and other non-profit entities. This course meets for three hours per week.

ACCT 271—Auditing (3 cr)

(Prerequisite: ACCT 102L) This course is a survey of auditing that includes audit standards, reports, professional ethics, legal liability, evidence accumulation, audit planning, internal control, transaction cycles, other engagements and operational auditing. This course meets for three hours per week.

ACCT 272—Accounting Systems Design (3 cr)

(Prerequisite: ACCT 102L) Students will design a manual accounting system which will include a chart of accounts, an accounting manual, flow charts, control and support systems and reports to management. This course meets for three hours per week.

ACCT 280—Managerial Accounting (3 cr)

(Prerequisite: ACCT 102L) Students learn how accounting data can be interpreted and used by management in planning and controlling business activities. This course meets for three hours per week.

Business Administration

BA 111—Communications (7½ weeks) (2 cr)

(Offered for Trades and Technologies students only) Students develop effective communications skills. Course content includes fundamentals of grammar, punctuation and word usage. Effective expression in basic technical writing is stressed. This course meets five hours each week.

BA 113—Introduction to Business (71/2 weeks) (2 cr)

(Prerequisite: Reading Improvement 099) Students recognize the structure of business, its activities and problems. An understanding of the nature of the business world also is stressed. This course meets five hours per week.

BA 121—Business Communications I (5 cr)

(Prerequisite: Reading Improvement 099) The student learns to communicate effectively through the study and application of writing fundamentals. Students also have the opportunity to develop oral and listening skills. This course meets five hours per week.

BA 122—Business Communications II (3 cr)

(Prerequisites: BA 121 and 25 words a minute typing skill) The student learns to write effective business letters, reports and memoranda. Continued use of oral communication and listening skills is stressed. This course meets three hours per week.

BA 131—Human Relations (71/2 weeks) (2 cr)

(Available also for Trades and Technologies students) Students improve employee attitudes toward themselves and others. The importance of interpersonal relationships and the work ethic is stressed. This course meets five hours per week.

BA 133—Principles of Management (3 cr)

(Prerequisite: Reading Improvement 099) Students learn the basic management functions and apply them to planning, organizing, staffing, directing and controlling. This course meets three hours per week.

BA 150L—Introduction to Computer Processing (3 cr)

(Prerequisite: 25 words a minute typing skill) Students learn to use automated information systems, computer hardware, data entry and business software applications. Hands-on experience with microcomputers is provided. This course meets five hours per week.

BA 211—Business Law (3 cr)

(Prerequisite: Reading Improvement 099) 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. Students analyze and decide practical problems in law. This course meets three hours per week.

BA 215—Money and Banking (3 cr)

(Prerequisite: ACCT 102L) This course covers the history, nature and function of money. Students learn to apply methods of institutional control and theories of monetary policy. This course meets three hours a week.

BA 222—Principles of Marketing (3 cr)

(Prerequisite: ACCT 101L, BA 133 or permission of advisor) Students learn to apply total marketing concepts—from the creation of the product, pricing and promotion to the distribution network—from a management point of view. Students complete a computer simulation project. This course meets three hours each week.

BA 226—Principles of Finance (3 cr)

(Prerequisite: ACCT 102L) Concepts and theories of finance are covered including the history of money, monetary systems and credit. Forms of business organizations, capital budgeting, source of funds, marketing securities, capital structure, foreign expansion and reorganization of a business firm are examined. This course meets three hours a week.

BA 240—Investments (3 cr)

(Prerequisite: ACCT 102L) Students learn to apply investment analysis, management techniques and objectives and values and risks. This course meets three hours a week.

BA 251—Retail Merchandising Management (3 cr)

(Generally offered fall term; prerequisite or corequisite: ACCT 102L, BA 222 or permission of advisor) Students study and apply methods and practice of retail merchandising including target market decisions, buying, pricing, store locations and strategic planning. Computer lab assignments applying the theory are included. This course meets three hours each week.

BA 255L—Desktop Publishing (3 cr)

(Prerequisite: BA 150L or CSCI 101 or CSCI 150 or SS 132 or permission of advisor) Students will be given hands-on experience in desktop publishing. Students will use the microcomputer publishing process to edit, typeset, design and do graphic production and page makeup. This course meets five hours a week.

BA 256—Employment Procedures and Techniques (7½ weeks) (2 cr)

This course provides the requisite skills for success in obtaining employment. Students prepare cover letters and resumés and apply interviewing skills, telephone use in the job search, test-taking techniques and a positive attitude and self-confidence. This course meets for three hours per week.

BA 257L—Presentation Graphics (3 cr)

(Prerequisite: BA 150L or CSCI 101 or CSCI 150 or SSI32 or permission of advisor) This course provides hands-on experience in graphics presentation software using a PC. The course covers charting, drawing, organizing and displaying images. This course meets five hours per week.

BA 260—Purchasing (3 cr)

(Generally offered summer term; prerequisite: ACCT 101L or permission of advisor) This course covers problems involved in public and private sector purchasing. Students apply value analysis, solicitation process and negotiation techniques, vendor selection, purchasing law, transportation considerations and inventory control practices. This course meets three hours per week.

BA 261—Introduction to Tourism and Hospitality (3 cr)

A comprehensive course introducing the student to the hotel, motel, restaurant, convention and tourism industry. This course meets three hours per week.

BA 262—Introduction to the Hospitality Industry (3 cr)

Students will understand the hospitality industry as a whole and learn how all departments can and must work together. The course covers both the lodging and food service industries. This course meets three hours per week and is equivalent to El 101.

BA 263-Tourism and the Hospitality Industry (3 cr)

This course explains how and why people travel, how travel acts as a satisfier of needs and wants, and how marketing efforts can influence travel decisions. This course meets three hours per week and is equivalent to El 320.

BA 264—Front Office Procedures (3 cr)

Students apply efficient management concepts to front office functions and relate how front office activities affect other departments. The computer is used throughout every phase of the guest cycle. This course meets three hours per week and is equivalent to El 333.

BA 265—Marketing of Hospitality Services (3 cr

Students develop, implement and evaluate a marketing plan and identify and reach prospective customers using marketing tactics specific to hospitality services. This course meets three hours per week and is equivalent to El 375.

BA 266—Hotel/Motel Law (3 cr)

Students study potential legal problems associated with the hospitality industry and how important legal considerations can affect the industry. This course meets three hours per week and is equivalent to El 390.

BA 270—Real Estate Law (3 cr)

The rights and obligations of the real estate agent with regard to contractual and fiduciary duties owed to the parties being represented are established in this course. Major topics include ownership rights, law of agency and law of contracts. This course has been certified to earn 30 hours of credit toward the requirements needed to sit for the New Mexico Real Estate Licensing Exam. It meets four hours a week for 12 weeks.

BA 271—Real Estate Practice (3 cr)

This is a course in general real estate practice for persons needing a review or wanting a basic knowledge of the real estate business. This course has been certified to earn 30 hours of credit toward the requirements needed to sit for the New Mexico Real Estate Licensing Exam. It meets four hours a week for 12 weeks.

BA 272—Real Estate Appraisal (3 cr)

(Prerequisite: BA 271 or permission of instructorladvisor) An introduction to accepted methods for estimating the value of real property, this course covers fundamentals of real estate appraisal of both land and improved residential property and techniques used by professional appraisers. This course meets four hours a week for 12 weeks.

BA 273—Real Estate Finance (3 cr)

(Prerequisite: BA 271) This is a study of financing real property, the money market, sources and cost determinants of mortgage money, financial leverage, value of existing mortgage in relation to the current market and purchaser qualification. This course meets four hours a week for 12 weeks.

BA 274—Real Estate Investment (3 cr)

(Prerequisites: BA 270, BA 271) This course gives the student a basic understanding of investment principles to ensure sound investment decisions and assessment of property potential. The student gains an awareness of the marketplace and the needs of the public through text, lecture and case study. This course meets four hours a week for 12 weeks.

BA 275—Property Management (3 cr)

This course covers residential and commercial rental property management. Topics include marketing of services, market and prospect analysis, record-keeping, laws relating to rental properties, legal documents including leases and management contracts, property maintenance, employee relations, insurance, security and administration. This course meets four hours a week for 12 weeks.

BA 277—Real Estate Comprehensive Contracts (3 cr)

(Prerequisites: BA 270, BA 271) Instruction is provided in contract law relating to basis of equipment and premises, buyer-seller-agent relationships, basis of law governing contracts, written contracts, misrepresentations, special relationships and contract remedies. This course meets four hours a week for 12 weeks.

BA 278-Real Estate and Taxes (3 cr)

(Prerequisites: BA 270, BA 271) This course deals with government involvement in real estate and taxes. Units cover municipal and state taxes affecting real estate, and the federal government's role in the sale and income derived from real estate. This course meets four hours a week for 12 weeks.

BA 284—Salesmanship (3 cr)

(Prerequisite: Reading Improvement 099) Students learn to demonstrate selling skills along with how to promote oneself, goods and services. This course meets three hours each week.

BA 286—Advertising (3 cr)

(Generally offered winter term; prerequisite: BA 222 or permission of advisor) This course gives the student the opportunity to apply the many elements of advertising. The student develops an advertising plan, selects and schedules media, budgets, designs and produces advertisements, and evaluates advertising effectiveness. This course meets three hours each week.

BA 287—Delta Epsilon Chi Competition (1 cr)

Students acquire skills needed to compete at state and national career development conferences. Students use sample written tests, role-playing case problems and classroom assignments involving salesmanship, marketing, problem solving and human relations. This course meets two hours each week.

BA 298—Supervised Work Experience (4 cr)

(Prerequisite: ACCT 102L and advisor's permission) Students work a minimum of 150 hours at business/training-related supervised work stations. Student trainees are paid by the cooperating firm and supervised jointly by T-VI and the employer.

BA 299—Topics—Retail Merchandising (3 cr)

(Prerequisites: BA 222 and permission of advisor) Students study retail merchandising on a self-paced basis under direction of an instructor. Students complete a research paper or project.

Court Reporting

CR 103L-Machine Shorthand I (7 cr)

(Prerequisites: Reading Improvement 099 or equivalent and SS 101L or equivalent) This course introduces the principles of machine shorthand theory. The keyboard is learned, and the minimum speed requirement is 60 wpm. This course meets 10 hours each week.

CR 104L—Machine Shorthand II (80-100) (7 cr

(Prerequisite: CR 103L) Literary, jury charge and testimony materials are introduced. Speed reaches 100 wpm. This course meets 10 hours each week.

CR 121—Introduction to Court Reporting (71/2 weeks) (2 cr)

This beginning course presents an overview of the court reporting profession. Information is given on the certification process, testing requirements and the NSRA organization. This course meets five hours each week.

CR 132—Medical Terminology and Anatomy (3 cr)

(Prerequisite: Reading Improvement 099) This course involves a study in medical terminology, with an emphasis in learning 350 Greek and Latin prefixes, suffixes, word roots and combining forms through the use of video cassettes. A concentrated study of the human anatomy is also included in the course. This course meets three hours each week.

CR 204L—Machine Shorthand III (120–140) (4 ct)

(Prerequisite: CR 104L) Course continues testimony, literary and jury charge. Speed reaches 140 wpm. This course meets 10 lab hours each week.

CR 205L—Machine Shorthand IV (160-180) (4 cr)

(Prerequisite: CR 204L) Testing includes literary (160 wpm), jury charge (170 wpm), and testimony (180 wpm). Course includes legal and medical dictation. Speed reaches 180 wpm. This course meets 10 lab hours each week.

CR 206L—Machine Shorthand V (200–225) (4 cr)

(Prerequisite: CR 205L) Machine shorthand speed requires 225 wpm testimony, 200 wpm jury charge and 180 wpm literary. This course meets 10 lab hours each week.

CR 250L—Computer-Aided Transcription (CAT) (3 cr)

(Prerequisite: CR 204L and SS 133) This course provides hands-on training in using the computer to produce transcripts. The student builds a personal dictionary and learns about litigation support, key word indexing, data storage and record-keeping. This course meets five hours each week.

CR 260—Court Reporting Procedures (3 cr)

(Prerequisites: CR 205L, CR 250L) Students apply procedures in general courtroom, freelance reporting and transcript format. Instruction includes the reporting of videotape depositions. Writing skills and techniques for computer-aided transcription are reviewed. Students prepare resumés and acquire interviewing skills in this course. This course meets three hours each week.

CR 298—Supervised Work Experience (4 cr)

(Prerequisites: CR 205L and CR 250) Course requirements are 150 clock hours of practical experience under the supervision of a Certified Shorthand Reporter. The student intern is required to record and to transcribe a minimum of 10 pages of transcript in two hours with 95 percent accuracy.

Entrepreneurship

ENTR 101L—Entrepreneurship Lab (4 cr)

The instructor meets with each student to determine specific goals, problems or needs. Programs are then tailored to the individual. Daily tasks/activities are accomplished through lecture, group activities and independent work. This lab meets six hours each week: three hours theory and three hours lab.

Legal Assistant Studies

LAS 101—Introduction to Legal Assistant Studies (3 cr)

(Prerequisites: English 100 and Reading 100 or equivalent) This course covers the definition and role of the legal assistant, human relations, ethical responsibilities, the legal system, legal analysis and the process of litigation.

LAS 102—Business Organizations (3 cr)

(Prerequisites: LAS 101, LAS 123) Various types of business entities including sole proprietorships, partnerships and corporations are examined in this course. Also looked at are agency principles, franchising and regulatory requirements.

LAS 111-American Law and Ethics (3 cr)

(Prerequisites: LAS 101, LAS 123) The origins, nature, history and structure of the American judicial system are studied. Students will survey constitutional principles and cases. The rules of professional conduct for lawyers are emphasized.

LAS 123—Torts (3 cr)

(Prerequisite: English 100 and Reading 100 or equivalent) This is a course in substantive tort law, concentrating on negligence, products liability, nonphysical injuries and their remedies and defenses. Students are given an overview of the trial process and will complete projects requiring basic legal research.

LAS 124—Legal Research and Writing I (3 cr)

(Prerequisites: CSCI 101, ENG 101, LAS 101, LAS 123) The student is introduced to the principles and skills of writing case briefs and legal memoranda, with a focus on basic legal research sources and techniques, including Westlaw training. Significant time is spent at the law library.

LAS 201—Contract Law (3 cr)

(Prerequisites: LAS 102, LAS 111, LAS 124) This course is an introduction to the law of contracts, rights, and responsibilities, consideration, types of contracts, remedies and assignments.

LAS 203—Civil Litigation, Investigation and Discovery (3 cr)

(Prerequisites: LAS 102, LAS 111, LAS 124) Client interviewing, investigation, commencement of actions, service of process, arbitration, discovery, settlement, trial and post-trial procedures are discussed in this course. Rules of civil procedure for the various courts, as well as the rules of evidence and appellate procedure are reviewed.

LAS 204—Legal Research and Writing II (3 cr)

(Prerequisites: LAS 102, LAS 111, LAS 124) As a continuation of Legal Research and Writing I, this course is designed to provide training in more advanced legal research problems with a focus on analysis and writing. It requires the preparation of sophisticated legal memoranda and documents.

LAS 211—Real Estate Law (3 cr)

(Prerequisites: LAS 102, LAS 111, LAS 124) This dourse is designed to provide knowledge of the fundamental rights of ownership, obligations of the real estate agent regarding contractual encumbrances, transfers, fiduciary rights and obligations owed to the parties represented, and basic contract law.

LAS 221—Wills, Probate and Estate Planning (3 cr) (Prerequisites: LAS 201, LAS 203, LAS 204) This course covers drafting of wills and trusts, administration of estates, formal and informal probate proceedings and estate tax returns.

LAS 222—Criminal Procedure (3 cr)

(Prerequisites: LAS 201, LAS 203, LAS 204) This course focuses on criminal procedures including search and seizure law and preparation of cases from both the prosecution and defense perspectives.

LAS 223—Domestic Relations (3 cr)

(Prerequisites: LAS 201, LAS 203, LAS 204) Legal issues in family relations are explored in this course, with emphasis on local procedures in the Domestic Relations court.

LAS 230—Advanced Civil Litigation (3 cr)

(Prerequisites: LAS 201, LAS 203, LAS 204) Students become involved in the litigation process by participating in a hypothetical case, completing tasks from client interviewing to preparation for appeal. Emphasis is placed on evidence rules and concepts.

LAS 232—Personal Injury: Legal and Medical Aspects (3 cr)

(Prerequisites: LAS 201, LAS 203, LAS 204) This course deals with documentation of personal injuries and litigation in the areas of tort, workers' compensation and social security.

LAS 234—Administrative Law (3 cr)

(Prerequisites: LAS 201, LAS 203, LAS 204) Principles relating to policies, practices and procedures of governmental agencies and state and local administrations are included in this course.

LAS 236—Discrimination/Labor/Employer-Employee Relations (3 cr)

(Prerequisites: LAS 201, LAS 203, LAS 204) This course includes study of the history of discrimination law and current federal protections, the principle of equal treatment, litigation involving unequal treatment, seniority, sexual and racial harassment, pay equity, pregnancy discrimination, labor relations and remedies.

LAS 238—Law Office Management and Human Relations (3 cr)

(Prerequisites: CSCI 101, LAS 101) This two-part course covers the administrative and human dynamics of working in a legal environment.

LAS 298—Supervised Work Experience (4 cr)

(Prerequisites: LAS 201, LAS 203, LAS 204 and approval of the academic advisor) Students work a minimum of 150 hours at legal assistant-related work stations. The student may be paid by the cooperating firm and is jointly supervised by T-V1 and the employer.

LAS 299—Topics Course (3 cr)

(Prerequisites: LAS 201, LAS 203, LAS 204 and approval of the academic advisor) In this course the student will choose an area of study in consultation with an instructor supervisor. A sophisticated legal research paper will be completed by the student.

Sales and Cashiering

SALE 101L—Sales-Cashier Lab (9 cr)

(Prerequisite: Placement test) Students apply fundamentals of merchandising math and cashiering and demonstrate techniques of retail salesmanship. Human and customer relations are covered extensively. This course meets 15 hours per week: five hours theory and 10 hours lab.

SALE 198—Supervised Work Experience (4 cr)

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

Secretarial Studies

SS 101A: Typing Lab I (3 cr)

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Typing by the touch method and basic arrangement of business letters, memos, reports, tables and forms are included. A minimum typing speed of 25 words per minute should be attained in this course. This course meets five hours per week. SS 101A and SS 101B are equivalent to SS 101L.

SS 101B: Typing Lab I (3 cr)

(Prerequisite: SS 101A) Basic typing skills are reviewed with emphasis on building speed, accuracy and number control. Production emphasis is on business letters, reports and forms. A minimum typing speed of 40 words per minute should be attained in this course. This course meets five hours per week. SS 101A and SS 101B are equivalent to SS 101L.

SS 101L—Typing Lab I (6 cr)

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 reports. This course meets 10 hours per week.

SS 102L—Typing Lab II (6 cr)

(Prerequisite: SS 101L) Typing competence of at least 50 words per minute is the goal. Students produce mailable business letters, manuscripts, tables, business forms and other correspondence. This course meets 10 hours each week.

SS 111—Business Mathematics/Calculators (5 ct)

(Prerequisite: MATH 099 or equivalent) This course features a combined approach to teaching business mathematics and calculators. Students receive a thorough review of math fundamentals and their applications in solving business problems. Calculator instruction stresses use of the touch method. This course meets five hours per week.

SS 112—Secretarial Accounting (3 cr)

(Prerequisites: SS 111, SS 132) This course is a study of the complete bookkeeping cycle including preparation of the balance sheet, income statement and worksheet. Emphasis is on journalizing, posting, accounts payable and accounts receivable. Payroll accounting also is covered. Students work on a computerized package covering accounts receivable, accounts payable and payroll. This course meets three hours per week.

SS 113—Cashiering (3 cr)

Operation of the cash register, including the ability o solve procedural problems that occur at a register and checkout station, is developed in this course. Instruction also focuses on bank teller applications, fundamentals of retail sales, and store security. This course meets three hours per week.

SS 121—Office Communications I (5 cr)

(Prerequisite: Reading Improvement 099 or equivalent) This course is an introduction to oral and written communications with emphasis on ocabulary building, spelling, grammar, punctuation, oral expression and listening skills. This course meets five hours per week.

SS 122—Office Communications II (3 cr)

(Prerequisites: SS 101L, SS 121) This course is a continuation of SS 121 with greater emphasis on punctuation, and sentence and paragraph contraction. Students receive an introduction to telephone techniques. This course meets three hours per week.

SS 132—Information Processing Concepts (71/2 weeks) (2 cr)

This course provides the student with an understanding of the computer and the word processor—how they work, how they process data to produce useful information and how they can be integrated as a tool in the work environment. This course meets five hours each week.

SS 133L—Word Processing (3 cr)

(Prerequisites: SS 101L, SS 132 or BA 150L) Students receive instruction in the use of word processing software on the microcomputer. Emphasis is on practical office applications. This course meets five hours each week; three hours theory and two hours lab.

SS 134—Shorthand I (Gregg) (5 cr)

This introductory course covers the theory and writing of Gregg shorthand. Transcription skills are introduced. This course meets five hours per week.

SS 135—Shorthand I (Alphabetic) (5 cr)

Reading and writing of ABC Stenoscript shorthand is learned. Transcription skills are introduced. This course meets five hours per week.

SS 136—Shorthand II (4 cr)

(Prerequisites: SS 134 or SS 135 or knowledge of theory of a shorthand system and a minimum typing skills of 25 words a minute on a five-minute timed writing or SS 101L) The goal for this course is a minimum dictation speed of 70 words per minute on new materials and transcription at a minimum rate of 14 words per minute. This course meets five hours per week for theory and lab.

SS 201L—Information Processing Lab (6 cr)

(Prerequisites: SS 102L, SS 133) Advanced instruction is provided in the use of microcomputers. Applications include advanced word processing, electronic spreadsheets and database management. This course meets 10 hours per week.

SS 207L—Legal Typing Lab (6 cr)

(Prerequisites: SS 102L; corequisite: SS 240) Instruction includes the preparation of mailable legal correspondence and forms from audio tape, typed copy and preprinted forms. Activities include language usage and a variety of formats and documents covering the major fields of law. This course meets 10 hours per week.

SS 230—Office Communications III (3 cr)

(Prerequisites: SS 101L, SS 122) Principles of writing and composition of business correspondence are covered. Continued emphasis is on grammar, punctuation, spelling, oral communication and listening skills. This course meets three hours per week.

SS 234—Shorthand III (3 cr)

(Prerequisite: SS 136) The goal for this course is a minimum dictation speed of 80 words per minute on new materials and transcription at a minimum rate of 20 words per minute. This course meets five hours per week.

SS 240—Legal Terminology/Procedures (3 cr)

(Prerequisite: SS 101L) Meaning and spelling of legal terminology and legal Latin terminology, familiarization with legal procedures and client relationships are included in this course. This course meets three hours each week.

SS 250—Machine Transcription (3 cr)

(Prerequisites: SS 102L, SS 122) This course builds speed and accuracy in the transcription of mailable copy at a minimum rate of 20 words per minute. This course meets five lab hours per week.

SS 260—Business Procedures (3 cr)

(Prerequisites: SS 102L, SS 122) Office procedures, records management, human relations and job portfolio preparation are included in this course. This course should be taken in the student's final term. This course meets three hours per week.

SS 281—Certified Professional Secretary Review—Behavioral Science (1 cr)
This course reviews behavioral science in business in preparation for the Certified
Professional Secretary exam. This course meets three hours a week for five weeks. (Fall term)

SS 282—Certified Professional Secretary Review—Business Law (1 cr)
This course reviews business law in preparation for the CPS exam. This course meets three hours a week for five weeks. (Fall term)

SS 283—Certified Professional Secretary Review—Economics and Management (1 cr)

This course reviews economics and management in preparation for the CPS exam. This course meets three hours a week for five weeks. (Fall term)

SS 284—Certified Professional Secretary Review—Accounting (1 cr)
This course reviews accounting in preparation for the CPS exam. This course meets three hours a week for five weeks. (Winter term)

SS 285—Certified Professional Secretary Review—Office Administration and Communications (1 cr)

This course reviews office administration and communications in preparation for the CPS exam. This course meets three hours a week for five weeks! (Winter term)

SS 286—Certified Professional Secretary Review—Office Technology (1 cr)
This course reviews office technology in the modern office in preparation for the CPS exam. This course meets three hours a week for five weeks. (Winter term)

SS 298—Supervised Work Experience (4 cr)

(Prerequisites: SS 102L and typing skill of 55 words per minute on a five-minute timed writing and permission of the instructoriacademic advisor) Students work a minimum of 150 hours at office-related supervised work stations. The student trainee is paid by the cooperating firm and supervised jointly by T-VI and the employer. The student and employer determine the weekly contact hours.

Health Occupations

Cardiac Monitor Technician

HUC 150C—Cardiac Monitor Technician (4 cr)

(Prerequisite: admission to the program) Heart anatomy and physiology, interpretation of ECG strips, types of cardiac drugs, and various cardiac arrhythmias are covered in the class. Clinical experiences at local hospitals provide opportunities to apply classroom theory.

Emergency Medical Technician

EMS 160L—Basic Emergency Medical Technician Skills (6 cr)

Emergency medical techniques currently used to provide emergency care with rescue squads or ambulances are covered in the class. An example of the content includes use of airway adjuncts, oxygen therapy, cardio pulmonary resuscitation (CPR), splinting, patient assessment and treatment for shock. Laboratory experiences allow students to practice medical techniques learned in class. Classes meet Mondays and Wednesdays or Tuesdays and Thursdays for four hours each day.

Licensed Practical Nurse Refresher

LPNR 155L—Refresher Theory/Lab (6 cr)

(Prerequisite: admission to the course; corequisite: LPNR 165C) Medical and surgical trends, new procedures and techniques, and pharmacology are covered in the theory portion of the program. Classes are Monday through Wednesday. CPR is taught during the first week.

LPNR 165C—Refresher Clinical Experience (2 cr)

(Corequisite: LPNR 155L) Medical and surgical clinical experiences include administration of medications. Clinical experiences are eight hour days Thursdays and Fridays except the first week of classes.

Nursing Clerk Assistant

HUC 110L—Nursing Clerk Assistant Theory and Clinical Practice (6 cr)

This course combines a number of topics including: filling out forms, transcription of doctors' orders, computer usage, medical terminology and abbreviations, review of anatomy and physiology, pharmacology and communication skills. Supervised clinical experiences take place in local hospitals during the last four weeks of the program.

Nursing Home/Home Health Attendant

NANH 102L—Nursing Home/Home Health Attendant Theory/Lab (5 cr)

Basic nursing skills to work in a nursing home, rehabilitation center or private home, giving personal and restorative care are reviewed. Classes are held Monday and Thursday afternoons.

Perioperative Registered Nurse Specialist

PRNS 255L—Perioperative Registered Nurse Specialist Theory/Lab (8 cr) (Prerequisite: admission to the program; corequisite: PRNS 265C) This course content is divided into five units: history and philosophy of perioperative nursing, the surgical environment, perioperative care, intraoperative care and postoperative care. Laboratory experiences in a mock operating room allow practice of skills. Class meets 25 hours a week with varying theory and clinical hours for 15 weeks.

PRNS 265C— Perioperative Registered Nurse Specialist Clinical Experience (6 cr) (Corequisite: PRNS 255L) Students apply new and previously learned concepts to perioperative nursing in hospital operating rooms.

Registered Nurse Refresher

RNR 255L—Refresher Theory/Lab (6 cr)

(Prerequisite: admission to the program; corequisite: RNR 265C) Trends in medical-surgical, geriatric, maternal-child and psychiatric nursing, pharmacology, and fluid and electrolytes are covered in the course. Classes are Monday through Wednesday. CPR is taught during the first week of class.

RNR 265C—Refresher Clinical Experience (2 cr)

(Corequisite: RNR 255L) Students have supervised medical and surgical clinical experiences including patient care. Clinical experiences are eight hour days on Thursdays and Fridays except the first week of classes.

Health Unit Clerk Program

HUC 101L—Health Unit Clerk Theory and Lab (8 cr)

(Prerequisite: admission to the program) This course combines a number of topics including; orientation to the hospital, patient confidentiality, role of the health unit clerk, medical terminology, anatomy, abbreviations, communications, pharmacological terms, computerized patient information systems, and data forms. The course meets five hours a day, five days a week for nine weeks.

HUC 121C—Health Unit Clerk Clinical Practice (7 cr)

(Prerequisites: Successful completion of HUC 101L and ability to type 25 wpm)
Supervised clinical experience takes place in local hospitals and hospital out-patient clinics during the last six weeks of the program. The course meets five hours a day, five days a week for six weeks.

Medical Laboratory Technician

MLT 110L-Introduction to Medical Technology (4 cr)

(Prerequisite: admission to the program) The student is introduced to basic medical laboratory techniques emphasizing urinalysis. The course includes principles and procedures of the chemical and microscopic analysis of urine, laboratory mathematics, phlebotomy skills and safety procedures. Class meets six hours per week.

MLT 112L—Clinical Immunology (2 cr)

(Prerequisite: MLT 110L) This course offers a basic study of the body's immune response and serological methods used in testing for immunological reactions. Class meets four hours per week.

MLT 151C—Clinical Experience Urinalysis/Phlebotomy (4 cr)

(Prerequisite: MLT 110L) This course is designed for students to practice procedures learned in urinalysis and phlebotomy by giving them practical experience at affiliated hospitals. Class meets 12 hours per week.

MLT 201L—Clinical Chemistry (7 cr)

(Prerequisites: CHEM 121L, CHEM 122L, MLT 110L, MLT 112L, MLT 151C) The basic chemical reactions that occur in normal and disease processes of the body and the principles and methods used in testing for chemical components in blood and other body fluids are studied in this course. It includes basic instrumentation and laboratory experiences for performing the basic procedures used in a clinical chemistry laboratory. Class meets 11 hours per week.

MLT 202L—Clinical Microbiology (5 cr)

(Prerequisites: BIO 239/239L, MLT 110L, MLT 112L, MLT 151C, MLT 201L) A comprehensive study of clinical bacteriology, mycology and parasitology is presented including macroscopic and microscopic identification of organisms, antibiotics susceptibility testing, life cycles, and pathology and etiology of various diseases. Virology is introduced. Class meets nine hours per week.

MLT 203L—Clinical Hematology/Coagulation (6 cr)

(Prerequisites: MLT 110L, MLT 112, MLT 151C, MLT 201L) A basic study is presented of normal and abnormal blood cell enumeration and morphology, and the coagulation mechanisms. Included are the principles of routine testing methods involved in cell counting, evaluation of coagulation factors and other routine procedures performed in the hematology laboratory. There also is laboratory experience in the performance of basic procedures used in a clinical hematology laboratory. Class meets 10 hours per week.

MLT 204L—Clinical Immunohematology (3 cr)

(Prerequisites: MLT 110L, MLT 112L, MLT 151C, MLT 201L) This course is a basic study of theory, principles and test methods for determining blood group typing, antibody detection and identification, crossmatching and component therapy. Laboratory experiences are included for practicing the basic procedures performed in a clinical immunohematology lab. Class meets five hours per week.

MLT 250C—Clinical Experience (12 cr)

(Prerequisites: MLT 110L, MLT 112L, MLT 151C, MLT 201L, MLT 202L, MLT 203L, MLT 204L) Supervised clinical practice takes place in the clinical laboratories of affiliated hospitals with rotations through hematology/coagulation, microbiology, immunology, chemistry and immunohematology departments. Students practice procedures and apply theory learned in MLT 201L, MLT 202L, MLT 203L, MLT 204L AND MLT 112L. Class meets 36 hours per week.

Nursing

NURS 124C—Fundamentals of Nursing (7 cd)

(ADN Students—Prerequisite: Departmental approval. Prerequisite/Corequisite: BIO 237/247L, ENG 101, PSY 105. PN Students—Prerequisite: Departmental approval. Prerequisite/corequisite: BIO 136/139L, NUTR 25, PSY 105) The conceptual framework of the curriculum and nursing process is introduced. Concepts of the individual, society, health and nursing are developed using Orem's self-care deficit model. Nursing skills are developed to meet the universal and developmental needs of individuals across cultures, with topics including communication, teaching-learning, health care delivery systems, legal/ethical role of nurses, introduction to pharmacology and medication administration. In laboratory/clinical experiences students carry but nursing activities to promote universal and developmental self-care in adult and elderly clients. Lecture: four hours; lab/clinical: nine hours.

NURS 125C—Medical Surgical Nursing (8 cr)

(ADN Students—Prerequisites: BIO 237/247L, NURS 124C, ENG 101, PSY 105; corequisites: BIO 238/248L, NUTR 125, PSY 220. PN Students—Prerequisites: NURS 124C, BIO 136/139L; NUTR 125, PSY 105; Corequisite: COMM 221, PHIL 245, PN 131) A theoretical study of the nursing process for adult clients. Nursing process is used to meet self-care deficits of clients unable to meet their own needs due to common illnesses or injuries. The role of the nurse in promoting health deviation self-care in adult clients is presented. Students apply theoretical content with adult clients in medical-surgical acutecare facilities. Lecture: four hours; clinical: 12 hours.

NURS 201—Nursing Concepts for LPN/Transfer Students (2 cr)

(ADN Students—Prerequisites: Acceptable ACT scores for admission, ENG 101, PSY 105, BIO 237/247L. PN Students—Prerequisites: Acceptable ACT scores for admission; Corequisite: PSY 105, NUTR 125, BIO 136/139L) This course is an introduction to the conceptual framework of the nursing program and an in-depth study of the nursing process. The process of role change from LPN to RN is included. This course is required for LPNs and transfer applicants who seek advanced placement in the practical nurse or associate degree program.

NURS 224C—Maternity Nursing (5 cr)

(Prerequisites: BIO 238/248L, NURS 125C, ENG 101, NUTR 125, PSY 220; corequisites: NURS 225C) Study of the childbearing family with universal, developmental and health deviations self-care requisites is presented. Students are able to integrate the nursing process, client education, nursing care systems and assessment skills. Theoretical concepts are applied in perinatal settings. Lecture: three hours; clinical: six hours.

NURS 225C—Psychiatric Nursing (5 cr)

(Prerequisites: BIO 238/248L, NURS 125C, ENG 101, NUTR 125, PSY 220; corequisites: NURS 224C) The study of self-care deficits in clients with psychiatric health deviations is presented. The concept of therapeutic communication is developed as a framework for using the nursing process to provide care for clients. The course also presents concepts of various psychotherapeutic approaches used in psychiatric settings. Theoretical concepts are applied in various clinical sites. Lecture: three hours; clinical: six hours.

NURS 231—Pharmacology in Nursing (3 cr)

(Prerequisites: BIO 238/248L; NURS 125C) This course presents the concepts necessary for judgment in the use of chemical agents and the theoretical base required to administer medications. Information presented includes the role of the nurse in assisting the client with self-administration of medications, history of pharmacology, drugs and their therapeutic use, adverse reactions, precautions, contraindications, food and drug interactions, psychosocial aspects of drug use and drug abuse.

NURS 242—Nursing Trends and Issues (1 cr)

(Corequisite: NURS 246C) Students discuss the role of the technical nurse in relation to trends, legal/ethical issues, professional relationships and health care delivery. The course is designed to develop critical thinking, and begin to apply principles of client-care management.

NURS 246C-Pediatrie-Advanced Medical Surgical Nursing (10 credits)

(Prerequisites: NURS 224C, NURS 225C; prerequisite/corequisites: BIO 239/239L, NURS 231; corequisite: NURS 242) A theoretical study of the nursing process using nursing systems as defined by Orem to care for children and adults. The nursing process is used to meet health deviations of children and adults unable to meet their self-care needs due to developmental factors or more complex health conditions. The role of the technical nurse in working with families is presented. A clinical practicum provides application of theoretical concepts in the care of children and families in acute-care facilities and in adult clients with more complex health conditions. Lecture: five hours; clinical: 15 hours.

PN 131—Pharmacology (3 cr)

(Prerequisites: BIO 136/139L, NURS 124C; corequisite: NURS 125C) Focus is the effects of commonly used drugs on various body systems. Dosages, application, side effects and/or toxicity, laboratory tests performed to monitor actions, and effects of specific drugs are discussed. Nursing implications and responsibilities are integrated.

PN 146C—Maternal-Child/Medical-Surgical Nursing (16 cr)

(Prerequisites: NURS 125C; PN 131) A theoretical study of the nursing process to care for maternal-child clients and adults. The nursing process is used to meet the self-care deficits of children and adults unable to meet their self-care needs due to developmental factors or more complex health conditions. The legal/ethical role of the practical nurse is presented. Clinical experiences in maternity, pediatric and medical-surgical areas provide for application of theoretical concepts. Lecture: nine hours; clinical: 21 hours.

Nursing Assistant

NA 101—Nursing Assistant Theory (4 cr)

(Prerequisite: admission to the program; corequisites: NA 110L, NA 131) During the first nine weeks students attend classes covering basic nursing skills used in health care agencies and homes. Also covered are geriatrics, home management, community resources, purchase and preparation of foods. Class meets five hours a week for five weeks then 15 hours a week for four weeks.

NA 110L—Nursing Assistant Lab (2 cr)

(Corequisites: NA 101, NA 131) Students practice basic nursing skills in the laboratory. Class meets five hours a week for five weeks.

NA 121C—Nursing Assistant Clinical Experiences (6 cr)

(Prerequisites: Successful completion of NA 101) NA 110L, NA 131, and NA 14) Four of the last six weeks of the program include supervised practice of nursing skills in hospitals, elder care centers or out-patient clinics throughout the city. The last two weeks are spent in a supervised preceptorship where students learn new skills on an individual basis in a job-like setting. Class meets 21 hours a week for six weeks.

NA 131—Health Communications (3 cr)

(Corequisites: NA 101, NA 110L) This course includes introductions to medical terminology, anatomy and physiology, and nutrition. The basic structure and normal function of the body systems and some of the health problems which can occur in those systems are covered. Class meets five hours a week for nine weeks.

NA 141-Mathematics (1 cr)

(Corequisites: NA 101, NA 110L, NA 131) Basic math is reviewed in this course with practice working selected problems. Class meets five hours a week for five weeks.

Phlebotomy

PHLB 101L—Phlebotomist Theory and Lab (6 cr)

(Prerequisite: admission to the program; corequisite: PHLB 121C) Students learn the procedures for collecting blood and other specimens from patients. Interpersonal relationships with patients, peers and staff are stressed. An introduction to the anatomy and physiology of the major body systems, computer processes and laboratory clerical duties also is included. Class meets five hours a day weeks 1—3 and week 10. Weeks 4—9 class meets Mondays and Fridays five hours each day.

PHLB 121C—Phlebotomist Clinical Practice (3 cr)

(Corequisite: PHLB 101L) Students practice skills and apply the theory learned in class during supervised clinical practice in city hospitals and/or clinics. Class meets five hours per day Tuesday through Thursday weeks 4—9.

Respiratory Therapy Technician

RTT 110—Respiratory Therapy Principles and Practices I (3 cr)

(Prerequisite: admission to the program; corequisites: BIO requirement, RTT 115L, RTT 121C, RTT 131) This course covers respiratory therapy as a health services profession—the personal qualifications, ethics, expectations and opportunities, medical terminology and charting. It also covers practices and procedures of basic respiratory care including cardiopulmonary clinical assessment, medical gas administration, oxygen therapy, principles of microbiology, infection control and equipment maintenance. Class meets three hours a week for 15 weeks.

RTT 111-Respiratory Therapy Principles and Practices II

(Prerequisites: BIO requirement, RTT 110, RTT 115L, RTT 121C, RTT 131; corequisites: A & P requirement, RTT 116L, RTT 122C) Additional theory of respiratory therapy procedures is presented with emphasis on breathing treatments, chest physiotherapy and airway management. Basic principles of pharmacology are taught along with the procedure of administering medicated aerosol therapy. The concepts and skills required to perform basic pulmonary function testing are included. Class meets three hours a week for 15 weeks.

RTT 112—Respiratory Therapy Principles and Practices III (5 cr)

(Prerequisites: BIO and A & P requirements, RTT 111, RTT 116L, RTT 122C; corequisites: RTT 117L, RTT 123C, RTT 132) Concepts and principles of critical care are introduced for patients with life threatening diseases. Emphasis is on learning basic principles of mechanical ventilatory support for neonatal, pediatric and adult patients who need life support maintenance. Concepts and theories of critical care medicine are introduced. Class meets five hours a week for 15 weeks.

RTT 115L—Respiratory Therapy Lab I (1 cr)

(Corequisites: RTT 110, RTT 121C, RTT 131) Students practice basic respiratory care procedures learned in RTT 110, using state-of-the-art equipment in the learning laboratory and in simulated patient situations. Class meets three hours a week for 15 weeks.

RTT 116L—Respiratory Therapy Lab II (1 cr)

(Corequisites: RTT 111, RTT 122C) Students practice additional respiratory care procedures learned in RTT 111. Students use equipment in simulated patient situations. Class meets three hours a week for 15 weeks.

RTT 117L-Respiratory Therapy Lab III (1 cr)

(Corequisites: RTT 112, RTT 123C, RTT 132) Students practice procedures learned in RTT 112. Advanced respiratory therapy procedures are simulated in lab sessions including extensive work with mechanical ventilation devices. Class meets three hours a week for 15 weeks.

*RTT 121C—Clinical Experiences I (4 cr)

(Corequisites: RTT 110, RTT 115L, RTT 131) Supervised clinical experiences in the hospital setting allow students to apply knowledge and skills learned in classroom and laboratory sessions. Students apply basic respiratory therapy skills in direct patient contact situations supervised by clinical faculty members. Class meets 16 hours a week for 15 weeks.

*RTT 122C—Clinical Experiences II (4 cr)

(Corequisites: RTT 111, RTT 116L) Supervised clinical experiences continue in area hospitals and health care facilities. Students also visit patients in the home setting, supervised by qualified personnel working with medical equipment supply companies in Albuquerque. Class meets 16 hours a week for 15 weeks.

*RTT 123C—Clinical Experiences III (5 cr)

(Corequisites: RTT 112, RTT 117L, RTT 132) Supervised clinical experiences in the hospital setting continue. More emphasis is placed on caring for patients in critical care settings with special concentration on maintaining life support systems. Class meets 16 hours a week for 15 weeks.

RTT 131—Physics of Respiratory Therapy (3 cr)

(Prerequisite: admission to program; corequisites RTT 110, RTT 115L, RTT 121C) The basic concepts of physics as they relate to physiology of the lungs, gas laws, gas flow and mechanics of the breathing process are covered and applied to the operation of respiratory therapy equipment. Basic concepts of math calculations are also covered relating to physics and Respiratory physiology computations. Class meets three hours a week for 15 weeks.

RTT 132—Cardiopulmonary Physiology (4 ct)

(Prerequisites: BIO and A & P requirements; corequisites: RTT 112, RTT 117L, RTT 123C) More advanced knowledge of the physiologic processes of the circulatory, pulmonary, renal and nervous systems and their relationships to each other is emphasized. Basic principles of chemistry are covered as they relate to blood chemistry and blood gas analysis. Class meets four hours a week for 15 weeks.

*During clinical experiences, students meet for formal lectures on the pathophysiology of the cardiopulmonary system. The lectures are given by the Respiratory Therapy program's medical director, associate director, physicians from the UNM School of Medicine, or other physicians in the community. Clinical pathologic disorders which require respiratory therapy diagnosis, treatment and care are covered.

Respiratory Therapist

*RT 210—Advanced Respiratory Therapy I (3 cr)

(Prerequisite: admission to the program, math and basic science requirements; Corequisites: RT 215L, RT 221C, math and basic science requirements) The course presents an integrated study of introductory topics for the advanced practitioner of respiratory care. Correlation of cardiopulmonary anatomy, physiology and pathophysiology with evaluation of cardiac and pulmonary function is presented.

*RT 211—Advanced Respiratory Therapy II (3|cr)

(Prerequisites: RT 210, RT 215L, RT 221C, math and basic science requirements; Corequisites: RT 216L, RT 211C, math and basic science requirements) This course presents concepts of critical care medicine for the practitioner of respiratory care. Topics cover adult, pediatric and neonatal respiratory intensive care. Pathophysiology of diseases which require critical care medicine for adults, children and infants is presented.

*RT 212—Advanced Respiratory Therapy III (4 cr)

(Prerequisites: RT 210, RT 215L, RT 221C, RT 211, RT 216L, RT 222C, math and basic science requirements; Corequisites: RT 223C, math and basic science requirements) This course presents an integrated study in the concepts of rehabilitative practice and home health care for patients with chronic cardiopulmonary diseases. Students are also prepared for roles and responsibilities in leadership positions for the field of respiratory care. Opportunities are offered for individualized coursework and special projects related to practical application in areas of education, supervision and management, and clinical research.

RT 215L—Advanced Respiratory Therapy Lab I(1 cr)

(Corequisites: RT 210, RT 221C, math and basic science requirements) Students practice respiratory therapy procedures, pulmonary function esting and hemodynamic monitoring, using state-of-the-art equipment in the learning laboratory under patient simulated situations, and using computer simulation programs.

RT 216L—Advanced Respiratory Therapy Lab II (1 cr)

(Corequisites: RT 211, RT 222C, math and basic science requirements) Students practice Respiratory therapy procedures related to critical care medicine for adults, children and infants. Activities include physiology lab experiences, simulated patient situations and the use of computer simulation programs.

RT 221C-Advanced Clinical Experiences I (3 cr)

(Corequisites: RT 210, Rt 215L, math and basic science requirements) Students are supervised in the clinical applications of respiratory care with emphasis on problem-solving and decision-making skills. Experiences include cardiopulmonary function and evaluation activities. Related activities will correlate the cardiopulmonary system in health and disease. Activities will take place in affiliated hospitals and other local health care agencies.

RT 222C—Advanced Clinical Experiences II (3 cr)

(Corequisites: RT 211, RT 216L, math and basic science requirements) Students are supervised in the clinical application of respiratory care in the adult, pediatric and neonatal critical care environments. Emphasis is placed on development of problemsolving and decision-making skills, patient evaluation skills, and the evaluation of therapeutic care plans. Additional activities are provided for giving students an opportunity to participate in research physiology experiences. Activities will take place in affiliated hospitals and other local health care agencies.

RT 223C—Advanced Clinical Experiences III (2 cr)

(Corequisites: RT 212, math and basic science requirements) Students are supervised in the clinical application of respiratory care for home health care and pulmonary rehabilitation. Additional experiences will be provided in the area of cardiopulmonary physiology testing. Investigation of special clinical areas chosen by each student will be available. These experiences will focus on areas of clinical practice which each student identifies as a special topic of interest in respiratory care. Activities will take place in affiliated hospitals and other local health care agencies.

"Throughout the year of theory coursework, students meet for formal lectures on the pathophysiology of the cardiopulmonary system. These lectures are given by the program's medical director, associate medical director or other physicians from the UNM School of Medicine or other physicians in the community. Clinical pathology which requires respiratory therapy diagnosis, treatment and care is covered.

Technologies

Architectural/Engineering Drafting Technology

ARDR 101—Fundamentals of Computer Assisted Drafting (3 cr)

(Prerequisite: The student should have some experience using a microcomputer and MS-DOS) This course introduces the student to the fundamentals of computer assisted drafting using AutoCAD. The course meets for two hours of lecture and three hours of laboratory per week.

Supply Fee: \$15

ARDR 102—Architectural Mathematics (5 cm)

(Prerequisite: MATH 100 or equivalent) Basic concepts of algebra and geometry are covered with an emphasis on architectural and engineering applications and calculator usage. The course meets for five hours of lecture per week.

ARDR 103—Residential Materials and Methods (5 cr)

Properties of building materials are related to building layout and construction methods. Blueprint reading, building and zoning codes, material estimates, energy conservation and alternative building technologies are covered. The student learns the City of Albuquerque's requirements for obtaining a building permit. The course has five hours of lecture per week.

ARDR 105A-Residential Drafting (3 cr)

(Prerequisite or corequisites: ARDR 103; ARDR 06L) Students are introduced to general drafting theory and techniques needed to produce construction drawings and related documents for residential structures. The course has two hours of lecture and three hours of laboratory per week.

Supply Fee: \$15

Note: Students must provide their own instruments.

ARDR 105B—Residential Drafting (2 cr)

(Prerequisite: ARDR 105A) Graphic skills related to residential construction drawings are emphasized. The use of manufacturers' technical data and standard reference works is covered. The course has five hours of laboratory per week.

Supply Fee: \$15

Note: Students must provide their own instruments.

ARDR 105L—Residential Drafting (5 cr)

(Corerequisites: ARDR 103, ARDR 106L) Students are introduced to general drafting theory and techniques needed to produce working drawings and related contract documents for residential structures. The development of graphic skills is emphasized. The student learns to use manufacturers' technical data and standard reference works in developing drawings. The course has three hours of lecture and seven hours of laboratory per week.

Supply Fee: \$15

ARDR 106L—Introduction to CAD (3 cr)

(Corequisite: ARDR 105L) The microcomputer and the MS-DOS operating system are introduced. Students explore the basic concepts of computer assisted drafting. The course has two hours of lecture and three hours of laboratory per week.

Supply Fee: \$15

ARDR 112—Architectural Trigonometry (5 cr)

(Prerequisite: ARDR 102) A calculator approach to trigonometry is used that includes architectural applications such as site planning. The course has five hours of lecture per week.

ARDR 116-Non-Residential Materials and Methods (5 cr)

(Prerequisite: ARDR 103, ARDR 105L) The sequence of critical decisions that take a non-residential project from conceptual design to construction documents is followed. These decisions include site development, code compliance, setting vertical dimensions and the selection of wall, floor and ceiling systems. Typical non-residential construction materials and detailing are explained throughout and illustrated with example blueprints and specifications. The course has five hours of lecture per week.

ARDR 117L-Architectural Drafting (5 cr)

(Prerequisite: ARDR 105L; corequisites: ARDR 112, ARDR 116, ARDR 118L) The students' drafting skills are expanded to include the style and media commonly used in architects' offices. Students produce selected working drawings for light commercial structures using appropriate professional reference materials to solve typical problems. The course has three hours of lecture and seven hours of laboratory per week.

ARDR 118L—Architectural CAD (3 cr)

(Prerequisite: ARDR 106L; corequisite: ARDR 117L) The student builds on CAD skills developed in Introduction to CAD. Intermediate drawing and editing commands are learned and electronic spreadsheets are introduced. The course has two hours of lecture and three hours of laboratory per week.

Supply Fee: \$15

ARDR 171-Architectural Design (3 cr)

(It is suggested that ARDR 105L be taken prior to this course.) The student executes two and three dimensional abstract exercises that teach basic design concepts. These concepts are applied to various built environment circumstances. Sketch drawings and study models are made to develop and explain design concepts in specific applications. The course has two hours of lecture and three hours of laboratory per week.

ARDR 172—Architectural Rendering (2 cr)

(It is suggested that ARDR 173 be taken prior to this course.) Techniques of rendering and illustration are explored. Students work with planar, axonometric and perspective drawings in a variety of media such as graphite, ink and some color methods. The course has one hour of lecture and three hours of laboratory per week.

ARDR 173—Technical Sketching (2 cr)

Students make various drawings to develop visual perception, awareness of their environment, and freehand drawing skills. Students explore basic forms, perspective, still life and figure drawing as applications of drafting problems. Large scale drawings are executed in a variety of black and white media. The course has one hour of lecture and three hours of laboratory per week.

ARDR 174—Housing (2 cr)

Design considerations that affect housing forms are studied including U.S. housing styles, site considerations and various arrangements of activity spaces. Drawings and models are made to show the effects of different spatial organizations. The course has two hours of lecture per week.

ARDR 175—General Contractor Preparation (3 cr),

The class is designed for people interested in becoming general contractors in New Mexico. Licensing requirements, rules and regulations, business and law, the Uniform Building Code, construction methods and contacts management are covered. The course has three hours of lecture and two hours of laboratory per week.

ARDR 176—Orientation to the Construction Industry (2 cr)

The student will develop an overview of the industry and a variety of jobs available within it. Topics will include the construction environment, and related disciplines of architects, engineers, landscape architects, interior designers, contractors, suppliers, insurers, and other consultants. The student will investigate such things as the design process, building systems, and component parts. The course has two hours of lecture per week.

ARDR 202-Structured Mathematics (5 cr)

(Prerequisites: ARDR 112, ARDR 117L) The basic principles of physics as they apply to construction and structural analysis are covered. The student is introduced to structural design in wood, steel, and concrete. Students learn to set up and solve elementary beam design problems. The course has five hours of lecture per week.

ARDR 205L—Structural Drafting (5 cr)

(Prerequisite: ARDR 117L; corequisites: ARDR 20P, ARDR 207L) Students are introduced to the drafting styles and conventions used in consulting engineers' offices. They develop representative drawings of precast and site cast concrete, structural steel and heavy timber structures. Blueprint reading and the development of appropriate graphic skills using a variety of media are emphasized. The course has three hours of lecture and seven hours of laboratory per week.

ARDR 207L—Structural CAD (3 cr)

(Prerequisite: ARDR 118L; corequisite: ARDR 2051) Intermediate CAD drawing and editing skills are expanded and structural drafting applications are developed. Three dimensional views are introduced. The course has two hours of lecture and three hours of laboratory per week.

Supply Fee: \$15

ARDR 208—Energy Systems (5 cr)

(Prerequisites: All first term courses) Students explore current energy conservation techniques, including passive solar design. Concepts of comfort zones, building orientation, heat transfer, thermal mass and overall energy efficiency calculations are introduced. The student applies these techniques to residential designs. The course has five hours of lecture per week.

ARDR 212L—M/E Systems Drafting (5 cr)

(Prerequisite: ARDR 205L; corequisites: ARDR 215, ARDR 218L) The student learns conventional drafting methods of mechanical and electrical systems. This includes overlaying electrical, heating, ventilation, and plumbing systems on architectural views. Engineering drawings are developed and engineering graphic skills are expanded with some emphasis on inking techniques. The course has three hours of lecture and seven hours of laboratory per week.

ARDR 215—M/E Systems Analysis (7 cr)

(Prerequisites: ARDR 205L, ARDR 208) General theory and layout information and code requirements for non-residential systems are studied. Topics include lighting, plumbing, and air conditioning. Microprocessor software applications may be used to facilitate course work. The course meets for five hours of lecture and five hours of laboratory per week.

ARDR 216L—Structural Detailing (3 cr)

(Corequisite: ARDR 212L) The students are introduced to typical fabricating shop practices for structural steel, reinforcing steel and precast concrete. Both erection and production drawings are prepared using CAD; the notational conventions and graphic standards of shop detailing are emphasized. Blueprint reading and extensive use of industry manuals are required. The course has two hours of lecture and three hours of laboratory per week.

ARDR 217—Project Management (3 cr)

(Corequisite: ARDR 215) The student is introduced to the skills required to manage a building project. Topics include contracts, fees, estimating, bidding, specifications writing, scheduling and drawing coordination. Emphasis is given to the administrative milestones that define the construction phase of a building. The course meets two hours of lecture and three hours of laboratory per week.

ARDR 218L—M/E Systems CAD (3 cr)

(Prerequisite: ARDR 207L; corequisites: ARDR 212L, ARDR 215) The student develops engineering drawings of mechanical and/or electrical systems on the computer. Isometric drawings and installation details are included. The course has two hour of lecture and three hours of laboratory per week.

Supply Fee: \$15

ARDR 271—Construction Management (4 cr)

(Prerequisite: ARDR 105L: corequisite: ARDR 116) This course covers basic management systems required for effective project planning and scheduling; cost estimating, budgeting and cost control accounting; quality assurance; materials management; and interrelationships among them. Students analyze how well and widely these systems are used in industrial, utility commercial segments of construction. Microcomputer software is used where applicable. The course has four hours of lecture and one hour of laboratory per week.

ARDR 272—Computer Estimating (3 cr)

(Prerequisite: ARDR 105L; corequisite: ARDR 116) Determination of probable costs of construction projects is emphasized. Topics include making quantity take-offs, determining local unit costs and job scheduling. Microcomputer software is used extensively. The course has two hours of lecture and three hours of laboratory per week.

ARDR 295—CAD for Professional Drafters (5 cr)

(Prerequisite: Completion of a post-secondary architectural drafting program or permission of the academic advisor) This class assumes professional drafter's skills and knowledge. The student will cover CAD concepts and skills from a beginner's level to an advanced level. The course has three hours of lecture and six hours of laboratory per week.

Supply Fee: \$15

ARDR 296—Special Problems (3 cr)

(Prerequisites: Enrolled only in 200 level technical courses and/or permission of the program academic advisor) The student and instructor define a specific problem in the area of the student's interest and directly related to the program. The student then develops and executes a solution using analytical and drafting techniques appropriate to the problem. An oral presentation may be required.

ARDR 297—Supervised Work Experience (3 ¢r)

Supervised work experience is for students who have acquired most of the skills and work attitudes needed to succeed in an entry-level job. Students may apply for this option during the final term.

Business Computer Programming Technology

CP 101A—ANSI COBOL (4 cr)

(Prerequisite or corequisite: CP 102 or permission of academic advisor) Elementary structured programming projects directly related to business and accounting applications are designed, coded, debugged and executed. This course has three hours of lecture and three hours of laboratory per week.

Supply Fee: \$10

CP 101B—ANSI COBOL (3 cr)

(Prerequisite: CP 101A) This course is a continuation of CP 101A. More advanced, structured programming projects are designed, coded, debugged and executed. This course has one hour of lecture and five hours of laporatory per week.

CP 101L—ANSI COBOL (7 cr)

(Corequisite: CP 102) Students are required to write structured programming projects directly related to business and accounting applications. The projects are designed, coded, debugged, and executed using a mainframe computer system. This course has five hours of lecture and five hours of laboratory per week.

Supply Fee: \$10

CP 102—Introduction to Computers (4 cr)

Students learn computer vocabulary, logic and control, and structured programming techniques including hierarchy charts and topdown planning. This course has four hours of lecture and one hour of laboratory per week.

CP 103—Mathematics for Computer Programmers (4 cr)

(Prerequisite: MATH 100 or equivalent) Algebra fundamentals are covered in this course along with selected computer programming, business and management math applications. This course meets for five hours of lecture per week

CP 104-Data Processing Accounting I (4 cr)

(Prerequisite: MATH 100 or equivalent) Students learn accounting theory, practice and terms, and their relation to computer data processing. This course meets for four hours of lecture per week and one hour of laboratory per week.

CP 111A—Advanced ANSI COBOL (4 cr)

(Prerequisite: CP 101L) This course continues the development of structured programming skills developed in CP 101A and CP 101B with emphasis on indexed file processing. This course has three hours of lecture and three hours of laboratory per week.

Supply Fee: \$10

CP 111B—Advanced ANSI COBOL (3 cr)

(Prerequisite: CP 111A) This course continues the development of structured programming skills developed in CP 111A with emphasis on file update and subprogram concepts. This course has one hour of lecture and five hours of laboratory per week.

CP 111L—Advanced ANSI COBOL (7 cr)

(Prerequisite: CP 101L) Students continue the development of programming skills using the ANSI COBOL language. Emphasis is on sequential and indexed file processing, file maintenance, multi-dimensional table processing, sorts, and interactive programming. This course has five hours of lecture and five hours of laboratory per week. Supply Fee: \$10

CP 112A—VSE JCL/VSAM/UTILITIES (4 cr)

(Prerequisites: CP 10/L, CP 102) Emphasis is placed on the IBM system software including VSESP, JECL, VSE/ICCF, library functions, IBM utilities, and spooler, sort/merge, DASD access methods including VSAM, CICS configuration, tables used with COBOL and command level coding. This course has three hours of lecture and three hours of laboratory per week.

CP 112B—VSE JCL/VSAM/UTILITIES (3 cr)

(Prerequisite: CP 112A) This course covers advanced VSE functions with emphasis on advanced data management and label processing concepts, system operation and facilities, and system management techniques. System utilities such as librarian, clear disk and fastcopy are covered. Data protection facilities and VSE interface between POWER, VTAM and CICS are discussed. This course has one hour of lecture and five hours of laboratory per week.

CP 112L—VSE JCL/VSAM/Utilities (7 cr)

(Prerequisites: CP 101L, CP 102) Students are required to code and execute job streams using the IBM DOS/VSE Job Control language, Editor, Power, Job Entry System, Procedures, Utilities and VSAM File Structures using the mainframe computer. This course has five hours of lecture and five hours of laboratory per week.

CP 114—Data Processing Accounting II (3 cr)

(Prerequisite: CP 104) Students learn the vocabulary and concepts used in business accounting. Emphasis is placed on computerized accounting on microcomputers. This course has two hours of lecture and three hours of laboratory per week.

CP 174L—BASIC Language Programming (3 cr)

(For non-data processing students) This introduction to BASIC includes use of input and output statements, arithmetic operations, comparison and branching commands, use of subroutines and the library functions. Algorithms associated with technological computations are developed. This course has two hours of lecture and three hours of laboratory per week.

Supply Fee: \$10

CP 175L—C Language Programming (3 cr)

(Prerequisite: A programming language) (For non-data processing students) This course is an introduction to C programming language using microcomputers. This course has two hours of lecture and three hours of laboratory per week.

Supply Fee: \$10

CP 176L—Introduction to Microcomputers (3 cr)

Instruction is provided in computer vocabulary and students are introduced to MS-DOS. Word Perfect, Lotus 1-2-3 and DBase III. This course has two hours of lecture and three hours of laboratory per week.

Supply Fee: \$10

CP 201L—Interactive Programming Techniques (3 cr)

(Prerequisites: CP 111L, CP 112L) Students will develop interactive business applications on the IBM mainframe in the VSE environment. Command level CICS and VSAM file structures are used in teaching the special requirements of interactive processing. This course has two hours of lecture and three hours of laboratory per week.

CP 202A—Assembly Language Programming (4 cr)

(Prerequisites: CP 111L, CP 112L) Students learn fundamental programming techniques necessary for writing and refining efficient programs in IBM mainframe assembly language. This course has three hours of lecture and three hours of laboratory per week.

CP 202B—Assembly Language Programming (3 cr) 🗆

(Prerequisite: CP 202A) This course is a continuation of CP 202A. Students learn more complex techniques of writing and refining programs in IBM mainframe assembly language. This course has one hour of lecture and live hours of laboratory per week.

CP 202L—Assembler Language Programming (7 cr) [(Prerequisites: CP 111L, CP 112L) Students learn programming techniques necessary to write Assembler language programs. This course has five hours of lecture and five hours of laboratory per week.

CP 203—Business Systems Analysis and Design (4 cr)

(Prerequisite: CP 11/L) This course teaches structured techniques of systems analysis and design. The systems life cycle is presented and several methods of analyzing existing systems are covered. Microcomputers are used to write documentation and run project management software. This course meets for four hours of lecture per week and one hour of laboratory per week,

CP 204L—Report Program Generator II (3 cr)

(Prerequisite: CP 111L) Students are introduced to the RPG II programming language used in business organizations. This course has two hours of lecture and three hours of laboratory per week.

CP 211L—Programming Projects (3 cr)

(Prerequisites: CP 201L, CP 202L) This course places special emphasis on individualized or group data processing projects. This course has two hours of lecture and three hours of laboratory per week,

CP 212L—Computer System Software (4 cr)

(Prerequisite: CP 202L) This course covers topics designed to increase understanding of the use of microcomputers and mainframe computers. It includes the study of operating systems, macro assembler programming, and microcomputer software packages. This course has four hours of lecture and one hour of laboratory per week.

CP 213—Database Programming and Concepts (4 cr)

(Prerequisite: CP 111L or permission of academic advisor) General concepts and organization of database systems are included along with practical application of Database Management Systems through the use of networks, telecommunication lines, hardware and a database programming language. Mainframe and/or microcomputers are used. This course has four hours of lecture and one hour of laboratory per week.

CP 270L—Pascal Programming (3 cr)

(Prerequisite: CP 1/1L or permission from academic advisor) This course, using microcomputers and/or a mainframe computer, covers the Pascal language stressing data types, functions, procedures, and parameter passing. This course has two hours of lecture and three hour of laboratory per week.

Supply Fee: \$10

CP 271L—BASIC Language Programming (3 cr)

(Prerequisite: CP 111L or permission of academic advisor) Students learn the BASIC language to further their knowledge of interactive programming, routines using menu selection, and search and retrieval routines. Microcomputers are used. This course has two hours of lecture and three hours of laboratory per week.

Supply Fee: \$10

CP 272L—C Language Programming (3 cr)

(Prerequisite: CP 111L or permission of academic advisor) This course is an introduction to C programming language using microcomputers. Students in this course are assumed to know principles of structured computer program planning and programming. This course has two hours of lecture and three hours of laboratory per week.

CP 273L—FORTRAN Programming (3 cr)

(Prerequisite: CP 111L or permission from academic advisor) This is an introductory course in FORTRAN computer programming. The course has two hours lecture and three hours of laboratory per week.

Supply Fee: \$10

CP 274L—Introduction to the UNIX Operating System (2 cr)

(Prerequisite: Completion of 100 level courses) An introductory course using the UNIX operating system. The course will cover basic commands, mail, inter-terminal communication, the file system, redirected I/O, pipes, and shell programming. This course meets for one hour of lecture and three hours of laboratory per week.

CP 276—ADA Language Programming (3 cr)

(Prerequisite: CP 211L or permission of the academic advisor or work experience as a computer programmer) This is an introductory course in ADA language programming. This course has two hours of lecture and three hours of laboratory per week.

Supply Fee: \$10

CP 277—Operating Systems Design and Implementation with UNIX (3 cr) (Prerequisite: CP 272L or permission of academic advisor) This course covers the theory of computer operating systems and introduces the student to the concepts of the UNIX operating system. This course has two hours of lecture and three hours of laboratory per week.

CP 278—Advanced C Language Programming (3 cr)

(Prerequisite: CP 272L) A continuation of CP 272L, this class assumes considerable programming experience. Students in this class will write programs working with data structures such as stacks, linked lists, binary search trees, and self balancing trees. This course has two hours of lecture and three hours of laboratory per week.

CP 296—Special Problems (3 cr)

(Prerequisites: Enrolled only in 200 level technical courses and/or permission of the academic advisor) The student and instructor define a specific problem in the area of the student's interest and directly related to the program. The student then develops and executes a solution using analytical techniques appropriate to the problem. An oral presentation may be required.

CP 298—Cooperative Training (3 cr)

(Prerequisite: Permission from the academic advisor) In cooperation with local industry, the student works for one term on a cooperative basis in appropriate defined training program.

Civil and Surveying Technology

C&S 101L—Civil and Surveying Lab/Theory I [7 cr)

(Pre-or corequisite: C&S 102) This course introduces general drafting theory and techniques needed to produce a variety of engineering drawings and survey maps. Emphasis is on development of graphic skills and freehand lettering. The student also learns to trace from rough sketches and manuscripts and develop maps from field notes. This course has three hours of lecture and twelve hours of laboratory per week.

C&S 102—Civil and Surveying Mathematics I (7 cr)

(Prerequisite: MATH 100 or equivalent) This course applies algebra, geometry, and numerical trigonometry concepts to surveying. A computer-related course could be substituted for part of the math course with permission of the program advisor. This course has five hours of lecture and five hours of laboratory per week.

C&S 111—Cartographic Techniques Lab/Theory (7 cr)

(Prerequisite: C&S 101L) This course includes an introduction to plat and topographic mapping followed by practice in inking lines and lettering on vellum and drafting film. Tracings are made of topographic, geological, and plan/profile maps. Format development precedes techniques and practice in negative scribing and preparation and reproduction of mechanical separations. This course has three hours of lecture and twelve hours of laboratory per week.

C&S 112—Civil and Surveying Mathematics II (4 cr)

(Prerequisite: C&S 102) Trigonometry and analytic geometry are related to surveying problems. The course includes traversing, adjustments, area calculations, intersections and partitioning. This course has four hours of lecture and one hour of laboratory per week.

C&S 113—Plane Surveying I (3 cr)

(Corequisite: C&S 112) The students learns basic techniques and equipment used in surveying including tape, level, and theodolite. Notekeeping methods are emphasized. Field work and related computation cover leveling, distance, and angle measurement and traversing related to mapping. This course has two hours of lecture and four hours of laboratory per week.

C&S 203L—Plane Surveying II (5 cr)

(Prerequisites: C&S 112, C&S 113; corequisites: C&S 204L, C&S 207L) Instruction includes theory of errors, instrument calibration and adjustment, and practice in the use of one-second theodolites, EDMs and total station; practice in precise leveling, stadia surveys, control surveys, computerized surveying systems, and computer data reduction is included. Field observations and office calculations for determining azimuth by solar observation are taught and included in a retracement of a U.S. Public Land survey. This course has three hours of lecture and six hours of laboratory per week.

C&S 204L—Photogrammetric Techniques Lab/Theory (2 cr)

This course includes theory in aerial photography, geometry of single vertical photographs and overlapping aerial photos, flight planning, and establishment of ground control. Students learn the use of modern stereoscopic plotting instruments and map compilation leading to the preparation of maps from aerial photos. This course has one hour of lecture and three hours of laboratory per week.

C&S 206L—Boundary Law and Public Land Surveys (5 cr)

(Prerequisite: C&S 112) A study of modern surveying methods is related to resurveys of U.S. public lands, corner restoration and researching GLO plats and field notes. Boundary survey law and techniques are introduced. Extensive practice in the use of the National Geodetic Survey (NGS) Horizontal and Vertical Networks and the New Mexico State Coordinate System is provided along with training in law library use and courthouse record research. This course has five hours of lecture per week.

C&S 207L—Computer-Assisted Civil Drafting (2 cr)

(Corequisites: C&S 203L) The student learns how to operate the mouse, plotter and graphics CRT using the PACSOFT system. The input of coordinates, boundary or subdivision points from the keyboard or from COGO output is followed by the creation of label, text and annotation files and drafting sequences for plotted finished drawings. This course had one hour of lecture and three hours of laboratory per week.

C&S 211L—Civil Design Lab/Theory (7 cr)

(Corequisites: C&S 213L, C&S 216, C&S 218) Students practice development and calculation techniques to analyze route surveys and produce subdivision and utility plats and profile drawings. An original subdivision, including drainage plans, is designed to subdivision ordinance specifications. This course has three hours of lecture and twelve hours of laboratory per week.

C&S 213L—Plane Surveying III (4 cr)

(Prerequisites: C&S 203L, C&S 206) Included are grid and radial topographic surveys using a total station and an electronic data collector; digital terrain mapping producing topo maps; error analysis statistics; GPS theory, GPS field surveys, data reduction and adjustments; horizontal and vertical curve calcuations, design and layout; fluid mechanics; and design of a sanitary sewer system. This course has three hours of lecture and three hours of laboratory per week.

C&S 216—COGO (6 cr)

(Corequisites: C&S 112, C&S 207L) This introduction to PACSOFT COGO includes coordinate file generation, traversing, inversing, adjustments, intersection solutions and partitioning. Horizontal curve calculations, cul-de-sac design and subdivision design are included as are the computation of areas and state plane coordinates. This course has four hours of lecture and six hours of laboratory per week.

C&S 218—Technical and Legal Communications (4 cr)

(Pre- and corequisites: C&S 206, C&S 211L) Reading, writing and speaking skills are developed through practice in writing and interpreting land descriptions and interpretation and application of codes and specifications related to subdivision design ordinances. Job seeking skills are developed along with the writing of resumés. The New Mexico Surveying Standards are studied and professional ethics are discussed. This course has four hours of lecture and one hour of laboratory per week.

C&S 273—Introduction to Computer Assisted Drafting (2 cr)

Microcomputer CAD hardware and software are introduced including format and execution of basic command verbs; creation, editing, and saving of drawing files; and generation of hardcopy output. This course has one hour of lecture and three hours of laboratory per week.

C&S 296—Special Problems (3 cr)

(Corequisites: All Term IV courses and permission from the academic advisor) The student is given a problem to investigate and solve. The student then designs the solution using a combination of techniques.

Design Drafting Engineering Technology

DDET 102L-Manufacturing Methods (3 cr)

(Corequisite: ENG 101) The student is introduced to manufacturing methods unique to modern industrial technology including machining, fabrication, hot and cold metal working processes, assembly operations and quality assurance methodology. Properties of materials as affected by various manufacturing processes will be introduced. This course has three hours lecture and one hour laboratory per week.

DDET 104L—Introduction to Technical Drafting (4 cr)

This course is an introduction to fundamental drafting techniques including proper care and use of drafting equipment, lettering, sketching, linework, scaling, and geometric construction. This course has three hours lecture and three hours laboratory per week.

DDET 105L—Basic Machine Tools (2 cr)

This course familiarizes students with the functional world of manufacturing and industry. Subject matter covers types, applications and use of hand and power tools; types, applications and specifications of common hardware; measuring equipment and inspection techniques; clearances, tolerances, fit and allowances; machine tool operation and applications including drilling, grinding, milling, turning, tapping and boring, Safety glasses must be worn in the laboratory. This course has one hour of lecture and three hours of laboratory per week.

DDET 106L—Basic CADD (3 cr)

(Corequisite: DDET 104L) Microcomputer CADD hardware and software are introduced including format and execution of basic command verbs, creation, editing and saving of drawing files, and generation of hardcopy output. This course has two hours lecture and three hours of laboratory per week.

Supply Fee: \$15

DDET 111L-Mechanical Detailing (3 cr)

(Prerequisite: DDET 104L) This course introduces the student to the development of detail drawings including layout, view selection, notation, dimensioning, Y-14.5 tolerancing, and revisions of mechanical parts. This course has two hours lecture and four hours laboratory per week.

DDET 114L—Structured Computer Programming (3 cr)

A course in beginning computer programming using engineering applications will be taught. This course has two hours of lecture and three hours of laboratory per week. Supply Fee: \$15

DDET 115L—Intermediate CADD (3 cr)

(Prerequisite: DDET 106L) The student continues use of CADD software in an applied situation. Advanced drawings include insertions, layering, auto-dimensioning and constructing library files. This course has two hours lecture and four hours laboratory per week.

Supply Fee: \$15

DDET 116L—Basic Electronic Drafting (3 cr)

(Prerequisite: DDET 104L) This course presents electronic drafting fundamentals including symbolic representation of electronic components and devices, block and connection diagramming, cable drawings and circuit schematics. This course has two hours lecture and three hours laboratory per week.

DDET 201L—Descriptive Geometry (3 cr)

(Prerequisite: MATH 121 or MATH 150) A graphical analysis of the relationship between points, lines and planes in space is presented. Advanced applications of trigonometry to dynamic mechanisms and point locations will also be covered. This course has two hours lecture and three hours laboratory per week.

DDET 202L—Applied Electronic Drafting (3 cr)

(Prerequisite: DDET 116L) This course introduces electronic drafting techniques unique to printed circuit board design including development of both discrete and integrated component layouts, artwork, fabrication and assembly drawings and chassis design. This course has two hours lecture and three hours laboratory per week.

DDET 205L— Machine Design Layout (4 cr)

(Prerequisites: DDET 105L, DDET 111L; corequisite: DDET 201L or MATH 123) Students apply machine design principles including fixed and removable fastening techniques, dimensioning and tolerancing for assembly; relational functions of bearings, gears, cams, belts, pulleys and shafts; and parts list development. Force vectors and stress and strain will be introduced. Layout formats are made for each design. Part searches and material specifications are made for each design. This course has three hours lecture and three hours laboratory per week.

DDET 206L—Jig and Fixture Design (4 cr)

(Prerequisite: DDET 205L) This design course centers around the science of three dimensional location, clamping and holding of work for machining and assembly. Cams, levers, screwlocks, air and hydraulic devices will be covered. Time evaluation and accuracy will be included in design work. Time and motion considerations and datum planes will be taught. This course has three hours lecture and three hours laboratory per week.

DDET 207L-Production Tooling Design (4 cr)

(Prerequisite: DDET 206L) Students will design tools for metal forming operations via power presses and brakes. This course will concentrate on the design of male and female hard dies, steel rule dies and urethane tooling for metal blanking, and forming and assembly operations. This course has three hours lecture and three hours laboratory per week.

DDET 208L-Advanced CADD (3 cr)

(Prerequisite: DDET 115L; corequisite: DDET 202L) Students produce complete electronic drawings by merging principles of CADD with standard drafting rules and conventions. Assignments are in the field of electronic drafting include multilayering. This course has two hours lecture and three hours of laboratory per week.

DDET 211L—Electromechanical Drafting (3 cr)

(Prerequisite: DDET 205L) This course involves the design and drafting of electromechanical systems using combined concepts learned and practiced in previous machine and/or electronics drafting courses. This course has one hour lecture and five hours laboratory per week.

DDET 212—Applied Engineering Mechanics (3 cr)

(Prerequisite: MATH 123) This course analyzes the forces on mechanical elements at rest and in motion. The study of statics and complex forces on materials is also included. This course has three hours of lecture per week.

DDET 214L—Materials Science (4 cr)

(Prerequisite: DDET 201L or MATH 123 and ENG 1/9) Students analyze and evaluate the engineering characteristics of materials used in modern manufacturing technology in typical applications. Mechanical, physical and chemical properties are included. A comprehensive research paper is required in this course. This course has three hours of lecture and three hours of laboratory per week.

DDET 215L—Technical Computer Applications (3 cr)

(Prerequisite: DDET 115L) Students use the computer to solve engineering and related problems. This course has two hours lecture and three hours laboratory per week.

DDET 216L—Dimensional Metrology (4 cr)

(Prerequisite: DDET 111L or MATT 112) This laboratory and lecture course introduces students to the science of precision measure. Using a well equipped laboratory, students will make direct and indirect measurements to 50 millionths of an inch. Measurements will concentrate on linear and angular units. Students will be introduced to equipment used in electrical, decibel and PPM measurements. Laboratory work includes SPC and CMM practicums. This course has three hours of lecture and three hours of laboratory per week.

DDET 291-Special Projects in CADD (3 cr)

This course involves project work in electromechanical drafting using advanced CADD concepts.

DDET 296—Special Problems (3 cr)

(Prerequisites: Enrolled only in 200 level technical courses and/or permission of the program academic advisor) The student and instructor define a specific problem in the area of the student's interest and directly related to the program. The student then develops and executes a solution using analytical and drafting techniques appropriate to the problem. An oral presentation may be required.

DDET 297—Cooperative Training (3 cr)

(Prerequisite: Permission from the academic advisor) In cooperation with local industry, the student works for one term on a cooperative basis in appropriate defined training program.

Electronics Engineering Technology

EET 107L-Graphics and Analytical Methods (3 cr)

(Corequisite: MATH 150 or MATH 121) Mechanical and electronic drafting practices/ methods including schematic preparation, printed circuit layout, chassis definition and wiring will be studied. Considerable laboratory time will be devoted to the development of skills and techniques required to prepare drawings. In addition, students will gain experience in word processing, spreadsheet preparation, graphics, data base preparation and CAD. This course has two hours of lecture and three hours of laboratory per week.

EET 109L—Circuit Analysis I (5 cr)

(Corequisites: ENG 101, EET 107L, MATH 150 or MATH 121) Passive DC circuits will be analyzed using Ohm's Law, Kirchhoff's Laws, source conversions, network theorems and branch/ mesh/nodal analysis. Transient analysis of R-C and R-L circuits will be presented along with concepts of energy, power and efficiency. Computers will be used for spreadsheet preparation, graphics and word processing. This course has three hours of lecture and five hours of laboratory per week.

EET 113L—Structured Computer Programming (3 cr)

A course in beginning computer programming using engineering applications will be taught. This course meets two hours of lecture and three hours of laboratory per week. Supply Fee: \$15

EET 117L—Digital Electronics I (3 cr)

(Prerequisite: EET 109L) Combinational logic using integrated circuits will be analyzed and designed using Boolean algebra, Karnaugh maps and logic diagrams. Number systems, binary codes and code conversions will be studied along with flip flops, multivibrators and circuit applications. Laboratory work will emphasize wiring and troubleshooting skill development while confirming circuit design objectives. This course has three hours of lecture and one hour of laboratory per week,

EET 119L—Circuit Analysis II (5 cr)

(Prerequisite: EET 109L; corequisites: ENG 119 MATH 123, MATH 162 or MATH 180) Passive AC circuits with dependent and independent sources will be studied along with network theorems, phasor analysis, AC measurements, power factor analysis/correction, sweep generation usage and Fourier series. Computers will be used for spreadsheet preparation, graphics, word processing and CAD This course has three hours of lecture and five hours of laboratory per week.

EET 207L—Digital Electronics II (3 cr)

(Prerequisite: EET 117L) Logic circuit decoders, encoders, multiplexers, counters and registers will be studied along with ADCs, DACs, RAM, ROM and applications. Microprocessor structure, timing/control, ALU operation, interface circuits and machine language programming will be introduced. This course has two hours of lecture and three hours of laboratory per week.

EET 208L—Microprocessors (4 cr)

(Prerequisite: EET 113L; corequisite: EET 207L) Microprocessors and microcomputers will be studied in depth with emphasis on machine and assembly language programming. Interrupts and DOS entry points will be introduced. This course has three hours of lecture and three hours of laboratory per week.

EET 209L—Electronic Devices (5 cr)

(Pre- or corequisite: EET 119L) Diodes, bipolar transistors, FETs and circuits including rectifiers, zener diode regulators, clippers, clampers and amplifiers will be studied. Transistor modeling and circuit analysis/design will be stressed along with computer usage for circuit analysis, spreadsheet preparation, graphics and word processing. This course has three hours of lecture and five hours of laboratory per week.

EET 217—Pulsed Power I (3 cr)

(Prerequisite: EET 119L or ELEC 114L) The generation, transmission and measurement of high-voltage, pulsed power systems will be studied. This course meets for two hours of lecture and three hours of laboratory per week.

EET 218L—Microprocessor Interfacing (3 cr)

(Prerequisites: EET 209L, EET 208L) I/O devices including printers, terminals and proto board circuits will be interfaced to a microcomputer. Each student will make an oral presentation and prepare documentation describing system operation and organization along with block diagrams, schematics and structured software. This course has two hours of lecture and three hours of laboratory per week.

EET 219L—Electronic Systems (5 cr)

(Prerequisite: EET 209L; corequisite: EET 218L) Electronic system schematics will be studied along with frequency considerations, decibel usage, differential and operational amplifiers, power supplies, thyristors, PLLs, oscillators and feedback concepts. Each student will prepare a technical manual for a computer-controlled system. Video monitor basics and introductory transmission line theory will be presented. Computers will be used for instrument control and data logging via IEEE488 and RS232 bus interfacing, circuit analysis and word processing. This course has three hours of lecture and five hours of laboratory per week.

EET 220—Pulsed Power II (3 cr)

(Prerequisite: EET 217) This course includes analysis and design of transmission system, vacuum systems, various high voltage and current monitors, probes, high speed data acquisition systems and control systems. All aspects of oil, deionized water and SF6 gas are included. This course meets for one hour of lecture and five hours of laboratory per week.

EET 296—Special Problems (3 cr)

(Prerequisites: Enrolled only in 200 level technical courses and/or permission of the program academic advisor) The student and instructor define a specific problem in the area of the student's interest and directly related to the program. The student then develops and executes a solution using analytical and drafting techniques appropriate to the problem. An oral presentation may be required.

EET 297—Cooperative Training (3 cr)

(Available to students within two terms of graduation in EET program) Employment in the electronics field, if arranged by the student, may satisfy technical elective requirements with approval of the academic advisor. An oral presentation or written report will be required to summarize work experiences.

Electronics Technology

ELEC 103A—Electronics Fundamentals (4 cr)

(Recommended corequisite: ELEC 104 or strong mathemetics background or permission of academic advisor) This course covers the basic concepts of DC electronics with emphasis on Ohm's Law, Kirchhoff's Law, circuit analysis and component application with troubleshooting. Through laboratory exercises students obtain skills in constructing circuits from schematic diagrams and in the use of multimeters. This course has three hours of lecture and three hour of laboratory per week.

Supply Fee: \$15

ELEC 103B—Electronics Fundamentals (4 cr)

(Prerequisite: ELEC 103A) This course covers the basic concepts of AC electronics with emphasis on Ohm's Law, Kirchhoff's Law, circuit analysis and component application. Through laboratory exercises students obtain skills in constructing, analyzing and troubleshooting AC circuits with the use of multimeters, oscilloscopes and function generators. This course has three hours of lecture and three hours of laboratory per week.

ELEC 103L—Electronics Fundamentals (8 cr)

(Recommended corequisite: ELEC 104 or strong mathematics background) This course covers the basic concepts of DC and AC electronics with emphasis on Kirchhoff's Law, circuit analysis and component application with troubleshooting. Students obtain skills in constructing circuits from schematic diagrams and in the use of oscilloscopes, function generators and multimeters in laboratory exercises. This course has five hours of lecture and ten hours of laboratory per week.

Supply Fee: \$15

ELEC 104-Electronics Mathematics (5 cr)

(Prerequisite: MATH 100 or equivalent) This course covers algebra and trigonometry with emphasis on DC and AC circuit analysis. This course meets for five hours of lecture per week.

ELEC 105L-Digital Circuits (4 er)

(Recommended corequisite: ELEC 104 or strong mathematics background) The fundamental concepts and applications of digital logic circuits are covered. Number systems and arithmetic operations are studied. Boolean algebra is applied to combinational logic. The basic logic gates and MSI, LSI circuits are used to develop operational digital circuits. This course has four hours of lecture and one hours of laboratory per week.

ELEC 114A—Semiconductor Devices (3 cr)

(Prerequisite: ELEC 103B or ELEC 103L) This course covers the basic concepts and applications of simple power supplies and operational amplifiers. Through laboratory exercises students will analyze and troubleshoot circuits containing basic electronic components, diodes, transformers, filters, regulators and op amps. This course has two hours of lecture and four hours of laboratory per week.

ELEC 114B—Semiconductor Devices (3 cr)

(Prerequisite: ELEC 114A) This course covers basic concepts, biasing techniques and applications of junction field effect transistors and dipolar transistors. Through laboratory exercises students will analyze and troubleshoot circuits of varying configurations. This course has two hours of lecture and four hours of laboratory per week.

ELEC 114L—Semiconductor Devices (6 cr)

(Prerequisites: ELEC 103L, ELEC 104) This course covers the study of semiconductor devices, diodes, transistors, op amps and JFETS, and their application in simple power supplies and amplifiers. Students obtain skills in constructing, analyzing and troubleshooting semiconductor circuits. This course has four hours of lecture and six hours of laboratory per week.

ELEC 116L—Introduction to Microcomputers (3 \r)

This course covers microcomputer architecture, MS-DOS, word processing, spreadsheets, digital and analog circuit analysis software, computer assisted drafting and an introduction to computer programming. This course has two hours of lecture and three hours of laboratory per week.

Supply Fee: \$10

ELEC 117—Introduction to Lasers (4 cr)

(Prerequisites: ELEC 103L, ELEC 104) This course introduces the student to the basic operation of the laser. The helium neon laser is used to discuss the nature of light, laser operation and laser safety. Manufacturers safety data sheets are discussed. This course has four hours of lecture and one hours of laboratory per week.

ELEC 118A—Electromechanical Devices (4 cr)

(Prerequisite: ELEC 103L, ELEC 104) This course introduces the students to the basic principles and components of hydraulic and pneumatic systems. Through laboratory experiments students will study component operation and principle application. Students will also receive an introduction to vacuum systems technology. This course has three hours of lecture and three hours of laboratory per week.

ELEC 118B—Electromechanical Devices (3 cr)

(Prerequisite: ELEC 118A, ELEC 105L) This course covers various control circuits for DC and AC motors and stepper motors. Through laboratory experiments students will analyze and troubleshoot servosystems for motor speed and positioning control. This course has two hours of lecture and four hours of laboratory per week.

ELEC 118L—Electromechanical Devices (7 cr)

(Prerequisites: ELEC 103L, ELEC 104, ELEC 105L) This course covers theory and application of mechanical devices and their control circuits. Topics include hydraulics, pneumatics, vacuum, AC and DC motors, stepper motors and servomechanisms. Students obtain skills in the assembly, operation and troubleshooting of small-scale electromechanical systems. This course has five hours of lecture and five hours of laboratory per week.

ELEC 202L—Electronic Circuits (7 cr)

(Prerequisite: ELEC 114L) Multiple class, small and large signal amplifier circuits; oscillators; signal conditioning; modulation circuits; and operational amplifiers are covered in this course. Students develop, analyze and troubleshoot complex circuits using the components above in laboratory experiments and assigned projects. This course has five hours of lecture and five hour of laboratory per week.

ELEC 203A—Introduction to Microprocessors (4 cr)

(Prerequisite: ELEC 118L, ELEC 116L) This course covers the organization of a microcomputer using the 8088 CPU, memory and 1/O devices. The course also includes an introduction to assembly language programming. This course has three hours of lecture and three hours of laboratory per week.

ELEC 203B—Introduction to Microprocessors (3 cr)

(Prerequisite: ELEC 203A) This course uses assembly language programming and the I/O devices of the 8088 microcomputer to interface the computer to various external devices. This course has two hours of lecture and four hours of laboratory per week.

ELEC 203L—Introduction to Microprocessors (7 cr)

(Prerequisite: ELEC 118L, ELEC 116L) The course centers on the 8088 microprocessor in an MS-DOS environment. Programs are written in assembly language and in a higher level language to drive the PC's serial I/O, parallel printer port and disk drives. The students build individual buffered interfaces that connect with the PC's I/O backplane for their custom I/O applications.

This course has five hours of lecture and five hours of laboratory per week.

ELEC 204L—Introduction to Computer Programming (3 cr)

(Prerequisite: ELEC 116L) The student learns to program using a high level computer programming language. This course has two hours of lecture and three hours of laboratory per week.

Supply Fee: \$10

ELEC 212L—Electronic Applications (7 cr)

(Prerequisite: ELEC 202L) This course includes an in-depth study of the differential amplifier and its application to the operational amplifier and various circuits; transducers including strain gauges and bridges; applications for thyristors, optoelectronic devices and switching mode power supplies. Related laboratory exercises provide experience in constructing and troubleshooting operating systems. This course has five hours of lecture and five hours of laboratory per week.

ELEC 214L—Troubleshooting Techniques (3 cr)

(Prerequisite: ELEC 202L or equivalent) This course teaches students to apply troubleshooting techniques to a complete electronic system. Emphasis is on systematic analysis to locate problems. This course has two hours of lecture and three hours of laboratory per week.

ELEC 215L-Advanced Microprocessors (7 cf)

(Prerequisite: ELEC 203L) This course centers on the 80386 microprocessor and the IBM RISC System 6000. Programs are written in a high level language to drive the 80386's standard peripherals with emphasis on its VGA video circuitry. Students' 386's are then tied to the RISC System for an introduction to the UNIX operating system. Students build PAL decoded I/O circuitry for their custom I/O applications. Other topics include PLC programming and PC networking techniques. This course has five hours of lecture and five hours of laboratory per week.

ELEC 271—RF Fundamentals (3 cr)

(Prerequisite: ELEC 114L) This course provides study and analysis of electromagnetic interference and broadcast communications systems including AM, FMS, SSB and television. This course has two hours of lecture and three hour of laboratory per week.

ELEC 272—Telecommunications (3 cr)

(Corequisite: ELEC 215L) This course provides system of transmission line, antenna and microwave theory, and data communication techniques including USARTS, RS-232 interfacing and modems. This course has two hours of lecture and three hours of laboratory per week.

ELEC 276L—Soldering Techniques (7 weeks) (2|cr)

Students use a top repair center to learn high-reliability soldering and desoldering techniques. Non-destructive printed circuit board repairs and component replacement techniques also are used. This course has one hour of lecture and four hours of laboratory per week.

ELEC 278—Modern Technological Advances (3 cr)

(Prerequisite: MATH 100 Corequisite: ENG 101 or COM 111) Various topics on the forefront of today's technology are explored. Subjects to be discussed include superconductivity, cryogenics, fiber optics communications, microelectronics, composite materials, material interactions, holography, non-destructive testing, optical computing and chaos. This course has three hours of lecture per week.

ELEC 280—Introduction to Quality Control (3 cr)

(Prerequisite: Completion of all 100 level courses of any program) This course is an introduction to the concepts and practices currently being used in industry to ensure quality. This course has three hours of lecture per week.

ELEC 281—Semiconductor Manufacturing Overview (3 ct)

This course will introduce the student to the semiconductor manufacturing industry, its processes, materials and equipment. This course has three hours of lecture per week.

ELEC 296—Special Problems (3 cr)

(Corequisites: All 200 level courses and/or permission from the academic advisor) The student is given a problem to investigate and solve. The student then designs the solution using a combination of techniques.

Instrumentation and Control Technology

IC 202L—Linear Circuits (7 cr)

(Prerequisites: ELEC 114L, ELEC 118L) The student learns the circuitry necessary for a measurement and control system by studying operational amplifier circuits, active filters, comparators, modulation and demodulation, voltage regulation, A-D convertors and D-A convertors and discrete transistors circuits. This course has five hours of lecture and five hours of laboratory per week.

IC 204L—Introduction to Computer Programming (3 cr)

(Prerequisite: ELEC 116) The student learns to program using a high level computer programming language. Emphasis is on structured, top-down program construction. Program requirements include input and output formats, arrays and files. A simulation project is required using graphics techniques. This course has two hours of lecture and three hours of laboratory per week.

IC 213L—Control Circuits (7 cr)

(Prerequisites: ELEC 203L, IC 202L) Topics include robotics, Pascal applications programming, transducer/computer interfacing projects and solid state motor controls. The PUMA industrial robot with VAL II control language, a three wheel intelligent robot and the Rhino robot are used for student projects. A required systems project is to be designed and constructed by the student. This course has five hours of lecture and five hours of laboratory per week.

Supply Fee: \$15

IC 214L—Instrumentation (7 cr)

(Prerequisites: IC 202L, ELEC 203L) This course covers the theory of process control, voltmeters, oscilloscopes, linear and switching power supplies, signal generators and frequency counters. The accompanying laboratory involves instrument calibration and troubleshooting. The student learns proper soldering techniques. This course has five hours of lecture and five hours of laboratory per week.

IC 215L—Microcontroller Interfacing (3 cr)

(Prerequisite: ELEC 203L) This course provides experience in the practical application of the microcontroller. Also included are projects involving serial communication, PAL's, PLD's, external and internal interrupts and motor controls. This course has two hours of lecture and three hours of laboratory per week.

IC 216L—Industrial Systems (3 cr)

(Prerequisites: ELEC 114L, ELEC 118L) This course uses electromechanical systems donated by local industries to expose students to equipment schematics, maintenance procedures and proper troubleshooting techniques. Students will receive several hours of laboratory in which to practice proper preventive and corrective maintenance procedures. The course has two hours of lecture and three hours of laboratory per week.

IC 296—Special Problems (3 cr)

(Corequisites: IC 214L, IC 215L) The student is given a problem to investigate and solve. The student then designs the solution using a combination of techniques.

Laser Electro-Optic Technology

LEOT 204L—Electronic Circuits (7 cr)

(Prerequisite: ELEC 114L) This course provides a study of multiple class amplifier circuits, oscillators, signal conditioning, and operational amplifiers. In-depth study of these circuits as applied to power supplies is conducted. Students develop, analyze and troubleshoot these circuits in laboratory exercises. This course has five hours of lecture and five hours of laboratory per week.

LEOT 205L—Advanced Laser Systems (4 cr)

(Prerequisite: ELEC 117) This course covers the passes of theory and operation of solid state, ion gas, molecular gas and semiconductor lasers. Laboratory experiments stressing safety, accuracy and technical writing skills are performed. This course has four hours of lecture and one hour of laboratory per week.

LEOT 206—Optics (7 cr)

(Prerequisite: ELEC 117) Principles of geometric and wave optics are studied. Lenses, windows, mirrors and prisms are used to demonstrate imaging, interference and diffraction concepts. Filters, gratings and polarizers also are studied. This course has five hours of lecture and five hours of laboratory per week.

LEOT 208L—Introduction to Microprocessors (\$ cr)

(Prerequisite: ELEC 116L) This course covers the architecture, programming, input/output and applications of a microprocessor. This course has four hours of lecture and one hour of laboratory per week.

LEOT 212L—Vacuum System Technology (1 cr)

(Corequisite: ELEC 118L) This course examines the various types of vacuum equipment used in industry. Laboratory work includes the assembly, maintenance and leak detection of various systems. This course has one hour of lecture and one hour of laboratory per week.

LEOT 214L—Advanced Microprocessors (4 cr)

(Prerequisite: LEOT 208L) A system of digital circuits is studied using a microprocessor. Interfacing to various devices is emphasized. This course has four hours of lecture and one hour of laboratory per week.

LEOT 215L—Electronic Systems Analysis (2 cr)

(Prerequisite: LEOT 204L) Linear integrated circuits are studied. Power supplies are analyzed. Troubleshooting of electronic systems is emphasized. This course has two hours of lecture and one hour of laboratory per week.

LEOT 217L—Advanced Laser Systems with Applications (7 cr)

(Prerequisites: LEOT 205L, LEOT 206) Students perform experiments using fiber optics, A-O Q switch, dye cell, spectrum analyzer and A-O modulator. Electronic instruments are studied for correct usage of application. Students are required to write a technical paper on a topic in the laser electro-optic field. This course has five hours of lecture and five hours of laboratory per week.

LEOT 218L—Laser Measurements (4 cr)

(Corequisite: LEOT 217L) Detection of radiation is covered. Various devices—calorimeters, photo-multiplier tubes, semi-conductor diodes and pyroelectric detectors—and interferometric measurements also are studied. This course has four hours of lecture and one hour of laboratory per week.

LEOT 296—Special Problems (3 cr)

(Prerequisites: Enrolled only in 200 level technical courses and/or permission of the program academic advisor) The student and instructor define a specific problem in the area of the student's interest and directly related to the program. The student then develops and executes a solution using analytical techniques appropriate to the problem. An oral presentation may be required.

Trades & Service Occupations

CCAP 198—Commercial Carpentry Apprenticeship (40 cr)

(Prerequisite: Current full-time employment in the carpentry industry) This course consists of 600 hours of related classroom instruction at T-VI. The classroom instruction covers orientation, safety, shop and trade math, commercial carpentry process for shop tools and equipment, supplies and materials, building systems, blueprint reading, concrete, specifications and code interpretation.

CUAP 198—Culinary Apprenticeship (36 cr)

(Prerequisite: Current full-time employment in the food service industry) This course consists of 400 hours of theory taught at T-VI. Theory covers culinary history, garde manger (food decorating), food management techniques and front-of-the-house personnel use. A three-step written and practicum final exam, administered in conjunction with the American Culinary Federation Rio Grande Valley Chapter, is required to graduate.

ETAP 198—Electrical Trades Apprenticeship (40 cr)

(Prerequisite: Current full-time employment in the electrical trades industry) This course consists of 600 hours of related classroom instruction at T-VI. The classroom instruction covers safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor controls.

PLAP 198—Plumbing Apprenticeship (40 cr)

(Prerequisite: Current full-time employment in the plumbing industry) This course consists of 600 hours of related classroom instruction at T-VI. The classroom instruction covers safety, shop and trade math, plumbing processes, blueprint reading and mechanical code (plumbing) interpretation.

SMAP 198—Sheet Metal Apprenticeship (40 cf)

(Prerequisite: Current full-time employment in the sheet metal industry) This course consists of 600 hours of related classroom instruction at T-VI. The classroom instruction covers safety, shop and trade math, sheet metal processes for shop machinery, triangulation lay-out, radial line layout, parallel line layout, blueprint reading, and Sheet Metal and Air Conditioning National Assn. (SMACNA) manuals.

Air Conditioning, Heating and Refrigeration

ACHR 103—Basic Refrigeration Theory (2 cr)

(Prerequisite: Minimum Placement Test Scores of 7-8 in BOTEL and 31—Part I, 6—Part II, and 2—Part III in Math) This course includes basic refrigeration theory and servicing techniques. An introduction to domestic refrigeration systems is also included. This course meets for four hours per week for seven and one-half weeks.

ACHR 103L—Basic Refrigeration Lab (2 cr)

(Prerequisite/corequisite: ACHR 103) Thise lab course includes shop safety, basic tool use, soldering, brazing, basic refrigeration servicing and use of gauges. Also included are servicing techniques for domestic refrigerators. This course meets ten hours per week for seven and one-half weeks.

ACHR 104—Control Circuitry Theory (2 cr)

(Prerequisite/corequisite: ACHR 103, 106) This course is an introduction to basic electrical theory and control circuitry of domestic refrigeration. Single-phase motor theory, the use of sequences, the interpretation and use of wiring diagrams and ladder sequences are covered. This course meets two hours per week for 15 weeks.

ACHR 104L—Control Circuitry Lab (2 cr)

(Prerequisite/corequisite: ACHR 104) This lab covers the wiring, electrical servicing and troubleshooting of domestic refrigeration, and heating and air conditioning units. Emphasis will be placed on safety when working with electricity. This course meets for five hours per week for 15 weeks.

ACHR 105—Basic Air Conditioning Theory (2 cr)

(Prerequisite/corequisite: ACHR 103, ACHR 104) This course includes basic air conditioning and heating theory and servicing techniques. This course meets for four hours per week for seven and one-half weeks.

ACHR 105L—Basic Air Conditioning Lab I (3 cr)

(Prerequisite/corequisite: ACHR 103L, 104L, 105) This course covers the introduction to servicing and troubleshooting window air conditioners, gas-fired and electric heating systems. This course meets 10 hours per week for seven and one-half weeks.

ACHR 106—Basic Refrigeration Math I (1 cr)

(Prerequisite: Minimum Placement Test Scores of 7-8 in BOTEL and 31—Part 1, 6—Part II, and 2—Part III in Math) This course reviews basic arithmetic functions. An introduction to Ohm's law with series, parallel and combination circuits is provided. Mechanical work and power calculations are also covered This course meets one hour per week for 15 weeks.

'ACHR 170—Pneumatic Control Systems (3 cr)

Basic control system components and diagrams are included. Emphasis is on the installation and calibration of typical pneumatic control systems used for environmental control. This combination theory/lab course meets five hours per week for 15 weeks.

'ACHR 172-Basic Air Conditioning, Heating and Refrigeration (3 cr)

The student is introduced to the types and components of basic refrigeration and air conditioning systems. Preventive maintenance is stressed throughout this course. Simple servicing and troubleshooting skills are developed. This theory/lab course meets five hours per week for 15 weeks.

ACHR 201L—Air Conditioning, Heating and Refrigeration Theory/Control Circuitry Lab III (9 cr)

(Prerequisite: ACHR 114, 114L, 115, 115L, 116, 116L, 117) The installation, maintenance and service of commercial air conditioning, heating and various refrigeration systems are covered, along with multizone heating/cooling, chilled water and hot water systems. More advanced control theory and terminology are also covered. Emphasis is on electrical, pneumatic and solid state circuitry as well as electronic and electric control devices, their installation and service. This course meets 15 hours per week for 15 weeks.

ACHR 202L—Sheet Metal Theory/Lab (9 cr)

Instruction is provided in sheet metal processes performed with hand, bench, cutting and layout tools; safety; care of tools and equipment; use of materials and supplies; straight pattern development and fabrication. Lab projects are oriented to typical heating and ventilation installations. Study of the design, layout and application of air distribution duct systems for air conditioning also is included. This course meets 15 hours per week for 15 weeks.

Automotive Body Repair

AUBO 102—Math/Basic Electricity (3 cr)

(Prerequisite: Minimum Placement Test Scores of 7-8 in BOTEL and 31—Part 1 in Math) The student learns and applies basic math principles as they relate to measuring tools, equipment, graphs and schematics. The theory of mechanical power, basic electricity principles, related terminology, and electrical component identification also are covered. An introduction to diagnostic equipment, testing procedures and theory related to heavy equipment, electrical systems, troubleshooting and repair procedures is included. This course meets three hours per week for 15 weeks.

AUBO 103 Auto Body Theory I (3 cr)

(Prerequisite: Minimum Placement Test Scores of 7-8 in BOTEL and 31—Part I in Math) This lecture/theory course introduces students to all phases of the auto collision industry. Basic information pertaining to safety, environmental issues, terminology, fasteners, body and frame construction, hand tools, power equipment minor damage repair, refinishing systems and techniques, detailing, auto body welding and estimating cost of repairs are covered. This course meets three hours per week for 15 weeks.

Elective course

AUBO 104L-Auto Body Welding I (2 cr)

(Prerequisite/corequisite: AUBO 103, AUBO 102) This lab course provides basic instruction on safety and set up and operation of oxy acetylene and shielded metal-arc welding equipment. The procedures for cutting, welding and brazing automotive sheet metal are covered. This course meets ten hours per week for seven and one-half weeks.

AUBO 105L—Body and Frame Construction (2 cr)

(Prerequisite/corequisite: AUBO 103) This lab course covers shop safety and use of hand and power tools. Instruction is provided in fastening and assembly techniques and bolt on body panel removal and replacement. This course meets ten hours per week for seven and one-half weeks.

AUBO 106L—Automotive Detailing (2 cr)

(Prerequisite/corequisite: AUBO 103) This lab course covers the basics of safety, hand and power tool use, cleaning, buffing, waxing, and touch up pertaining to detailing automobiles and trucks. This course meets ten hours per week for seven and one-half weeks.

AUBO 107L—Automotive Refinishing I (2 cr)

(Prerequisite/corequisite: AUBO 103, AUBO 102) This lab course covers the basics of safety, environmental concerns, equipment basic refinishing materials usage, surface preparation, undercoats, refinishing systems and top coat application. This course meets ten hours per week for seven and one-half weeks.

AUBO 108L—Estimating (1 cr)

(Prerequisite/corequisite: AUBO 102 and 103) Students are introduced to basic principles of shop management and estimating the cost of repairs. Basic instruction is provided covering inventory control ordering parts and materials and customer relations. This course meets two and one-half hours per week for 15 weeks.

AUBO 112 Auto Body Theory II (3 cr)

(Prerequisite: AUBO 102, 103, 104L, 105L, 106L, 107L, 108L) The student receives instruction in safety, environmental concerns, body shop tools and equipment, removal and replacement of body panels/glass, repairs to heaters, cooling systems and related electrical systems. This theory course covers comprehensive refinishing systems and techniques and basic instruction in welding equipment and procedures. This course meets three hours per week for 15 weeks.

AUTC 113 Transportation Electronics (3 cr)

(Prerequisite: AUBO 102) The student learns and applies basic math principles as they relate to measuring tools, equipment, graphs and schematics. The theory of mechanical power, basic electricity principles, related terminology and electrical component identification also are covered. An introduction to diagnostic equipment, testing procedures and theory related to heavy equipment, electrical systems, troubleshooting and repair procedures is included. This course meets three hours per week for 15 weeks.

AUBO 114L—Auto Body Welding II (2 cr)

(Prerequisite/corequisite: AUBO 105 and 112) This lab course provides advanced welding instruction with gas metal arc welding, plasma cutting. This course meets ten hours per week for seven and one-half weeks.

AUBO 115L—Body Panel Replacement (2 cr)

(Prerequisite/corequisite: AUBO 112, AUBO 113) This lab course covers the basics of shop safety, hand and power tool usage and the removal, replacement and adjustments of body parts and panels. The course also provides instruction in basic light pulling and alignment techniques. This course meets ten hours per week for seven and one-half weeks.

AUBO 116L-Automotive Refinishing II (2 cr)

(Prerequisite/corequisite: AUBO 112) This lab course covers cleaning, sanding, masking, all phases of surface preparation, metal treatment, undercoats and comprehensive refinishing systems. This course meets ten hours a week for seven and one-half weeks.

AUBO 117L—Glass Removal and Replacement (1 cr)

This lab course provides basic instruction in safety, use of tools and removal and replacement of glass and related components in passenger cars and trucks. This course meets two and one-half hours per week for 15 weeks.

AUTC 118L-Automotive Air Conditioning (2 cr)

(Prerequisite/corequisite: AUBO 112 and AUTC 113) This theory/lab course provides basic instruction of safety, environmental concerns, tools, equipment, and servicing and repair of air conditioning systems in passenger cars and trucks. This course meets six hours per week for seven and one-half weeks.

AUBO 202 Auto Body Theory III (3 cr)

(Prerequisite: AUBO 112, 113, 114L, 115L, 116L, 117L, 118) This theory course covers comprehensive collision repair, body panel replacement, related electrical systems, corrosion protection, human relations, estimating techniques, damage diagnosis, measuring and alignment procedures. The course meets three hours per week for 15 weeks.

AUBO 203L-Auto Body Welding III (3 cr)

(Prerequisite/corequisite: AUBO 202) This course covers safety use of mig and tig welding equipment and basic welding procedures in all positions. The basis of plastic welding equipment and procedures are covered. This course meets ten hours per week for seven and one-half weeks.

AUBO 204L-Major Collision Repair (2 cr)

(Prerequisite/corequisite: AUBO 202 and 203) The student receives lab instruction in safety, use of pulling and measuring equipment. Students learn how to analyze damage, equipment hook up to restore frame, under body, suspension and body shell to original specifications. The course also covers power tools and equipment, comprehensive collision repair, related electrical systems, advanced mig, gas tungsten are welding. The course meets ten hours per week for seven and one-half weeks.

AUBO 205L-Plastic Soft Parts Repair (2 cr)

(Prerequisite/corequisite: AUBO 203) This lab course provides basic instruction on the identification, repair and refinishing of plastic, fiberglass and soft body parts and accessories. The course meets ten hours per week for seven and one-half weeks.

AUBO 206L—Advanced Refinishing Techniques (2 cr)

(Prerequisiteicorequisite: AUBO 202) The students perform spot, panel and complete refinishing projects in a modern production shop environment. The course meets ten hours per week for seven and one-half weeks.

AUBO 207L—Corrosion Protection/Undercoating (1 cr)

This lab course provides basic instruction in the safety, recognition, selection removal and replacement of undercoating, sealers, and corrosion protection. The course meets two and one-half hours per week for 15 weeks.

Automotive Technology

AUTC 102—Math/Basic Electricity (3 cr)

(Prerequisite/corequisite: Minimum Placement Test Scores of 9-12 in BOTEL and 31—Part I in Math) This course teaches the student basic math principles as they relate to measuring tools, equipment, graphs and schematics. The theory of mechanical power, basic electricity principles, related terminology, and electronic component identification also are covered. The students are introduced to diagnosis equipment testing procedures and theory related to automotive electrical systems troubleshooting and repair procedures. This course meets three hours per week for 15 weeks.

AUTC 103—Automotive Engine Overhaul Theory (2 cr)

(Prerequisite/corequisite: Minimum Placement Test Scores of 9-12 in BOTEL and 31—Part 1 in Math; AUTC 102) This course is designed to teach the student the skills needed to identify engine systems (cooling, ignition, fuel, emission, and exhaust) and the proper use of measuring tools to determine necessary repairs and services. The course is also designed to explain the operation of the internal combostion engine and the basic principals of engine overhaul. This course meets two hours per week for 15 weeks.

AUTC 103L—Automotive Engine Overhaul Lab (2 tr)

(Prerequisite/corequisite: AUTC 102 and 103) The course is designed to teach the student the skills needed to perform normal engine maintenance to include fluid changes, adjustments, and minor repairs. The students will also be taught the correct use of precision measuring tools to determine the necessary repairs needed. This course will also include the testing, removal and replacement, and overflauling of an automotive engine. All of these procedures will be taught to the student with the use of the most current methods available. This course meets five hours per week for 15 weeks.

AUTC 104—Automotive Brakes Theory (2 cr)

(Prerequisite/corequisite: AUTC 102) This course is designed to teach the student to identify mechanical, hydraulic, and electrical parts in the brake systems of automobiles. The student will also be taught the proper use of tools and equipment for the service and repair of such systems, and the theory of operation of each system. This course meets two hours per week for 15 weeks.

AUTC 104L—Automotive Brakes Lab (2 cr)

(Prerequisitelorequisite: AUTC 102 and 105) This course is designed to teach the student the physical methods of testing, repair and replacement of parts in automotive brake systems, including proper use of tools and equipment. This course meets five hours per week for 15 weeks.

AUTC 105—Automotive Suspension and Alignment Theory (2 cr)

(Prerequisite/corequisite: AUTC 102) This course is designed to teach the student to identify the parts of the automotive suspension systems. The course will also teach the theory of each part and methods of determining needed repairs and/or adjustments. The student will also be taught the theory of front-end and four wheel alignment methods and procedures. This course meets two hours per week for 15 weeks.

AUTC 105L—Automotive Suspension and Alignment Lab (2 cr)

(Prerequisite/corequisite: AUTC 102 and 105) This course is designed to teach the student the correct use of tools and equipment to perform the necessary repairs of suspension systems. The student will also be taught the correct methods and use of equipment to perform front-end and four wheel alignments. This course meets five hours per week for 15 weeks.

AUTC 113—Transportation Electronics (3 cr)

(Prerequisites: AUTC 102, 103, 103L, 104, 104L, 105, 105L) This course provides the information required to test and replace malfunctioning electronic components. The theory of solid-state devices, basic principles of electronics, and interpretation of circuit diagrams are included. Signal tracing characteristics and operation of semi-conduction diodes and rectifier circuits are covered. Lab experiments are conducted on full wave and voltage rectifiers, transistors, thyristors, integrated circuits, operational amplifiers, digital gates and timing circuits. This course meets three hours per week for 15 weeks.

AUTC 114—Manual Transmissions and Axles Theory (3 cr)

(Prerequisites/corequisite: AUTC 102) This course will cover the design and operation of front and rear drive manual transmissions, and differentials and drive lines of various styles. Maintenance, service procedures and troubleshooting theory is also emphasized. This course meets three hours per week for 15 weeks.

AUTC 114L—Manual Transmission and Axles Lab (3 cr)

(Prerequisitelcorequisite: AUTC 114) This course will instruct the student with skills required to service, repair or overhaul automotive manual transmissions and clutches on front and rear drive vehicles. Also included is service and overhaul of differential assemblies and drive lines, as well as diagnostic procedures in solving noise vibration and harshness problems. This course meets seven and one-half hours per week for 15 weeks.

AUTC 115—Automatic Transmissions and Transaxles Theory (2 cr)

(Prerequisite/corequisite: AUTC 102) This course will cover design and operating theory of automotive transmissions and transaxles. Procedures and theory of service and troubleshooting are also covered. This course meets two hours per week for 15 weeks.

AUTC 115L-Automatic Transmissions and Transaxles Lab (2 cr)

(Prerequisite/corequisite: AUTC 115) This course shall assist the student through hands-on experience in developing skills required to service overhaul and troubleshooting automatic transmission and transaxles. Techniques and procedures from AUTC 116 shall be emphasized. This course meets seven and one-half hours per weeks for 15 weeks.

AUTC 118L—Automotive Air Conditioning (2 cr)

(Prerequisite/corequisite: AUTC 113) This theory/lab course provides basic instruction of safety, environmental concerns, tools, equipment, and servicing and repair of air conditioning systems in passenger cars and trucks. This course meets three hours per week for 15 weeks.

'AUTC 170—Transportation Trades Machining (3 cr)

This course introduces basic machine shop practices particularly as they relate to the auto diesel mechanic. Instruction is provided in safety, hand tools, elementary lathe, mill and drill press. Emphasis is on tapping, re-threading, broken stud removal, thread inserts, shaft straightening, torque wrenches, fasteners, sized nuts and chisel use. This combination theory/lab course meets five hours per week for 15 weeks.

'AUTC 172—Air Care Inspector (1 cr)

This course provides the training required for mechanics to become certified air care inspectors by the City of Albuquerque under their Vehicle Pollution Management program. This course will cover the city and federal rules and regulations governing air pollution, emissions inspections and approved manufacturers' analyzers. This combination theory/lab course meets four hours per week for seven weeks.

'AUTC 173-Air Care Mechanic (2 cr)

(Prerequisite: Successful completion of AUTC 172) This course covers the rules and regulations governing air pollution, emissions inspections, approved manufacturers' analyzers, waivers, extensions, extended warranties and emission control devices and equipment. This combination theory/lab course meets six and one-half hours per week for seven and one-half weeks.

AUTC 201L—Automotive Technology Theory/Lab III (15 cr)

(Prerequisites: AUTC 113, 114, 114L, 115, 115L, 118L) This course covers the theory, diagnosis and repair of electrical components, fuel systems, and heating and air conditioning systems. Students also learn to tune-up vehicles. Emission control standards and components are covered. This course meets 25 hours per week for 15 weeks.

Baking

BKNG 102—Food Service Mathematics (3 cr)

(Prerequisite: Minimum Placement Test Scores of 5 in BOTEL and 24—Part 1 in Math; corequisite: BKNG 103) The student learns basic arithmetic skills for sales, portioning and pricing of food products. Students also learn to use cash registers. This course meets three hours per week for 15 weeks.

BKNG 103—Baking Theory I (2 cr)

(Prerequisite: Minimum Placement Test Scores of 5 in BOTEL and 24—Part I in Math)
This lecture/theory course introduces students to baking fundamentals in the scratch
production of breads, sweet yeast goods and assorted pastries. The course includes
ingredient function, storage, sanitation, safety, formulation and human relation skills. This
course meets two hours per week for 15 weeks.

BKNG 104L—Breads (2 cr)

(Prerequisite/corequisite: BKNG 102 and 103) This lab course provides basic instruction on fundamentals of mixing and processing ingredients in a variety of pan, Pullman and hearth breads. Rolls and buns are also included. This safety oriented course meets five hours per week for 15 weeks.

BKNG 105L—Sweet Yeast Goods (2 cr)

(Prerequisitelcorequisite: BKNG 102 and 103) This lab course covers basic instruction in retail production of donuts, sweet rolls, cinnamon rolls, coffeecake and Danish. Proper sanitation technique, portion control and costing skills are included. This course meets five hours per week for 15 weeks.

BKNG 106L—Cake Batters (2 cr)

(Prerequisite/corequisite: BKNG 102 and 103) This lab course covers basic instruction in the fundamentals of mixing and processing ingredients in a variety of cake batters, icings and fillings. The student learns basic cake decorating skills. Special emphasis is placed on ingredient storage, proper formulation and care and use of bakery equipment. This course meets five hours per week for 15 weeks.

BKNG 107L—Pies And Pastries (2 cr)

(Prerequisite/corequisite: BKNG 102 and 103) This lab course covers a variety of specialized pastries with emphasis on roll-in doughs and leavening agents. The students are introduced to communication, human relation and interviewing skills. This course meets five hours per week for 15 weeks.

BKNG 112—Baking Theory II (2 cr)

(Prerequisites: BKNG 102, 103, 104L, 105L, 106L, 107L) This lecture/theory course continues the principles of Baking I with emphasis on baking chemistry and advanced production procedures. More study of international pastries and desserts is provided with advanced decorating techniques. Safety and sanitation are stressed in this course. This course meets two hours per week for 15 weeks.

BKNG 113L—Yeast Doughs (2 cr)

(Prerequisite/corequisite: BKNG 1/2) The student learns, in this lab course, advanced production procedures of a variety of breads, sweet doughs and croissants. This course meets five hours per week for 15 weeks.

BKNG 114L—Batters (2 cr)

(Prerequisite/corequisite: BKNG 112) The student learns advanced production procedures of a variety of international cakes and tortes with emphasis on baking chemistry. This course meets five hours per week for 15 weeks.

BKNG 115L—Pastries/Cookies (2 cr)

(Prerequisite/corequisite: BKNG 112) The student learns advanced production techniques of international pastries, pies and petit fours. The student will also learn the seven different methods of cookie production techniques. International roux products are introduced. This course meets five hours per week for 15 weeks.

BKNG 116L—Icings and Fillings (2 cr)

(Prerequisite/corequisite: BKNG 112) The student learns advanced production techniques of international buttercreams, fondants, ganache and marzipan. Competition pieces are covered in this session. This course meets five hours per week for 15 weeks.

BKNG 117L—Cake Decorating (2 cr)

(Prerequisite/co-requisite: BKNG 112) In this lab course, the student expands on fundamental knowledge on the production of tiered, special occasion and sculpted cakes. This course meets five hours per week for 15 weeks.

BKNG 118-Cookies (1 cr)

(Prerequisites: BKNG 112) In this lab course, the student learns the 7 different methods of cookie production techniques. International roux products are introduced. This course meets 2.5 hours per week for 15 weeks.

Carpentry

CARP 102—Carpentry Mathematics/Blueprint Reading I (4 cr)

(Prerequisite: Minimum Placement Test Scores of 5 in BOTEL and 31—Part 1 and 6—Part II in Math) This course provides instruction in whole numbers, combining numbers, lumber sizing, scaling, centering and triangle theory. Instruction in the interpretation of elevation drawings and floor plans, symbols and notations, dimensions and structural information is included. Students are introduced to material estimation. This course meets four hours per week for 15 weeks.

CARP 103—Carpentry Theory I (4 cr)

(Prerequisite: Minimum Placement Test Scores of 5 in BOTEL and 31—Part I and 6—Part II in Math; corequisite: CARP 102) This course provides instruction in the safety and use of hand and power tools, site layout, footing and stemwall construction, styles of framing, rafter construction, roof construction, exterior wall coverings, insulation, and drywall methods. This course meets four hours per week for 15 weeks.

CARP 104L—Foundations and Framing (3 cr)

(Prerequisitelcorequisite: CARP 102 and 103) This lab course provides instruction in the safety and use of hand and power tools, actual site layout, footing and stemwall construction, wall framing and flat concrete work. This course meets 15 hours per week for seven and one-half weeks.

CARP 105L—Stairs, Rafters, and Roofs (3 cr)

(Prerequisite/corequisite: CARP 102, 103, 104) This lab course provides instruction in safety, building of stairs and stairways, rafter construction, roof construction, installation of exterior doors, windows and exterior wall coverings. This course meets 15 hours per week for seven and one-half weeks.

CARP 111L—Carpentry Theory/Lab II (12 cr)

(Prerequisite: CARP 102, 103, 104L, 105L) This course is a continuation of CARP 104L and 105L with the addition of insulation, drywall, finish carpentry, basic construction and installation of cabinets and millwork. Maintenance, remobeling, concrete finishing and light commercial construction are emphasized. This course meets 20 hours per week for 15 weeks.

CARP 112—Carpentry Mathematics/Blueprint Reading II (3 cr)

(Prerequisite: CARP 102, 103, 104L, 105L) This course includes and introductory study of blueprint applications to residential homes, multiple family dwellings and commercial buildings. Instruction also is provided in the use of rules and formulas for material estimating, volume measure, ratio and proportion. This course meets five hours per week for 15 weeks.

Commercial Printing

CMPR 102—Commercial Printing Math (2 cr)

(Prerequisite: Minimum Placement Test Scores of 9-12 in BOTEL and 35—Part 1 in Math; corequisite: CMPR 102) This course provides instruction in math as it applies to the printing trade for measurements, ink and chemical formulas, paper cuts and job pricing. This course meets two hours per week for 15 weeks.

CMPR 103-Offset Theory I (3 cr)

(Prerequisite: Minimum Placement Test Scores of 9-12 in BOTEL and 35—Part I in Math) This course covers conceptual material encompassing the entire sequence of offset printing. Design theory, layout and paste up techniques, darkroom procedures and workflow, and offset press operational principles are major areas of discussion. Pre-press math for design, paste-up, darkroom and film are taught as well. Learners also are exposed to job-seeking and job retention skills. This course acquaints learners with microcomputer operation with an emphasis on knowledge of word processing and desktop publishing. This course meets three hours per week for 15 weeks.

CMPR 104L—Graphics Studio (2 cr)

(Prerequisite/corequisite: CMPR 102 and 103) This course introduces learners to graphics design principles through a wide variety of instructor- and student-initiated projects. Students practice manual layout and paste-up techniques using the most widely accepted tools, equipment and materials. Learners also acquire basic camera, typesetting and film assembly skills in this course. This course meets five hours per week for 15 weeks.

CMPR 105L-Pre-Press Equipment and Techniques Lab (2 cr)

(Prerequisite/corequisite: CMPR 102, 103, 104L) This lab builds on the basic knowledge and skills students master in CMPR 103. Students undertake projects of greater complexity in this lab. They learn multi-color pre-press techniques, how to produce halftones and graphic arts camera special effects. Process color stripping using pin registration is practiced extensively. Students learn advanced typesetting, tray film developing, platemaking, bright light contacting and proofing methods in this lab. This course meets five hours per week for 15 weeks.

CMPR 106L—Press and Bindery Lab (2 cr)

(Prerequisitelcorequisite: CMPR 102, 103, 104L, 105L) In this lab students learn the procedures for setup, operation, cleanup and maintenance of several popular brands and models of offset presses. Students run a combination of their own work and projects which resemble commercial work from outside "customers." Through press experience students learn how the care (or lack of it) taken in a project's pre-press stages affects the quality of the printed product. Students get further practice in platemaking and initial training in custom ink mixing and basic bindery and finishing. This course meets five hours per week for 15 weeks.

CMPR 107L—Advanced Projects Lab (2 cr)

(Prerequisite/corequisite: CMPR 102, 103, 104L, 105L, 106L) This course simulates actual working conditions. Students are expected to develop complex projects and complete them with the same efficiency, economy and professionalism which employers would demand. This course meets five hours per week for 15 weeks.

CMPR 112—Commercial Printing Theory II (2 cr)

(Prerequisite: CMPR 102, 103, 104L, 105L, 106L, 107L) This theory/lecture class covers advanced techniques in offset printing. A continuation of training in design theory, layout and paste-up techniques, darkroom processes, and press operation are included in this course. Students learn page layout skills and techniques using advanced graphics and word processing software. Students are exposed to both of the most popular professional desktop publishing hardware and software systems currently in use. This lab also helps improve graphic design and writing skills. This lab experience runs concurrently with other labs and students work here during preassigned times. This course meets five hours per week for 15 weeks.

CMPR 113L—Desktop Publishing (2 cr)

(Prerequisite: CMPR 102, 103, 104L, 105L, 106L, 107L; corequisite: CMPR 112) This course covers the layout of graphics, word processing, use of CD ROM readers and laser printers. Students use high end professional desktop publishing software. This course meets five hours per week for 15 weeks.

CMPR 114L—Estimating (2 cr)

(Prerequisites: CMPR 102, 103, 104L, 105L, 106L, 107L; corequisite: CMPR 112 and 113L) This lab/theory class teaches students the basics of estimating costs, labor and overhead for a variety of printing jobs. Students learn how to charge jobs in a simulated business environment. This course meets five hours ber week for 15 weeks.

CMPR 115L—Production Printing (4 cr)

(Prerequisite: CMPR 102, 103, 104L, 105L, 106L, 107L; corequisite: CMPR 112 and 114L) In this lab students learn the procedures for setup, operation, cleanup and maintenance for several models of offset presses. Students get further practice in plate making and training in custom ink mixing, bindery and finishing. They learn advanced techniques with all equipment in a job shop environment. This course meets ten hours per week for 15 weeks.

Criminal Justice

CJ 101—Criminal Law and Procedure (3 cr)

(Prerequisite: Minimum Placement Test Scores of 9-12 in BOTEL and 31-Part 1 in Math) This course is a study of the historical development, purposes and goals of common and statutory criminal law and the procedures which control actions in the criminal justice system.

CJ 102—Juvenile Justice and Procedure (3 cr)

(Prerequisite: Minimum Placement Test Scores of 9-12 in BOTEL and 31—Part I in Math) This course covers the juvenile court and justice system including the Children's Code and the Rules of Procedure.

CJ 103—Probation and Parole (3 cr)

(Prerequisite: Minimum Placement Test Scores of 9-12 in BOTEL and 31—Part I in Math) This course includes a study of history, philosophy and legal basis governing investigation and supervision of judged juvenile offenders and adult violators placed on probation and parole.

CJ 104—Patrol Procedures (3 cr)

(Prerequisite: Minimum Placement Test Scores of 9-12 in BOTEL and 31—Part 1 in Math) This course introduces the basic patrol function and the problems faced by law enforcement officers in the accomplishment of this function.

CJ 106-Police and Presentence Investigation Reports (1 cr)

(Prerequisite: Minimum Placement Test Scores of 9-12 in BOTEL and 31—Part I in Math) The study and use of police and presentence investigation reports.

CJ 109—Introduction to Security Services (3 cr)

History and development of the security services function, interrelationships to the legal process, career roles and operational processes in various security operations: industrial and other agencies. The course will also show homeowners how to make living quarters more secure. Includes personal defense, report writing, emergency procedures and defensive driving.

CJ 111—Traffic Investigation and Enforcement (3 cr)

(Prerequisites: CJ 104, CJ 106 and Math 120) This course includes the study of traffic law enforcement and basic wreck checking, and progresses to the complete investigation of major accidents.

CJ 112—Criminal Investigation (3 cr)

(Prerequisites: CJ 101 and CJ 106) Basic criminal investigation is studied from the preliminary investigation to final preparation and presentation in court.

CJ 113—Organized and White Collar Crime (3 cr)

(Prerequisite: CJ 101) This course includes the study of illegal activities of people and institutions whose purpose is profit through legitimate business, and illegal activity of people and organizations whose purpose is illegitimate gain through illegal enterprise.

CJ 114—Contemporary Enforcement Techniques (3 cr)

(Prerequisites: CJ 101, CJ 104, and limited to Criminal Justice majors) Verbal and manual skills which officers use on a daily basis—ranging from handcuffing and restraint to field notes and testimony—are studied.

CJ 115—Physical Conditioning (1 cr)

(Prerequisites: Limited to Criminal Justice majors; class size limited to 20 students) This course introduces the student to the concept of health maintenance by use of methods and equipment.

'CJ 296—Special Topics (1-6 cr)

This course includes an in-depth study of problems and the advanced techniques that criminal justice experts use in responding to them.

Diesel Mechahics

DIME 102-Math/Basic Electricity (3 cr)

(Prerequisite: Minimum Placement Test Scores of 9-12 in BOTEL and 31—Part 1 in Math) The student learns and applies basic math skills such as fractions, decimals, percentages, ratios, proportions, areas, volumes, basic electricity principles and electrical circuits. Horsepower and other power theories are also covered in this course. This course meets three hours per week for 15 weeks.

DIME 103—Diesel Engine Theory (3 cr)

(Prerequisites: Minimum Placement Test Scores of 9-12 in BOTEL and 31—Part 1 in Math) Emphasis is placed on two- and four-stroke cycle diesel engine operating principles. The operation, troubleshooting, and repair procedures are covered for the following components and systems; blocks crankshafts, camshafts, rods, bearing, pistons, cylinder heads, lubrication systems, cooling systems, fuel systems, air induction and exhaust systems. This class meets three hours per week for 15 weeks.

DIME 104L—Precision Measurement and Component Repair (3 cr)

(Prerequisite/corequisite: DIME 102 and 103) This course deals with the use of micrometers and dial indicators as used in the industry. Measurements are done on engines and compared to manufacturer's specifications. Component repair will involve disassembly, evaluation and reassembly of units such as blowers, turbochargers, oil pumps, water pumps, and fuel transfer pumps. This course meets seven and one-half hours per week for 15 weeks.

DIME 105L—Engine Overhaul (3 cr)

(Prerequisite/corequisite: DIME 102, 103, 104L) Engine disassembly, evaluation, reassembly techniques are covered in this course. The engine is assembled to manufacturers recommended tolerances and specifications, adjusted and test run. This course meets seven and one-half hours per week for 15 weeks.

DIME 106L—Engine Tune-Up and Testing (2 cr)

(Prerequisite/corequisite: DIME 102, 103, 104L, 105L) Engine adjustments and tune-ups are performed on major brands of engines. Troubleshooting and dynamometer testing techniques are performed on engines in running condition. This course meets five hours per week for 15 weeks.

DIME 111L—Diesel Theory/Lab II (12 cr)

(Prerequisites: DIME 102, 103, 104L, 105L, 106L) Basic theory of the entire drive train and hydraulic systems is studied. The course covers shop safety and the theory related to test equipment, diagnosis, trouble-shooting, analysis procedures and an introduction to job seeking and job retention skills. Instruction includes the service and repair of drive train and hydraulic system components. This course meets 20 hours per week for 15 weeks.

DIME 113—Transportation Electronics (3 cr)

(Prerequisites: DIME 102, 103, 104L, 105L, 106L) Students learn how multimeters are used in analyzing basic direct and alternating current circuits. The theory of solid-state devices, basic principles of electronics and interpretation of circuit diagrams are covered. This course meets five hours per week for 15 weeks.

DIME 201L—Diesel Theory/Lab III (15 cr)

(Prerequisites: DIME 111L and 113) Students learn safety, diagnosis, troubleshooting and repair procedures of electrical systems, fuel injection components and air conditioning systems. This course meets 25 hours per week for 15 weeks.

Electrical Trades

ELTR 102—Electrical Trades Mathematics I (4 cr)

(Prerequisite: Minimum Placement Test Scores of 7-8 in BOTEL and 35—Part 1, 6—Part II, and 2—Part III in Math) The student reviews basic arithmetic functions and is introduced to electrical formulas which include Ohm's and Kirchhoff's laws. Problem solving includes calculations of material and circuit load requirements; rules for series, parallel and combination circuits; and mechanical work and power. This course meets four hours per week for 15 weeks.

ELTR 104—Electrical Theory I (4 cr)

(Prerequisite/corequisite: Minimum Placement Test Scores of 7-8 in BOTEL and 35—Part I, 6—Part II, and 2—Part III in Math; ELTR 102) This lecture/theory course covers the basic concepts of DC and AC electricity with emphasis on Ohm's Law, Kirchoff's Law, circuit analysis and troubleshooting. Subject areas include DC and AC theory, symbol identification, schematic reading, circuit application, magnetism, basic transformers, single-phase motors and application of the National Electrical Code. This course meets four hours per week for 15 weeks.

ELTR 105L—Electrical DC/AC Lab (3 cr)

(Prerequisite/corequisite: ELTR 102, 104) This lab course covers the basic fundamentals of electricity. Emphasis is placed on safety. Red Cross first aid and CPR are presented for which certification is issued upon successful completion. Topics include electrical circuitry, meters, power sources, conductors, insulators, reactive circuits and application of the National Electrical Code. This course meets 15 hours per week for seven and one-half weeks.

ELTR 106L—AC Circuitry, Motors, Generators (3 cr)

(Prerequisite/corequisite: ELTR 104 and 105) This lab course provides advanced instruction in electrical alternating current concepts. Subjects include combination circuit analysis, RLC circuitry, DC/AC motors, generators, solid-state components, wiring methods for single pole and 3-way switches and application of the National Electrical Code. This course meets 15 hours per week for seven and one-half weeks.

ELTR 112—Electrical Trades Mathematics II (4 cr)

(Prerequisite: ELTR 102) This course advances student's knowledge of electrical formulas into algebraic concepts and trigonometric functions as they apply to power production, magnetic circuitry, generators and three-phase motors. This course meets four hours per week for 15 weeks.

ELTR 113—Electrical Trades Blueprint Reading I (4 cr)

(Prerequisite: ELTR 102 and 104) Basic instruction is provided in reading and interpreting blueprints and specifications. Emphasis is on terminology, symbols, notations, scaling, dimensioning and basic blueprint drawing techniques. Construction methods, materials and structural support of residential, commercial and industrial buildings also are covered. This course meets four hours per week for 15 weeks.

ELTR 114—Electrical Theory II (4 cr)

(Prerequisite: ELTR 102 and 104) The fundamentals of electricity are applied to the design and installation of residential and light commercial electrical circuitry. This course covers the application of the National Electrical Code and local codes and regulations regulating the installation of branch circuits, services, feeders, temporary services and associated materials and equipment used. This course meets four hours per week for 15 weeks.

ELTR 115L—Residential Wiring Lab (3 cr)

(Prerequisite/corequisite: ELTR 106 and 114) The fundamentals of electricity are applied to the actual installation of residential and light commercial circuitry. This lab course covers safety, tools, materials, devices, single pole switches, receptacles, overcurrent protection, three and 4-way switch circuits, pilot switches, low voltage lighting, door chimes, dryer and range receptacles and swamp coders and application of the National Electrical Code. This course meets 15 hours per week for seven and one-half weeks

ELTR 116L—Residential Services (3 cr)

(Prerequisite/corequisite: ELTR 114 and 115) This lab course allows students to study and build residential services, install circuit panels, cut and thread rigid conduit, hand bend and install EMT conduit and adhere to the National Electrical Code. This course meets 15 hours per week for seven and one-half weeks.

'ELTR 150—Residential Wiring Circuitry (2 cr)

This course provides instruction in the interpretation, design, and wiring of common residential switch, receptacle and related circuitry. This theory class meets two hours per week for 15 weeks.

'ELTR 160—Conduit Hand Bending Fundamentals (1 cr)

This course provides instruction in the computation and placement of conduit hand benders to correctly bend and install conduit systems. This theory/lab course meets three and one-half hours per week for 15 weeks.

'ELTR 171L—Pole Climbing (1 cr)

Instruction is provided in safety, proper use of equipment, climbing and maneuvering techniques, and the proper use of ladders on poles and span lines. This lab course meets two and one half hours per week for 15 weeks.

ELTR 202—Electrical Trades Blueprint Reading II (4 cr)

(Prerequisite: ELTR 113) Advanced instruction in reading blueprints and specifications is provided. The blueprints include transformers, feeders distribution panels, subfeeder panels, lighting circuits, motors and controllers, signal systems and power requirements. This course meets four hours per week for 15 weeks.

ELTR 203—Electrical Trades Theory III (4 cr)

(Prerequisite: ELTR 112, 113, 114, 115L, 116L) This lecture/theory class introduces students to the commercial/industrial aspects of electrical safety, tools, materials, power distribution systems, services, hazardous locations, intrusion/fire alarm systems in accordance with the National Electrical Code. This course meets four hours per week for 15 weeks.

ELTR 204—Electrical Motor Control Theory (4 cr)

(Prerequisite: ELTR 112, 113, 114, 115L, 116L) This lecture/theory class introduces students to the symbology and method of interpreting and drawing electro mechanical motor control circuitry. NEMA standards are studied in detail. This class meets four hours per week for 15 weeks.

ELTR 205L—Industrial Motor Control Lab (3 cr)

(Prerequisite: ELTR 112, 113, 114, 115L, 116L) This lab course covers safety, electromechanical relay-type motor control, momentary push button switches, limit switches, proximity switches, pneumatic timers, forward/reverse starters, three-phase motors, and National Electrical Code requirements. This course meets 15 hours per week for seven and one-half weeks.

ELTR 206L—Industrial Power Distribution (3 cr)

(Prerequisite: ELTR 112, 113, 114, 115L, 116L) This lab covers safety; conduit bending using mechanical and hydraulic benders; cutting and threading of rigid conduit using power threaders; use of knock-out punches; use of hammer drills; use of powder actuated fasteners; drop-in anchors; cable installation, cutting, splicing, and termination; wire pulling; and the application of the National Electrical Code. This course meets 15 hours per week for seven and one-half weeks.

ELTR 211L—Electrical Trades Theory/Lab IV (12 cr)

(Prerequisites: ELTR 202, 203, 204L, 205L, 206L) This course is an advanced study of motor control circuitry. Included are solid-state devices and a comparison between magnetic control circuitry and state-of-the-art equipment. This course meets 25 hours per week for 15 weeks.

¹ELTR 250—Industrial Motor Control Circuitry (2 cr)

This course provides instruction in the design, interpretation, drawing and installation of electromechanical relay type motor controls in accordance with the National Electrical Code. This theory course meets two hours per week for 15 weeks.

'ELTR 255—Industrial PC Motor Control (3 cr)

This course provides instruction in the operation of Programmable Logic Controllers, interpretation of PLC logic diagrams, and the installation and programming of PLC systems in accordance with the National Electrical Code. This combination theory/lab course meets five hours per week for 15 weeks.

'ELTR 260—Fiber Optical Cable Installation (2 cr)

(Prerequisite: ELTR 106) This theory/lab course introduces the installation of fiber optical cable in various systems. Emphasis is placed on proper installation and termination. This theory course meets two hours per week for 15 weeks.

Environmental Protection Technology

EPT 111-Environmental Protection Technology I (4 cr)

(Prerequisites: Minimum Placement Test Scores of 9-12 in BOTEL and 31-Part 1 in Math; corequisite: BIO 111) This course is an introduction to environmental protection methods and their ecological basis. All major areas of environmental concern are covered including air, water, soils and food sanitation.

EPT 101-Emergency First Aid Response (1 cr)

This course presents training in Red Cross standard first aid and community cardiopulmonary resuscitation. This is an introductory course stressing immediate care and recognition of life-threatening injuries and illnesses. Instruction is also provided in hazardous materials and toxicology. Emphasis is on emergency temporary help in order to preserve life.

EPT 112-Emergency Preparedness and Response Training (2 cr)

This course offers training in hazardous waste management operations and emergency responses.

EPT 173-Water Quality Protection (3 cr)

This course teaches the student to identify, test, troubleshoot and repair backflow prevention assemblies. A minimum of 50 percent of class time is spent in the lab working with assemblies. Students spend time in the laboratory testing and troubleshooting assemblies. Additionally, students will learn about water distribution systems, and basic hydraulics.

EPT 211L—Environmental Protection Technology II/Lab (4 cr)

(Prerequisite: EPT 111) Technical, financial and legal aspects of environmental protection technology are explored. An orientation is given in toxicological concerns and biological waste management. Students are given an opportunity to work with hazardous material equipment. Students will also practice hazardous material incident response procedures. In addition, practice is provided in development and maintenance of environmental protection programs.

EPT 212-Energy and Waste Management (3 cr)

(Prerequisite: PHYS 102 and MATH 120) This course provides an orientation to energy and waste management in systems. Students learn to assess energy requirements through audits. Cost effective energy conservation techniques are emphasized. Instruction is provided in waste reduction and control through recycling, conservation, reuse, recycling, waste pretreatment and safe disposal.

'EPT 213—Occupational Safety (3 cr)

Introduction is provided to a variety of topics in current safety research and practices. Students are instructed in safety principles and standards. Basic safety concepts and monitoring procedures are emphasized culminating in laboratory and classroom inspection visits and projects that actively contribute to the T-VI safety program effort. An introduction to the Occupational Safety and Health Act (DSHA) regulations is included. This course meets three hours per week for 15 weeks.

EPT 215—Environmental Protection Instrumentation (3 cr)

(Prerequisite: EPT 111, 173, 213, 211L, MATH 120 and EPT 232 or AUTC 172) This course covers the use of volt/ohm meter, amp meter, digital vs. analogue, scaling, gauge reading, zero, span, parallax, signal noise, calibration curves, signal delays, electric vs. gas zero, signal averaging and strip chart equipment. Operation and calibration of the following instruments are included: pressure gauges, pH meter, conductivity meter, spectrophometer, dissolved oxygen meter, gas chromatograph, turbidimeter, gas testing equipment, calorimeter carbon monoxide, ozone meters, radiation instrumentation and noise meters, light meters, gas flow meters and pyrometers.

EPT 232-Air Quality Protection (1 cr)

This course provides training in the fundamentals of vehicle pollution control. The course will also cover city, state, and federal rules and regulations governing air pollution, general and point-source emissions and standard air pollution control methods.

Fire Science

FS 102-Fire Service Organization (3 cr)

(Prerequisite: Minimum Placement Test Scores of 9-12 in BOTEL and 31—Part 1 in Math) Operational definitions, types of organizations, fire department management techniques and governmental impact on fire service delivery, emergency management and future trends in fire protection are covered.

FS 103-Introduction to Fire Science (2 cr)

(Prerequisite: Minimum Placement Test Scores of 9-12 in BOTEL and 31—Part 1 in Math) This course includes history of fire service, careers in fire protection, physical agility and fitness requirements, public and private fire protection organization, behavior and chemistry of fire.

FS 111—Fire Prevention (3 cr)

This course presents basic principles of fire prevention, public fire safety education, protection provided by alarm and sprinkler systems, and code development and adoption procedures.

FS 112—Building Construction (3 cr)

The student is introduced to building construction with emphasis on structural elements, fire spread in buildings, fire loading, and safe fire department operations in different construction types.

FS 201-Fire Protection Systems (3 cr)

The design and operation of fire protection systems are covered including water distribution, detection, alarm and watchman services, protection systems for special hazards, carbon dioxide, dry chemical, foam and water spray systems.

FS 202-Managing Community Fire Protection (3 cr)

(Prerequisite: FS 102 or permission of the instructor) This course includes risk assessment, resource management, measuring and evaluating productivity, legal aspects of emergency service delivery, principles of employee supervision, and the changing mission and role of the fire service in the community.

FS 203-Hazardous Materials (3 cr)

Students learn definitions, recognition and legal aspects of response to hazardous material incidents. Basic hazardous materials scene management and strategies for resolution of incidents including scene restoration are included.

FS 211-Incident Command and Control (3 cr)

Basic principles of firefighting strategies, fire ground operations, general and special emergencies, incident command and communication, and multijurisdictional incidents as they involve fire service response are discussed in this course.

FS 212-Fire Investigation (3 cr)

The student is introduced to the techniques of determining fire origin and cause. Topics include fire scene search, legal aspects, and arson problems including motives and prevention strategies.

FS 213-Industrial Fire Protection (3 cr)

This course covers lifesaving procedures, special firefighting equipment, salvage, and prevention of rekindling. Problems in storage, handling and manufacture of hazardous materials commonly found in industry also are reviewed.

FS 214—Facilities Inspection (3 cr)

This course covers testing of fixed fire suppression and alarm systems, methods of inspection, report writing, enforcement and legal aspects, model building and fire codes, zoning and plan review problems.

FS 296—Special Topics (1-6 cr)

This course includes an in-depth study of problems and the advanced techniques that firefighter experts use in responding to them.

Food Service Management

FSMG 102—Operations Management (3 cr)

Students learn skills in basic functions of supervision and management, sanitation, quality control, purchasing, record keeping, inventory control, storing and issuing, and safety (Certificate CPR/Standard First Aid) to advance into supervision and management. This course meets three hours per week for 15 weeks.

FSMG 103-Human Relations (3 cr)

Students learn skills in customer relations, interviewing and training, delegation, discipline, communication and human relations. This course meets three hours per week for 15 weeks.

FSMG 104-Marketing/Cost Control Management (3 cf)

The students learn skills in nutrition, menu planning, sales promotion, cost controls and food production to advance into supervision and management. This course meets three hours per week for 15 weeks.

¹FSMG 170L—Advanced Food Service Management (3 cr)

(Prerequisite: FSMG 102, FSMG 103 and FSMG 104) This combination lab/theory course emphasizes the use of computers in the food service industry. The student learns computer skills, such as Word Perfect and Lotus 1-2-3 to advance into food service management and supervision. This course meets five hours per week for 15 weeks.

FSMS 171L-Food Service Nutrition (3 cr)

This course is a study of food and nutrition as they pertain to the food service industry. The student is introduced to the digestive system, diet control, and vitamins and nutrients. This combination theory/lab course meets five hours per week for 15 weeks.

FSMG 198—Supervised Work Experience (4 cr)

The student is employed at an approved job-related work station and applies management theory learned in FSMG 102, 103 and 104 via goals and objectives.

Machine Tool Technology

MATT 103-Machine Tool Technology Theory I (2 cr)

(Prerequisite: Minimum lacement Test Scores of 7-8 in BOTEL and 35—Part 1, 6—Part II, and 2—Part III in Math) This lecture/theory course introduces students to the basic elements of the Machine Tool Technology industry. Information pertaining to safety, terminology, machine construction, cutting tool physics, and abrasives is covered. Instruction is also provided in basic theory of drill presses, pedestal grinders, engine lathes, surface grinders, benchwork, measuring tools, hand tools, and milling machines. This course meets for two hours a week for 15 weeks.

MATT 102-Machine Tool Technology Math I (2 cr)

(Prerequisite: Minimum Placement Test Scores of 7-8 in BOTEL and 35-Part 1, 6-Part II. and 2-Part III in Math) This course begins with a review of basic math including whole numbers, fractions, and decimals. Instruction is provided in basic geometry, basic algebra and formula manipulation, ratio and proportion, Pythagorean formula, basic trigonometry, and calculator usage. This course meets two hours a week for 15 weeks.

MATT 104-Machine Tool Technology Blueprint Reading I (2 cr)

(Prerequisite: Minimum Placement Test Scores of 7-8 in BOTEL and 35—Part I, 6—Part II. and 2—Part III in Math) This course begins with an introduction to the interpretation of shop drawings. Instruction is provided in sketching, orthographic projection, isometric drawings, notes, symbols, dimensioning, and an overview of geometric tolerancing and dimensioning. This course meets two hours a week for 15 weeks.

MATT 105L-Engine Lathe Principles (3 cr)

(Prerequisite/corequisite: MATT 102, 103, 104) This lab course covers basic engine lathe operations. Instruction is offered in safety, nomenclature, speeds and feeds, use of three jaw and four jaw chucks, turning, facing, shouldering, grooving, chamfering, and drilling on center. Single point threading is also introduced. This course meets for seven and one half hours a week for 15 weeks.

MATT 106L-Milling Machine Principles (3 cm)

(Prerequisitel corequisite: MATT 102, 103, 104) This lab course covers basic horizontal and vertical milling machine operations. Instruction is offered in safety, nomenclature, speeds and feeds, use of cutters, drilling, milling, tapping, reaming and slotting. This course meets seven and one half hours a week for 15 weeks.

MATT 107L—Individual Problems I (3 cr)

(Prerequisite/corequisite: MATT 102, 103, 104, 105, 106) This lab course introduces drill press, surface grinding, and combines skills obtained in MATT 105 and MATT 106. Instruction is offered in more advanced engine lathe and milling machine operations. Measurement and inspection is covered in more detail. This course meets for seven and one half hours a week for 15 weeks.

MATT 111L—Machine Tool Technology Theory/Lab II (12 cr)

(Prerequisite: MATT 102, 103, 104, 105L, 106L, 107L) This course includes instruction in advanced engine lathe and milling machine operations. Turret lathe operation and introductory exposure to C/N/C machining is covered. The theory portion deals with advanced measurement, single point threading, tooling applications, use of the Machinery's Handbook, and advanced machining techniques. Carbide tooling is also introduced. This class meets 20 hours a week for 15 weeks.

MATT 112—Machine Tool Technology Math/Blueprint Reading II (3 cr)

(Prerequisite: MATT 102, 103, 104, 105L, 106L, 107L) This class includes a continuation of algebra with emphasis on machine related problems, geometry, and an introduction to trigonometry as applied to the trade. The Geometric Tolerancing and Dimensioning system is also covered in this course. This class meets five hours a week for 15 weeks.

MATT 113—Numerical Control Programming I (3 cr)

(Prerequisite: MATT 102, 103, 104, 105L, 106L, 107L) This course provides instruction in the word address format or "G" code programming languages. Students learn computer skills necessary to edit and prepare tapes for the C/N/C equipment. This class offers instruction on both a light duty C/N/C vertical milling machine and a turning center. This class meets five hours a week for fifteen weeks.

'MATT 171-Precision Measurement (3 cr)

This course is an introduction to basic measurement principles and techniques. Students are instructed in the care, calibration, uses and applications of outside micrometers, inside micrometers, depth micrometers, vernier calipers, indicators and other measuring equipment specific to their majors. This combination theory/lab course meets five hours per week for 15 weeks.

'MATT 173—Machine Tool Technology Skills Improvement (3 cr)

This course is for students wishing to acquire basic knowledge or upgrade skills in the machine tool industry. This structured theory/lab course offers instruction in safety, hand tools, elementary lathe and mill, drill press and bench work. The class also covers basic precision measurement, blueprint reading and shop math. This class meets for five hours per week for fifteen weeks.

'MATT 174-Advanced Machine Tool Technology Skills Improvement (3 cr)

(Prerequisite: MATT 173) This course offers advanced instruction materials introduced in MATT 173, including advanced lathe and mill work and surface grinding. More advanced precision measuring techniques, blueprint reading and shop math are covered. This course meets for five hours per week for fifteen weeks.

MATT 201L—Machine Tool Technology Theory/Lab III (12 cr)

(Prerequisite: MATT 111L, 112, 113) This advanced lab/theory class includes instructions in advanced mill work including: boring, broaching, rotary tables, indexing devices, and complex setups. Advanced lathe work includes boring, internal threading, pressure padding and use of soft jaws. Students become involved with advanced setups and operations of C/N/C equipment. The theory portion covers the above with the addition of a study of metallurgy which includes tooling applications, heat treatment, properties of metal, machinability of metals, manufacturing of steels and other metals, and non-destructive testing. This class meets 20 hours a week for 15 weeks.

MATT 213—Numerical Control Programming II (3 cr)

(Prerequisite: MATT 113) This class provides advanced instruction in numerical control programming. Subjects include macros, sub-routines, loops, canned cycles, and LAPS. The programming of the machining center as well as advanced programming on the previously covered equipment is taught. Students receive training in interactive graphic programming, and CAD/CAM systems. This course meets five hours a week for 15 weeks.

'PF 100—Physical Fitness (1 cr)

(Prerequisite: Certificate documenting individual's health/physical condition signed by a physician) This course offers individuals a fitness program based on an assessment that includes blood pressure, percent of body fat, girth measurements, a test of cardiovascular endurance, and strength and flexibility tests. The course is self-paced with an evaluation at the end of 15 weeks to determine a grade for the course.

Plumbing

PLMB 103—Safety and Tools Theory (4 cr)

(Prerequisite: Minimum Placement Test Scores of 7-8 in BOTEL and 31—Part I and 6—Part II in Math) This course stresses the importance of safety in the workplace. Hand and power tools are covered including the 300 and the 535 Ridgid Threading Machines. Welding is also covered. This class meets for two hours a week for 15 weeks.

PLMB 103L—Safety and Tools Lab (2 cr)

(Prerequisite/corequisite: PLMB 103) This lab introduces the student to the proper and safe method to use the various hand and power tools found in the plumbing trade. This class meets for five hours per week for 15 weeks.

PLMB 104—Plumbing Mathematics (1 cr)

(Prerequisite: Minimum Placement Test Scores of 7-8 in BOTEL and 31—Part 1 and 6—Part II in Math, PLMB 103) This course covers basic arithmetic, whole numbers, and fractions and decimals. Volumes and weight measurements are also covered. This course meets one hour per week for 15 weeks.

PLMB 105—Basic Plumbing Theory (2 cr)

(Prerequisite/corequisite: PLMB 103) The correct procedure for installation of plastic, steel, cast iron, and copper pipe is covered. The correct method of installation, addition, repair, replacement or maintenance of any plumbing and/or gas piping system. This class meets four hours per week for seven and one-half weeks.

PLMB 105L—Basic Plumbing Lab (2 cr)

(Prerequisite/corequisite: PLMB 103, 103L, 105) Identification of plumbing fittings and pipe nomenclature is covered. The correct procedure in soldering copper pipe, threading and cutting iron pipe, flaring copper pipe and making diagonal offsets is covered. This class meets for 10 hours a week for seven and one-half weeks.

PLMB 106—Plumbing Blueprint Reading (1 cr)

(Prerequisite/corequisite: PLMB 105, 105L) This course covers the introduction to blueprint reading. Also covered is instruction in sketching and reading blueprint working drawings for residential work. This class meets for one hour a week for 15 weeks.

PLMB 107—Plumbing Systems Theory (2 cr)

(Prerequisite/corequisite: PLMB 103, 104, 105) This class covers the proper design of drainage and vent systems, sprinkler systems and water supply systems. Also covered are the correct methods to rough in a system and top out of an installation. Installation of DWV, cast iron, ABS and PVC vent systems in combustible construction is also covered. This class meeets four hours a week for seven and one-half weeks.

PLMB 107L—Plumbing Systems Lab (2 cr)

(Prerequisite/corequisite: PLMB 103L, 105L) This lab course introduces the student to the correct procedure for the installation, repair and service of drainage and vent, sprinkler and water supply systems. Rough-ins and top outs are also covered. This course meets for 10 hours a week for seven and one-half weeks.

PLMB 111L—Plumbing Theory/Lab II (12 cr)

(Prerequisites: PLMB 103, 103L, 104, 105, 105L, 106, 107, 107L) This course emphasizes design, layout and installation of water, soil and vent lines; related fixtures and fittings; inspecting and testing systems; soldering; maintenance and repair of plumbing; solar systems; yard irrigation; swimming pool, hot tubs and spa installation and service. This course meets 20 hours per week for 15 weeks.

PLMB 112—Plumbing Mathematics/Blueprint Reading II (3 cr)

(Prerequisite: PLMB 104, 106) Course content includes a detailed study of piping drawings, isometric pipe layouts, interpreting residential and light commercial blueprints, application of plumbing codes, knowledge of terms, and planning and coordinating the job. This course meets five hours per week for 15 weeks.

'PLMB 170-Energy Management/Solar Applications (3 cm)

This course is for students interested in management of the residential energy package. Instruction is provided in how life styles, design and orientation conserve natural resources. Emphasis is on the selection, installation, maintenance and repair of solar equipment as related to heating water and air. This combination theory/lab course meets five hours per week for 15 weeks.

'PLMB 172—Backflow Prevention (3 cr)

This course teaches the student to identify, test, troubleshoot and repair backflow prevention assemblies. A minimum of 50 percent of class time is spent in the lab working with assemblies. Successful completion of the course qualifies the student to become a certified backflow prevention assembly tester. This combination theory/lab course meets five hours per week for 15 weeks.

PLMB 174—Heating Control Circuitry (3 cr)

This course includes installation and troubleshooting of heating control circuits. Control theory, terminology and symbols are covered. Instructional emphasis in on electrical control devices from various manufacturers. Also included are the reading and developing of wiring diagrams and line schematics. This combination theory/lab course meets five hours per week for 15 weeks.

¹PLMB 175—Journeyman Preparation (3 cr)

This class is designed for persons interested in becoming a journeyman plumber and natural gas fitter in New Mexico. Licensing requirement rules and regulations, the Uniform Plumbing Code. This theory course meets three hours per week for 15 weeks.

Quantity Foods

OUFD 102-Food Service Mathematics (3 cr)

(Prerequisite/corequisite: QUFD 103) Basic arithmetic for sales, portioning and costing of food products is covered. Students also learn how to use cash registers. This course meets three hours per week for 15 weeks.

QUFD 103—Quantity Food Theory I (2 cr)

(Prerequisite: Minimum Placement Test Scores of 5 in BOTEL and 24—Part 1 in Math) This course provides instruction in preparing meats, vegetables, soups, sauces, sandwiches, salads and breakfast foods. Emphasis is placed on cost, nutrition, sanitation, safety, tools and equipment, cooking methods and techniques, speed and efficiency, and cafeteria line operation. This course meets two hours per week for 15 weeks.

QUFD 104L—Buffet Procedures (2 cr)

(Prerequisite/corequisite: QUFD 102 and 103) This course provides instruction throughout the proper/standard instructional setup for front of the house serving techniques, cashiering and product tracking. This course meets five hours per week for 15 weeks.

OUFD 105L-Salad and Pantry (2 cr)

(Prerequisite/corequisite: QUFD 102 and 103) The teaching of assorted salads, dressings, sandwiches, soups, vegetables and condiments preparation are conducted during this session. This course meets five hours per week for 15 weeks.

OUFD 106L—Dinner (2 cr)

(Prerequisite/corequisite: QUFD 102 and 103) Entree preparation of various types along with sauces that complement are stressed during this session. The course ranges from breakfast, lunch and special assigned main offerings for the varied experience needed for the student's awareness. This course meets five hours per week for 15 weeks.

¹Elective course

QUFD 107L—Fry (2 cr)

(Prerequisite/corequisite: QUFD 102 and 103) Entree preparation of various types are stressed during this session. Emphasis is stressed in all preparations of saute, deep fat, and table side frying for the restaurant industry. This course meets five hours per week for 15 weeks.

QUFD 112—Quantity Food Theory II (2 cr)

(Prerequisites: QUFD 102, 103, 104L, 105L, 106L, 107L) Students learn methods of cooking stews, fricassees, garnishes, sauces and other dinner items. Also covered are herbs and spices, salad preparation, use of recipes, application of costing procedures, pantry work, restaurant service and operation, and customer service. This course meets two hours per week for 15 weeks.

QUFD 113L—Dining Room Skills (1 cr)

(Prerequisite: QUFD 102, 103, 104L, 105L, 106L, 107L) The student will learn to set tables, napkin fold, service customers, cashier and marlage a service staff in the dining room. This course meets two and one/half hours per week for 15 weeks.

QUFD 114L—Cold Preparation (1 cr)

(Prerequisite: QUFD 102, 103, 104L, 105L, 106L, 107L) The students will learn basic salad dressing preparations, salad preparations, desert preparations, and skills such as proper use of knives for preparation techniques. This course meets two and one/half hours per week for 15 weeks.

QUFD 115L—Stocks and Sauces—Sous Chef (2 cr)

(Prerequisite: QUFD 102, 103, 104L, 105L, 106L, 107L) The students will learn how to prepare stocks. They will learn the basic sauces and derivations of these sauces. This course meets five hours per week for 15 weeks.

QUFD 116L-Entree (Meat Preparation) Line Cook (2 cr)

(Prerequisite: QUFD 102, 103, 104L, 105L, 106L, 107L) The student will learn how to prepare meats and chickens in the basic techniques of cooking. This course meets five hours per week for 15 weeks.

QUFD 117L—Entree (Fish Preparation) Line Cook (2 cr)

(Prerequisite: QUFD 102, 103, 104L, 105L, 106L, 107L) The student will learn how to prepare fish in the basic techniques of cooking. This course meets five hours per week for 15 weeks.

QUFD 118L—Garde Manger—Competition (2 cr)

(Prerequisite: QUFD 102, 103, 104L, 105L, 106L, 107L) The students learn the techniques of garnishing, marketing and merchandising foods. They learn to prepare food items for chef competition. This course meets five hours per week for 15 weeks.

Sportscraft/Small Engine Mechanics

SCSE 102—Math/Basic Electricity (3 cr)

(Prerequisite: Minimum Placement Test Scores of 7-8 in BOTEL and 31—Part I in Math) The student learns and applies basic math principles as they relate to measuring tools, test equipment graphs and schematics. The theory of mechanical power, basic electricity principles, related terminology, and electrical component identifications are also covered. Students are introduced to electrical system troubleshooting and fault analysis. This course meets three hours per week for 15 weeks.

SCSE 103—Sportscraft/Small Engine Theory I (3 cr)

(Prerequisite: Minimum Placement Test Scores of 7-8 in BOTEL and 31—Part I in Math) This lecture/theory course introduces students to all phases of sportscraft/small engine industry. Basic information pertaining to safety, environmental issues, hand tools, measuring devices and test equipment are covered. Engine service, teardown, inspection, measuring, and rebuilding procedures are examined on both two- and four-stroke cycle gasoline engines found in motorcycles, marine products and outdoor power equipment. Carburetor fuel system theory is also examined during this lecture course.

SCSE 104L—Engine Service and Overhaul Lab Four-Stroke Cycle (3 cr)

(Prerequisite/corequisite: SCSE 102 and 103) Students learn engine teardown procedures, inspections of engine components, measuring, and wear and failure analysis along with special tools and test equipment needed for engine service. This course meets seven and one/half hours per week for 15 weeks.

SCSE 105L-Engine Service and Overhaul Lab Two-Stroke Cycle (2 cr)

(Prerequisitelcorequisite: SCSE 102 and 103) Students learn engine teardown procedures, inspection of engine components, measuring, and wear and failure analysis along with special tools and test equipment needed for engine service. This course meets five hours per week for 15 weeks.

SCSE 106L—Fuel Systems (2 cr)

(Prerequisite/corequisite: SCSE 102 and 103) This course covers the identification, diagnosis, inspection and repair of carburetion and fuel system components found on motorcycle, marine outboards, and outdoor power products. This course meets five hours per week for 15 weeks.

SCSE 107—Management Skills (1 cr)

(Prerequisite/corequisite: SCSE 102 and 103) Students attending this course will learn vital customer and employee relations skills along with proven shop management practices. Inventory control is addressed, and how to use repair and parts manuals is covered. This course meets one hour per week for 15 weeks.

SCSE 111L—Sportscraft/Small Engine Mechanics Theory/Lab II (12 cr)

(Prerequisites: SCSE 102, 103, 104L, 105L, 106L, 107) This course teaches the student how to diagnose and safely repair various types of clutches, transmissions, transaxles and final drives found on outdoor power products, motorcycles and outboard marine engines, as well as disc and drum type brake systems. This course meets 20 hours per week for 15 weeks.

SCSE 113—Transportation Electronics (3 cr)

(Prerequisites: SCSE 102, 103, 104L, 105L, 106L, 107), This course provides the information required to test and replace malfunctioning electronic components. The theory of solid state devices, principles of electronics and interpretation of circuit diagrams are included. Lab experiments cover voltage rectifiers, full wave rectification, transistors, thyristors, integrated circuits, operational amplifiers and timing circuits. This course meets five hours per week for 15 weeks.

SCSE 170—Sportscraft Skills Improvement (3 ct)
This basic theory/lab course offers instruction in the diagnosis and repair of small aircooled engines. Safety, nomenclature, hand tools, ighition systems, cooling and lubricating systems, and engine overhaul are included in this course. Instruction is also given in engine theory, schematic reading, and shop math. This course meets for five hours per week for fifteen weeks.

SCSE 201L—Sportscraft/Small Engine Mechanics Theory/Lab III (15 cr) (Prerequisites: SCSE 111L and 113) This course focuses on the safety, theory, diagnosis and repair of electrical components, fuel injections, carburetion and exhaust systems. Primary emphasis is placed on diagnostic skills. Students are also introduced to hydraulic theory. This course meets 25 hours per week for 15 weeks.

Truck Driving

TRDR 104L—Truck Driving Theory/Lab (15 cr)

(Prerequisite: Minimum Placement Test Scores of 9-12 in BOTEL and 35-Part I in Math) The truck driving class is broken up into three sections in one term. The three sections are: the classroom; driving range; and over-the-road. The student must successfully pass each section to advance to the next one. The instruction consists of the fundamentals of control systems; vehicle inspection; shifting, backing, coubling and uncoupling; speed and space management; hazard perception; emergency maneuvers; cargo handling, protection and documentation; hours-of-service requirements; accident procedures; trip planning; preventive maintenance; minor repairs; reporting equipment malfunctions; public and employer relations; defensive driving; hazardous materials; first aid and CPR; and state and federal regulations governing the professional truck driver. This course meets 25 hours per week for 15 weeks.

¹TRDR 111—Materials Handling (3 cr)

This combination theory/lab course provides basic forklift/hand truck operation and how to solve basic materials handling problems. Instruction also covers basic packaging techniques. This course meets five hours per week for 15 weeks. The first seven and onehalf weeks covers lift truck safety and operation. The second seven and one-half weeks covers handling of materials.

Welding

WELD 102—Welding Mathematics I (2 cr)

(Prerequisite: Minimum Placement Test Scores of 5 in BOTEL and 31—Part 1 in Math) This lecture/theory course begins with basic arithmetic and continues with fractions, decimals, surface and direct measurements, graphs, charts, and charts. Payroll calculations are also studied in this course. This class meets for two hours a week for 15 weeks.

WELD 103—Welding Metallurgy Theory I (2 cr)

(Prerequisite: Minimum Placement Test Scores of 5 in BOTEL and 31—Part 1 in Math)
This lecture/theory course offers instruction in welding safety, general tools and
equipment, common gases and their properties, welding materials, welding joints,
manufacturing processes, structure and properties of metals. Further instruction is offered
in oxyacetylene processes and shielded metal-arc welding. The effects of temperature
changes in welding, effects of alloying elements, variations of fluxes, and slags and gases
for shielding are covered in this class. This class meets for two hours a week for 15
weeks.

WELD 104—Welding Blueprint Reading I (2 cr)

(Prerequisite: Minimum Placement Test Scores of 5 in BOTEL and 31—Part 1 in Math) This lecture/ theory course offers instruction in basic drawing interpretation, welding symbols, terminology, and details of fittings as applied to the welding area. This course meets two hours per week for 15 weeks.

WELD 105L—Oxyacetylene Welding Principles (3 cr)

(Prerequisite/corequisite: WELD 102, 103, 104) This course offers instruction in safety, use of general tools and use of oxyacetylene equipment. Instruction is provided in the use of the thermal cutting torch and the techniques of brazing. Various positions are covered as well as tubing welding, welding of alloys, and fusion welding. This course meets for seven and one/half hours a week for 15 weeks.

WELD 107L—Introduction to Arc Welding (3 cr)

(Prerequisite/corequisite: WELD 102, 103, 104) This basic course in shielded metal-arc welding (SMAW) offers introductory instruction in electric arc welding. Instruction is in welding safety, the welding circuit, welding symbols, types of welding machines, beading, buildups and various types of joints. This course meets seven and one/half hours a week for 15 weeks.

WELD 111L-Welding Metallurgy Theory/Lab II (12 cr)

(Prerequisites: WELD 102, 103, 104, 105L, 106L) This course provides advanced instruction in shielded arc and gas metal-arc welding, and beginning instruction in gas tungsten-arc welding. Students learn about filler metal for joining iron, steel and nonferrous metal, shrinkage and distortion in weldments, preheating and postheating, difficulties and defects in weld, welding carbon and alloy steels, welding tests, conversion factors and symbols, weights and properties. This course meets 20 hours per week for 15 weeks.

WELD 112—Welding Mathematics/Blueprint Reading II (3 cr)

(Prerequisite: WELD 102, 103, 104, 105L, 106L) This course offers blueprint reading instruction in which the student reads commercial construction and fabrication drawings, complex detail section and assembly drawings related to the welding field. Rules, formulas, ratio, proportion, volume and right-angle calculations also are covered. This course meets five hours per week for 15 weeks.

'WELD 170—Welding Skills Improvement (3 cr)

This class includes instruction in safety practices, general tools and equipment, sources of heat, operational procedures, metals and their properties, and applications of oxyacetylene and arc welding. Instruction is geared for the specific needs of all majors. This combination theory/lab course meets five hours per week for 15 weeks.

WELD 171—Advanced Welding Skill Improvement (3 cr)

This course provides instruction in advanced welding processes. Mig and tig welding and other processes such as plasma arc, resistance, flux core, carbon and submerged arc welding are included. This combination theory/lab course meets five hours per week for 15 weeks.

WELD 201L—Welding Metallurgy Theory/Lab III (15 cr)

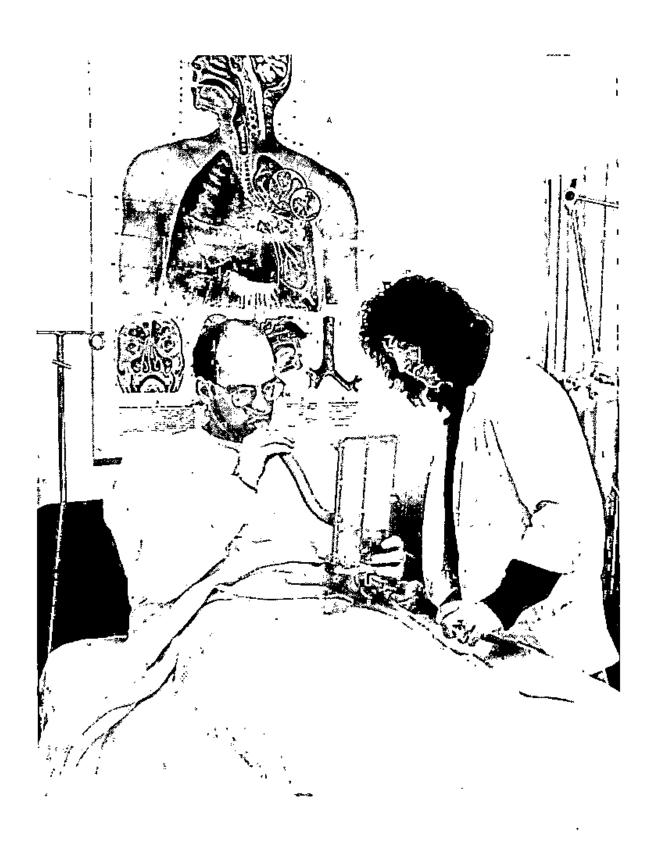
(Prerequisites: WELD IIIL and II2) Working speed and proficiency are emphasized through various practical fabrication and repair assignments. Instruction is provided in basic pipe welding and layout, materials testing and industrial safety. The course also deals with welding problems; welding processes used for carbon steels, stainless steels, aluminum and pipe; procedures, layout used in fabrication and AWS inspection standard. This course meets 25 hours per week for 15 weeks.

WELD 202—Blueprint Reading III (3 cr)

(Prerequisite: WELD 111L and 112) This lab course teaches development of templets for various types of pipe and fabrication welding, materials estimating, pipe layout and development, pipe and structural print reading, performance of pipe qualification tests for the basic intersections, transferring of measurements from working drawings and blueprints, design considerations, layout and welding related to fabrication. This course meets five hours per week for 15 weeks.

'WELD 296L—Welding Special Topics (1-2 cr)

This flexible course is designed to enable students currently in the welding trade to pursue studies in specialized needs with unique goals. This class also may be taken as an independent or guided study to be used as a refresher course or to sharpen skill prior to certification or recertification exams. Hours are by arrangement.





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- Don Croxton, math instructor, B.S., University of Albuquerque

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- Margaret Ann (Gretta) Hochstatter, Math Instructor, B.S., University of Albuquerque
- Donna Hurtado, Special Services math instructor, B.A., University of New Mexico

William Johns, math and science instructor, M.A., New Mexico Highlands University

Larry Johnson, coordinator for instructional computing, M.A., Lesley College

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M.MATH., University of Waterloo

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Sally Serrels, math instructor, M.A., Columbia Teachers College

Jana Smith; accounting and math instructor, B.S., Southwest Texas State University

Ann Tran, math and English instructor, M.A., University of Chicago

Deloris Watkins, Business Occupations instructor, M.A., University of New Mexico

Phillip Weaver, math instructor, M.A., University of New Mexico

Ester P. Wells, English coordinator, B.Ş.E, University of Santo Tomas

Mary Willingham, math and science instructor, M.A., University of New Mexico

Arts & Sciences

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Business Occupations

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- Cheryl Bartlett, CPA, accounting instructor, B.B.A., University of New Mexico
- David Bency, accounting instructor, B.B.A., New Mexico State University
- Brenda Byerly, secretarial studies instructor, B.S., Illinois State University
- Lois Carlson, CPA, accounting instructor, M.B.A., University of New Mexico
- Priscilla Carrillo, secretarial studies instructor, M.A., University of New Mexico
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- Susie Cutler, secretarial studies instructor, M.A., Webster University
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- Marianne Gardner, secretarial studies instructor, M.S., University of Dayton
- Elmo Gomez, secretarial studies instructor, B.A., University of New Mexico

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- Robert Reeback, legal assistant studies instructor, J.D., University of New Mexico
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- Joe Webster, accounting instructor, B.S., University of Albuquerque
- Maja Whittington, accounting instructor, M.B.A., University of Texas, El Paso
- Anna Wormald, secretarial studies instructor, M.A., University of New Mexico

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- Tamara G. Campbell, RN, nursing instructor, M.S., Boston University
- Charlene Fritts, RN, major instructor, health unit clerk and perioperative nursing, M.A., Webster University
- Richard Gentile Jr., RRT, RCP, program director, M.Ed., University of Houston
- Diane E. Jacobi, RN, nursing instructor, M.S.N., University of New Mexico

- Marion F. LaNoue, RN, nursing instructor, M.S.N., University of New Mexico
- Monya Kmetz, MT, program director, M.A., University of New Mexico
- Helen Dorothy Kopczynski, RN, nursing instructor, M.S.N., St. John's University
- Julie Laybourne, RN, nursing instructor, B.S.N.H., University of Cincinnati
- Marcia Lee, RN, nursing instructor, M.S., University of California, San Francisco

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Carol A. Madden, RN, nursing instructor,
M.S.N., University of New Mexico
Gloria Monek-Kovanis, RN, nursing instructor, M.S.N., Gwynedd Mercy

College

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Ann E. Sims, nursing assistant major instructor, B.S.N., University of New Mexico

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David Clauss, electronics instructor, B.A., City College of San Francisco

Frank Corey, electronics instructor, M.S., University of Norte Dame

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John Fink, data processing instructor, Ph.D, Ball State University

Steven Fraker, architectural/engineering drafting instructor, B.S., Eastern New Mexico University

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- Charles Meuser, electronics engineering instructor, M.A., University of New Mexico
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- Susan Sujka, math/electronics instructor, B.S., New Mexico Institute of Mining and Technology
- James Toler, civil and surveying instructor, M.A., Boston College
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- Thomas Walling, electronics instructor,
 - B.S., University of Southern Maine
- Wesley Wesbrooks, electronics instructor Mary Jane Willis, electronics instructor,
- B.S., Northwestern State University of Louisiana
- Thomas Wright, electronics instructor, B.S., University of Albuquerque
- Charles A. Young, data processing instructor, B.S., University of Arizona

Trades & Service Occupations

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- Earnest Arko, electrical trades instructor, B.A., Highlands University
- Paul Baxter, automotive body repair instructor, B.S., New Mexico State University
- Paul Beck, machine tool technology instructor, B.S., University of New Mexico
- Joe Bowdich, criminal justice instructor, B.S., University of Albuquerque
- Timothy Brown, electrical trades instructor, B.S., Iowa State University
- Thomas Bryant, diesel mechanics instructor
- Glen Bugge, automotive technology instructor, B.S., Illinois State University
- Mary Chambers, fire science instructor, M.A., Duke University
- Ted Chavez, air conditioning, heating and refrigeration instructor, B.S., Southern Illinois University
- Darrell Creel, truck driving instructor, B.A., Western New Mexico University

- James DeMarcus, air conditioning, heating and refrigeration instructor, B.S., Southern Illinois University
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- Rudy Garcia, food service management instructor, B.U.S., University of New Mexico
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- Robert Kho, automotive technology instructor, B.A., California State University
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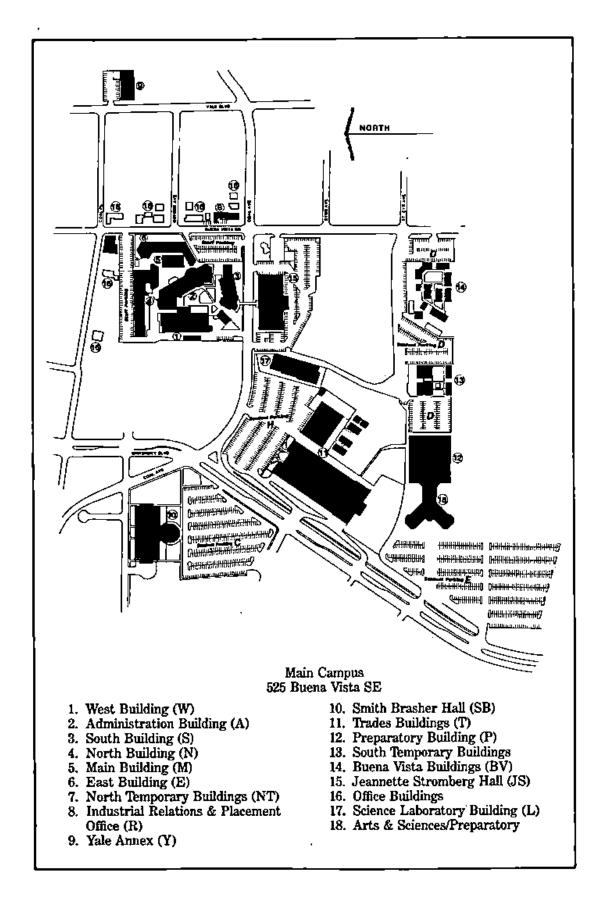
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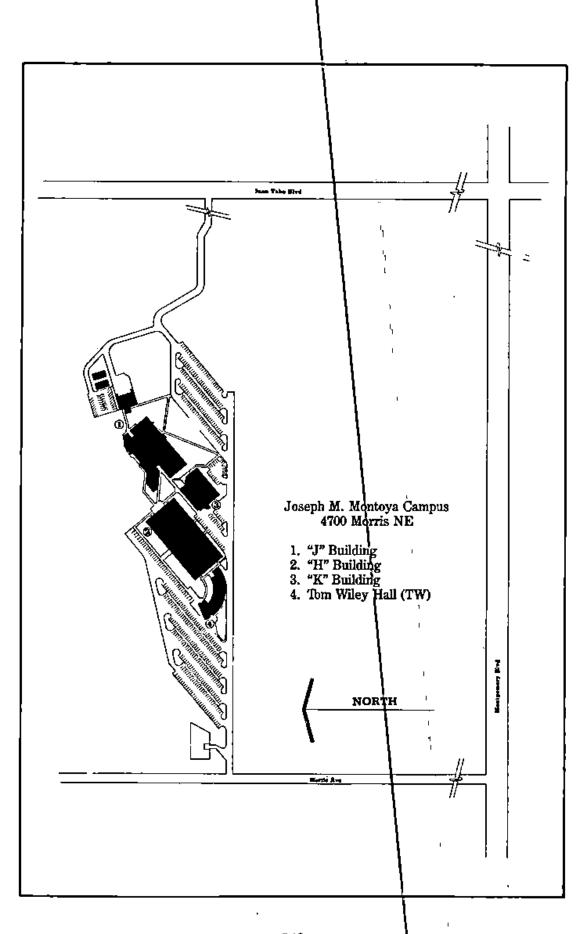
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