

A Community College

Catalog 1994-1995

VOLUME XXIX JULY 1994 ALBUQUERQUE TECHNICAL-VOCATIONAL INSTITUTE

> Main Campus 525 Buena Vista SE Albuquerque, New Mexico 87106-4096

> Joseph M. Montoya Campus 4700 Morris NE Albuquerque, New Mexico 87111-3704

Rio Rancho/Intel Campus State Road 528 and Sara Road Rio Rancho, New Mexico 87124

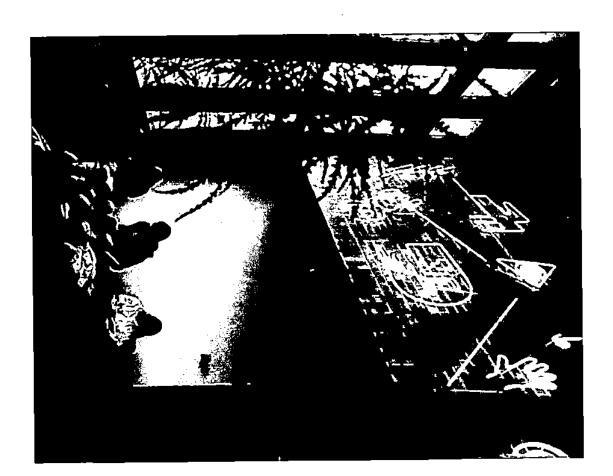
T-VI is an equal opportunity institution.

CONTENTS

Introducing T-VI5	Technologies187
Academic Calendar10	Architectural/Engineering
Graduate Job Placement12	Drafting Technology188
Admission and Registration14	Business Computer Programming
Admission14	Technology196
Registration22	Design Drafting Engineering
New Mexico Residency24	Technology204
Tuition and Fees25	Electronics Engineering
Estimated Expenses31	Technology210
Financial Aid32	Electronics Technology214
Academic Regulations40	Manufacturing Specialist224
Student Services47	Trades & Service Occupations 227
Outreach & Transitional	Air Conditioning, Heating
Programs54	and Refrigeration234
Adult Education54	Automotive Body Repair 238
Developmental Studies63	Automotive Technology242
Arts & Sciences70	Baking246
Liberal Arts71	Carpentry248
Business Occupations99	Commercial Printing251
Accounting103	Construction Technology256
Administrative Assistant 108	Criminal Justice260
Business Administration 113	Culinary Arts263
Court Reporting123	Diesel Equipment Technology 264
Legal Assistant Studies128	Electrical Trades268
Microcomputer Management	Environmental Technology 272
Specialist134	Fire Science276
Pre-Management138	Food Service Management 279
Sales and Cashiering141	Machine Tool Technology 280
Health Occupations143	Mechanical Technology284
Child Development149	Metals Technology287
Health Unit Clerk152	Plumbing289
Medical Laboratory	Quantity Food Preparation 293
Technician154	Small Engine Technology295
Nursing Assistant159	Transportation Technology 297
Practical Nursing161	Truck Driving300
Nursing165	Welding303
Pharmacy Technician172	T-VI Personnel307
Phlebotomy174	Campus Directory324
Respiratory Therapy	Index328
Technician176	
Respiratory Therapist181	

ABOUT THIS CATALOG

The Catalog is the student's official guide to T-VI. Beginning with an introduction that includes t log covers:	<u> </u>
☐ general information about T-VI: a summary of tion about admission, registration, expenses an lations and student services; and	
instructional programs: details about T-VI's course descriptions and requirements for earn	
This Catalog also includes lists of T-VI Governand faculty, as well as maps of the Main, Montoya a campus telephone directory. Other information all the class schedule, which is distributed prior to the admissions offices and instructional depart the Student Handbook, available in campus bothe Student Financial Aid Guide; the Student Job Placement Services Handbooth flyers from instructional departments and other	and Rio Rancho/Intel campuses and out T-VI is published in: o registration for each term in tments at all campuses; bokstores;
The T-VI Catalog is a summary of information complete statement of policies and rules. (Addition Handbook.) Information in the Catalog is subject to Not all programs and classes listed in the Catevery term. If fewer than 12 persons have applied to	al policies are printed in the Student o change. alog are offered at all campuses or begin a program, it may be canceled
that term. After a program begins, no required class rollment, although support classes may be canceled	due to insufficient enrollment.
This Catalog is available in alternative format	from the Special Services office on
Main Campus.	



Introducing T-VI

New Mexico's fastest growing postsecondary school, Albuquerque T-VI is an accredited community college offering courses in a variety of occupational, college transfer, developmental/preparatory and adult education subjects. In 1994–95 T-VI's programs include:

- certificates: full-time programs in 31 business, health, technologies and trades occupations;
- ☐ associate degrees: available in 24 occupational fields and liberal arts;
- ☐ college transfer: courses in 24 liberal arts disciplines transferable for freshman and sophomore credit at four-year institutions;
- developmental studies: remedial, preparatory and developmental classes for students preparing to meet admission requirements at T-VI or other institutions; and
- □ adult education: basic skills, including English, reading and math; preparation for GED exams; English as a second language; and skill-building enrichment clusters.

Other T-VI programs include: special services for students with disabilities; tutoring services and self-paced learning centers; classes at local high schools and other facilities; skills workshops tailored for working people; and support for small business. In addition, T-VI offers custom training programs for local employers.

In 1965 T-VI held its first classes in surplus barracks and a vacated elementary school. Today's enrollment exceeds 19,000. The Main Campus occupies 60 acres near downtown Albuquerque, and the 42-acre Joseph M. Montoya Campus is in the Northeast Heights. Classes also are offered at the Rio Rancho/Intel Campus and at the University of New Mexico. Planning has begun for additional West Side facilities.

T-VI's classrooms, libraries and laboratories are modern and comfortable. Each student has access to state-of-the-art equipment, especially computers. T-VI programs, facilities and services are accessible to the disabled.

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. The Institute also cooperates with other two- and four-year schools on course articulation and student transfer.

T-VI's Governing Board members are elected by voters in the the Institute district, which includes all of Bernalillo County and part of Sandoval County.

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 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 some programs.) Breaks between terms range from 10 days to two weeks. Most programs admit beginning students 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 is announced on a telephone hotline (224-4SNO) and local radio stations.



Philosophy

The Albuquerque Technical-Vocational Institute, a community college, believes that each individual, regardless of economic status, should be provided the educational opportunity to develop to the maximum extent possible. The Institute believes that postsecondary occupational education is necessary for an ever-increasing portion of the citizens of New Mexico. The Institute believes in occupational, basic, general and related education to enable each student to develop competence, self-awareness and social responsibility to compete successfully in a chosen field.

Mission Statement

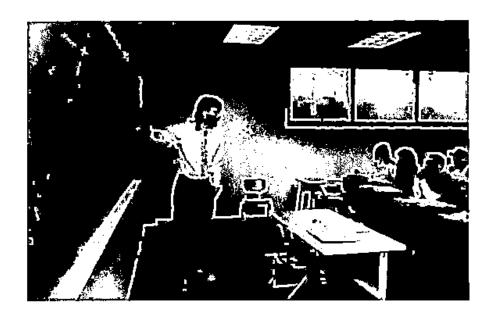
The Albuquerque Technical-Vocational Institute provides coursework leading to occupational certificates and the Associate of Applied Science, Associate of Arts and Associate of Science degrees, and opportunities for transfer credit to other degree-granting institutions.

The primary mission of the Institute is occupational education. To achieve its primary mission, the Institute plans and provides an occupational curriculum to enable each student to gain definable job skills consistent with work force needs of the nation, state and communities of New Mexico.

To complement its primary mission, 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. The Institute also participates in partnerships to promote economic development in the community.

Goals

- 1. The Institute, consistent with work force needs, will offer relevant, occupationally oriented, postsecondary education to develop its students to the desired level of competence.
- 2. The Institute will use its degree-granting powers to enhance the quality of the occupational education offered and to support a statewide plan for the delivery of education in concert with other two- and four-year colleges and universities.
- 3. The Institute will take steps to ensure that its liberal arts courses and, where applicable, its occupational courses meet the standards required for transfer credit to other degree-granting institutions.
- 4. The Institute will offer occupationally oriented continuing education consistent with identified needs.
- 5. The Institute, in responding to unmet needs, will provide educational programs to support the social, cultural and personal development of the individual.
- 6. The Institute will strive for access, equity and diversity that will allow citizens of the State of New Mexico to gain occupational competence regardless of their financial resources or previous educational experience.
- 7. The Institute will work with business, government and other institutions to support the economic development of the community.



Accreditation

T-VI is accredited to grant certificates and associate of applied science, associate of arts and associate of 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 Accounting, Administrative Assistant and Business Administration associate of applied science degree programs are accredited by the Association of Collegiate Business Schools and Programs. ☐ The Legal Assistant Studies program is approved by the American Bar Association. The Practical Nurse and Associate Degree in Nursing programs are accredited by the National League for Nursing. ☐ The Respiratory Therapy Technician, Respiratory Therapist and Medical Laboratory Technician programs are accredited by the American Medical Association's Committee on Allied Health Education and Accreditation. ☐ The Design Drafting Engineering Technology and Electronics Engineering Technology programs are accredited by the Accreditation Board for Engineering and Technology. ☐ The Automotive Technology program is accredited by the National Automotive Technicians Education Foundation, Inc. ☐ The Truck Driving program is accredited by the Professional Truck Driver Institute of America, Inc. ☐ The Tutorial/Learning Centers are accredited by the College Reading and

Learning Association.

Equal Opportunity Policy

The Albuquerque Technical-Vocational Institute affirms that it will not discriminate on the basis of sex, race, color, national origin, religion, age or disability in any of its practices or procedures in accordance with applicable federal, state and local laws, nor will it condone any act of illegal discrimination or harassment on the part of its employees. This provision includes, but is not limited to, employment, admissions, testing, financial aid and educational services.

It is the policy of the Institute not to discriminate on the basis of sexual orientation, marital status or ancestry.

Any person who wants to file a complaint based on these laws should contact the equal opportunity officer, Delma Molina, in the Personnel Office, Main Campus, 2018 Coal Place SE, 224-4600.

In accordance with the Americans with Disabi ities Act (ADA) and Section 504 of the Rehabilitation Act of 1973, Albuquerque T-VI provides notice that no qualified individual with a disability shall, on the basis of the disability, be excluded from participation in, be denied the benefit of, or otherwise be subjected to discrimination related to any of the institution's educational programs or act vities.

If a student has concerns about T-VI's compliance, he or she should contact A. Paul Smarrella in Special Services, P Building, Main Campus, 224-3259.

General Education Statement

The Albuquerque Technical-Vocational Institute, a community college, provides basic, occupational and general education for a population which includes a broad spectrum of ages, cultural backgrounds and intellectual abilities. The Institute is committed to general education and related courses as an integral part of certificate and associate degree programs. The general education courses in clude mathematics, communication skills, social and natural sciences, humanities, foreign languages and fine arts. It is believed that general education enhances students' personal and professional attitudes, habits and skills as they pursue lifelong continuum of learning.

In certificate programs, related education courses cover competencies in communication, math and human relations to better prepare students for the world of work.

In associate degree programs, students are required to complete a minimum of 15 semester credit hours of general education in addition to courses in their major field of study. The required general education courses have been selected to enhance students' personal and professional habits, attitudes and skills. These courses are chosen to increase students' abilities to understand and participate more effectively as members of the community and to give breadth to their chosen careers.

The general education courses in the transfer liberal arts degree reflect the common requirements of the state's six universities and approximate the universities' core curriculum in the freshman and sophomore sequence.

1994–1995 ACADEMIC CALENDAR

□ Fall Term, 1994
Classes begin September 6
Last day to enroll Full term classes
Last day to change from audit to CR/NC or a traditional grade Full term classes
Applications for fall graduation dueSeptember 19
MidtermOctober 24
Last day to change to audit Full term classes
Last day to change from CR/NC to a traditional grade Full term classes
Last day to withdraw Full term classes
Thanksgiving holiday (no classes) November 24-25
Last day (consult department for details) December 21
☐ Winter Term, 1995
Classes begin January 9
Last day to enroll Full term classes
Last day to change from audit to CR/NC or a traditional grade Full term classes
Martin Luther King Day (no classes) January 16
Applications for winter graduation due
Presidents' Day (no classes) February 20
Midterm March 1

	Employee Professional Development Day (no	classes) March 24
	Last day to change to audit Full term classes	
	Last day to change from CR/NC to a tradition Full term classes	March 31
	Last day to withdraw Full term classes	
	Last day (consult department for details)	April 26
	Graduation	April 29
⊐ Su	mmer Term, 1995	
	Classes begin	May 8
	Last day to enrolí Full term classes Short session classes	May 12
	Last day to change from audit to CR/NC or a Full term classes	May 12
	Applications for summer graduation due	
'	Memorial Day holiday (no classes)	
	Midterm	
	Independence Day holiday (no classes)	
	Last day to change to audit Full term classes	July 28
	Last day to change from CR/NC to a tradition Full term classes	July 28
•	Last day to withdraw Full term classes Frid	ay after mid-point of the class
	Last day (consult department for details)	August 18

Phlebotomist	Child Development, AA	Court Reporting, AAS 2 Legal Asst Studies, AAS 60 Pre-Management, AA 1 Sales and Cashiering 18 Secretarial Studies 16 Secretarial Studies, AAS 13	Accounting
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\$6,41 \$9.84 \$10.25	\$7.43 \$6.29 \$8.61 \$9.88 \$13.21 \$5.77	\$8.61 \$5.02 \$6.35 \$7.58	\$6.19 \$7.07 \$5.95 \$7.30 \$7.11 \$7.58
\$13,334 \$20,686 \$21,320	\$15,444 \$13,085 \$17,914 \$20,544 \$27,486 \$11,998	\$17,912 \$10,438 \$13,211 \$15,760	\$12,875 \$14,711 \$12,369 \$15,178 \$14,784 \$15,767



TOTAL GRADUATES

~~	Al.a.	Locate
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Not Seeking Employment

Continuing School 1

Available for Work

Employed in trainingrelated job

Unemployed but seeking

PERCENT EMPLOYED (training-related job; graduates available)

Working in New Mexico

Average hourly rate in training-related jobs*

Average annual salary in training-related jobs*

*Based on 40-hour work week

GRADUATE JOB PLACEMENT, 1993

TECHNOLOGIES Arch/Engineering Drafting Tech	- 2 1 - 2 4 1 1 1	1 2 10 1 2 2 1 2 6 1	1 1 2 1 2 1 -	3 13 8 1 9 12 8 13 12 12 2 1	3 13 5 1 7 10 6 12 8 9	3 2 2 2 2 1 4 3	100% 100% 63% 100% 78% 83% 75% 92% 67% 75% 100%	3 13 5 1 7 10 6 12 8 9 1	\$6.00 \$8.16 \$6.75 \$9.35 \$9.76 \$7.45 \$12.58 \$11.00 \$11.76 \$10.21	\$12,480 \$16,930 \$14,040 \$19,457 \$20,298 \$15,488 \$26,164 \$22,885 \$24,463 \$21,247
TRADES & SERVICE OCCUPATIONS A/C, Heating, Refrigeration	1 1 2 2	8 2 5 10 5 2	6 1 4 8 2 3	38 3 11 6 9	38 3 10 6 9	1	100% 100% 91% 100% 100% 100%	38 3 10 6 9	\$7.03 \$5.33 \$6.49 \$5.74 \$6.10 \$6.45 \$7.38	\$14,616 \$11,093 \$13,491 \$11,935 \$12,688 \$13,408 \$15,360
Commercial Printing 10 Criminal Justice, AAS 22 Culinary Arts, AAS 3 Diesel Equipment Tech 8 Electrical Trades 14 Environ Protection Tech, AAS 25 Fire Science, AAS 5 Food Service Management 12 Machine Tool Technology 7 Mechanical Technology, AAS 1 Plumbing 24 Quantity Food Preparation 21 Truck Driving² 43 Welding 18	1 2 - 1 1 2 2 2	5 - 4 7 - 1 1 5 15 5 5	5 5 - 1 1 3 11	13 3 8 9 18 4 9 6 - 18 5 36	10 3 7 9 16 1 9 6 - 18 5 33	2 3 -	100% 88% 100% 89% 25% 100% 100% - 100% 100% 92% 100%	3 6 9 16 1 9 6 - 18 5 13	\$6.48 \$7.25 \$7.06 \$10.21 \$6.36 \$6.46 \$8.42 \$5.80	\$13,360 \$13,470 \$15,082 \$14,676 \$21,238 \$13,236 \$13,430 \$17,521 \$12,064 \$15,850
TOTAL994	93	212	-	689	601	-	87%		•	

¹ Counted in Not Seeking Employment or Available for Work.

² Compensation based on miles driven.

Admission and Registration

Admission is the process of applying and being accepted to T-VI. Registration (see page 22) is the process of selecting courses, receiving a schedule of classes and completing enrollment at T-VI.*

ADMISSION

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 sex, race, color, national origin, religion, age or disability. It is the policy of the Institute not to discriminate on the basis of sexual orientation, marital status or ancestry.

Most programs admit new students each term: January, May and September. Students may enter T-VI for any term but are urged to apply for admission at least two months before registration opens for that 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, students who interrupt their programs may not be able to resume their studies at the time they want, because classes they need may not be offered every term. An interruption in enrollment may also mean a change in program requirements upon the student's return.

*Note: These requirements and procedures do not apply to students in Outreach & Transitional Programs, including adult education (see page 54).

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 (GEI	D) diploma or the high school
equivalency certificate; or	
☐ have completed high school; or	
☐ qualify under Concurrent Enrollment.	
Note: Many Trades & Service Occupations and	Health Occupations programs have
special admission requirements.	
•	
Admission Statu	,
	1

A student's admission status is determined by the student's primary goal for taking courses at T-VI.

Certificate/Degree Status: Certificate/degree students are those who have chosen a program of study and intend to earn a certificate of 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 (degree or certificate program) are non-degree students. Students who enter T-VI in non-degree status may request to change to certificate/degree status, declare a major and transfer credits earned in non-degree status by completing a Declare a Major form.

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

Concurrent Enrollment: Qualified high school juniors and seniors may be allowed to enroll in a maximum of two vocational and/or academic courses per term. Students may attend courses on the T-VI campus or at their high school. Admission for concurrent enrollment is in non-degree status. Satisfactory course completion may meet both high school graduation requirements and T-VI certificate and/or degree requirements.

Associate Degree Prep: Concurrent enrollment includes the Associate Degree Prep program, which allows juniors and seniors at some Albuquerque high schools to take T-VI business, technology and trades courses and earn credits toward high school graduation and a T-VI degree. The courses meet outside regular school hours.

Information regarding the Concurrent Enrollment program and specific admission requirements is available in the Admissions Office at any T-VI campus and from the student's high school counselor or vocational coordinator.

Applying for Admission: Returning Students

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 will be required to complete a new admissions application.

Applying for Admission: New Students

New students—those who have never attended T-VI in certificate/degree status—should take the following steps:

- Complete a T-VI Application for Admission form, available from the Admissions
 Office.
- 2. Return the application to the Admissions Office. The application may be mailed 30 days before the term begins; after that, it must be hand delivered to the Admissions Office.

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 through the Admissions Office and instructional departments.

Program and Course Placement

- 1. 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.
- 2. 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.
- Preparatory Course Placement: Preparatory courses are available to students needing and/or wanting preparatory work to help them meet course and program requirements.
- 4. 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 may be required to provide proof through transcripts or test scores.

Most entry-level courses have prerequisites for math, English or reading. The following are alternatives to meet entry-level course prerequisites.

Courses listing ENG 099 as a prerequisite:

ENG 099 or above with passing grade

GED writing skills score of 40 or above

Enhanced ACT English score (as of 11/89) of 14 or above

ACT English score (prior to 11/89) of 11 or above

SAT verbal score of 260 or above

ASSET writing skills score of 35 or above

English Placement Exam score of 18 or above

Courses listing ENG 100 as a prerequisite:

ENG 100 or above with passing grade

GED writing skills score of 55 or above

Enhanced ACT English score (as of 11/89) of 19 or above

ACT English score (prior to 11/89) of 17 or above

SAT verbal score of 350 or above

ASSET writing skills score of 45 or above

English Placement Exam score of 22 or above

Courses listing MATH 099 as a prerequisite:

MATH 099 or above with passing grade

GED math score of 40 or above

Enhanced ACT math score (as of 11/89) of 13 dr above

ACT math score (prior to 11/89) of 7 or above

SAT quantitative score of 300 or above

ASSET numerical skills score of 34 or above

T-VI Advisement Math Exam with approved schres

Courses listing MATH 100 as a prerequisite:

MATH 100 or above with passing grade

GED math score of 55 or above

Enhanced ACT math score (as of 11/89) of 16 dr above

ACT math score (prior to 11/89) of 12 or above

SAT quantitative score of 350 or above

ASSET numerical skills score of 34 or above and ASSET elementary algebra score

of 43 or above

T-VI Advisement Math Exam with approved sopres

Algebra Placement Exam score of 8 or above

Courses listing RDG 099 as a prerequisite:

RDG 099 or 100 with passing grade

GED literature exam with score of 40 or above

Enhanced ACT reading score (as of 11/89) of 15 or above

SAT verbal score of 300 or above

ASSET reading skills score of 35 or above

Nelson-Denny reading score of 10 or above

Other college lecture-type courses 101 or higher with C or better (social sciences,

humanities, biological and physical sciences, English, etc.)

Courses listing RDG 100 as a prerequisite:

RDG 100 with passing grade

GED literature exam with score of 55 or above

Enhanced ACT reading score (as of 11/89) of 18 or above

SAT verbal score of 350 or above

ASSET reading skills score of 45 or above

Nelson-Denny reading score of 13 or above

Other college lecture-type courses 101 or higher with C or better (social sciences, humanities, biological and physical sciences, English, etc.)

Although T-VI does not administer the American College Test (ACT), the following cutoff scores have been established for placement purposes:

ACT Taken Prior to November 1989		ACT Taken After November 1989		
English	17	English	19	
Math	12	Math	16	
Social Sciences	14	Reading	18	
Natural Sciences	18	Scientific Reasoning	19	
Composite	15	Composite	18	

ACT and SAT scores may not be more than five years old. T-VI Course/Program Placement Exam scores may not be more than one year old.

Transfer of Credit

Traditional 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:

- 1. An official transcript from each institution must be sent directly to the T-VI Records Office for transfer credit evaluation. (Transcripts should be requested from the records office at the institution(s) previously attended.)
- a. Credit for arts and sciences courses earned at regionally accredited postsecondary institutions will be evaluated automatically upon receipt of the official transcript. Courses with D or better grades earned at public New Mexico institutions will be considered for transfer credit; courses from institutions outside New Mexico and private institutions in New Mexico must have C or better grades to be considered for transfer credit.
- b. To receive transfer credit for occupational courses, the student must request that T-VI's Records Office refer the transcript(s) to the department for review. An interview, demonstration of competence or both may be required before the decision regarding credit is made. Courses will be evaluated according to the occupational program to be 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.

3. Students may appeal the decision on acceptability of transfer credit. The student should contact his/her department counselor to begin the appeal process.

Non-Traditional Credit: Students may be allowed to establish credit based on 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 was offered. The student should contact the department counseling office to initiate the transfer process.

Examination Credit

Students may establish credit upon the successful completion of approved T-VI occupational challenge examinations and the College Level Examination Program (CLEP) and Advanced Placement (AP) exams.

Occupational Challenge Exams

Challenge examinations have been developed for pations, Health Occupations and Technologies, and	
Occupations. The following restriction apply:	'
☐ A student may attempt a challenge only once	per course.
A student may not take the challenge exam if t course at any postsecondary institution.	ne student was enrolled in the
☐ A student's transcript will reflect a grade of	TR (credit) for those courses
successfully challenged. TR grades are not co	
Courses successfully challenged may count t residency requirement.	oward graduation but not the
Challenge exam credit might not be accepted be tions.	y other postsecondary institu-
Information about occupational challenge exam	s and exam procedures is available
in department counseling offices. There is a \$15 f	ee per exam. (Health Occupations

exam fees may vary.)

Arts & Sciences Exams

Students may earn up to 30 credit hours toward Arts & Sciences requirements through Advanced Placement (AP) and College Level Examination Program (CLEP) tests. Information is available in the A&S counseling office.

Advanced Placement Exams

			Minimum	Credit
T-VI Co	ourse	AP Exam	Score	Hours
ART	101	Art History	3	3
BIO	121/121L	Biology	3	8
CHEM	121/121L,			
	122/122L	Chemistry	3	8
CSCI	155L	Computer Science AB	4	3
ECON	200	Macroeconomics	4	3 3
ECON	201	Microeconomics	4	
ENG	101, 102	English Language & Composit	tion 3	6
ENG	101, 1 02	English Literature & Composit	tion 3	6
FREN	101, 102,			
	201, 202	French Language	3	12
FREN	101, 102,			
	201, 202	French Literature	3	12
HIST	101	European History	4	3
HIST	101, 102	European History	5	6
HIST	161	American History	4	3
HIST	161, 162	American History	5	6
MATH	162	Calculus AB	3	4
MATH	162, 163	Calculus BC	3	8
PHYS	151/153L,			
	152/154L	Physics B	4	8
PHYS	160/163L	Physics C	4	5
PSCI	200	American Government	4	3
PSCI	220	Comparative Government	4	3
PSY	105	Psychology	3	3
SPAN	101, 102	Spanish Language	3	8
SPAN	101, 102,			
	201, 202	Spanish Language	4	14

AP scores must be forwarded to the T-VI Records Office. Scores will only be accepted if they are:

sent directly from the AP Testing Center, or	
☐ original scores forwarded to the student, or	
☐ AP scores included on high school or college transcripts as part of the stu	dent's
permanent record.	

College Level Examination Program

			Minimum	Credit
T-VI Course		CLEP Exam	Score	Hours
CHEM	121/121L			_
	122/122L	General Chemistry	52	8
ECON	200	Introduction to Macroeconor		3
ECON	201	Introduction to Microeconon	ics 55	3
FREN	101	College French	40	3
FREN	101, 102	College French	45	6
HIST	101, 102	Western Civilization I, II	50	6
MATH	121	College Algebra	56	3
MATH	123	Trigonometry	61	2
MATH	162	Calculus w/Elementary Fund	ions 60	4
		(objective and problem porti	ons)	
PSCI	200	American Government	55	3
PSY	105	General Psychology	55	3
PSY	220	Human Growth and Develop	ment 52	3
SOC	101	Introduction to Sociology	52	3
SPAN	101	College Spanish	40	4
SPAN	102	College Spanish	45	4
SPAN	101, 102,			
-	201, 202	College Spanish	54	14

CLEP scores must be forwarded to the T-VI Records Office. Scores will only be accepted if they are:

sent directly from the CLEP Testing Center, or

 $[\]hfill\Box$ original scores forwarded to the student.

REGISTRATION

Students are required to register for each term they plan to attend. Registration and payment of fees must be made in accordance with the instructions published in the Schedule of Classes.

Registration for new and returning students begins approximately two months before the start of a term. Continuing students are mailed information about pre-registration. Registration is held through the fifth day of the term for full-term classes and through the third day for short-session courses.

Schedule of Classes: A class schedule is published prior to each term. Starting and ending dates, meeting times and locations, registration instructions and payment information are listed in the schedule, which is available in the Admissions and department counseling offices. Schedules are mailed to continuing students.

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; and
☐ have no grade lower than C in the previous term; and
secure the written permission of the department counselor (non-degree stu-
dents must secure permission from an admissions counselor).
No student may take more than 22 credit hours per term.

Corequisites: A corequisite is a course which must be taken in combination with a specific course. Corequisites are listed with each course description in the Catalog.

Prerequisites: A prerequisite is a requirement which must be completed before a student may enroll in a specific course. Course prerequisites are listed with each course description in the Catalog. A student who receives an I (incomplete), NC (no credit), PR, D or F as a final grade may not enroll in any class for which the former is a prerequisite. 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 in the admissions, department deans' and department counseling offices. Permission of an instructor to enroll does not constitute a waiver of a course, grant credit for another course or allow a course to be overfilled.

Enrollment and Grade Option Changes

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 his or her 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.

Adding Courses: Students may enter Developmental Studies self-paced math courses through the tenth week of the term. 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 short-session classes.

Adding, Changing, Declaring Majors: Students may add, change and/or declare a major (program) at any time during the term. In order to graduate with a specific major, students must either declare a major at the time of admission or complete a Declare a Major form in their department counseling office.

"Stepbacks": Students may, with department approval, "step back" into most developmental courses through the third week of the term and into some lower level occupational courses (in the same discipline) through the fifth week of the term. Students may, however, step back into a self-paced, developmental math course through the tenth week of the term. Students who are having difficulty in a class and are considering this option should contact their department counselor.

Dropping Courses or Withdrawing: To drop a course or withdraw from T-VI a student must complete an official form. Drop and Withdrawal forms are available in the admissions and department counseling offices. Students should not assume that they will be dropped from their courses for non-attendance. Students who have not officially dropped a course will receive a final grade in the course.

Full-term courses may be dropped through the 12th week of the term, short-session courses through the Friday following the midpoint of the course. Full-term, first-half term and second-half term courses dropped on or before the 15th day of the term or session (including Saturdays) do not appear on the student's T-VI transcript. A "W" grade will appear on the student's record for full-term, first- and second-half term courses dropped after the 15th day and for all other courses dropped after the first day of the session.

Changing Grading Options: Grade options are listed on page 42. Some restrictions on changing grading options may exist for courses with corequisites. Information is available in department counseling offices.

A change from the audit grade to a traditional letter grade may be made through the fifth day of the term for a full-term course and the third day of a short-session course. A change from credit/no credit (CR/NC) to a traditional grade may be made through the end of the 12th week of the term for a full-term course and the Friday after the mid-point of a short-session course.

A change to audit may be made through the end of the 12th week of the term for a full-term course and the Friday after the mid-point of a short-session course.

A change to audit may be made through the end of the 12th week of the term for a full-term course and the Friday after the mid-point of a short-session course.

A change from audit to CR/NC may be made through the fifth day of the term for a full-term course and the third day of a short-session course. A change from a traditional grade to CR/NC may be made through the end of the 2th week of the term for a full-term course and the Friday after the mid-point of a short-session course.

NEW MEXICO RESIDENCY

Residence requirements for tuition purposes are established by the New Mexico Commission on Higher Education. A brochure detailing residency requirements and restrictions is available in the Admissions and Records offices.

A student is classified as a resident or non-resident for tuition purposes based on information supplied at the time of admission or readmission. A continuing non-resident student who has satisfied requirements for New Mexico residency may file a Petition for New Mexico Residency in the Records Office. Residency petitions will be accepted through the 15th day of each term (including Saturdays). All requirements for residency must be met before the first day of the term.

In general, to become a legal resident of New Mexico, four basic requirements must be satisfied:

1. 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.

- 2. 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.
- 3. 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.
- 4. 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 Residence 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 in-state tuition rates.

TUITION AND FEES

Upon registering for courses, students receive a registration invoice. In order to complete registration, all charges must be paid. Payment deadlines are printed in the Schedule of Classes each term. Failure to pay all charges in full may result in the deletion of the student's schedule. Authorized agencies that have agreed to pay a student's training expenses are billed by the Institute.

Tuition

Tuition is charged according to a student's residency status and the number of credit hours carried. Special tuition rates do not exist for nonresident part-time students or nonresident students enrolling in the summer term.

Tuition rates for 1994-95 (subject to change without notice) are:

	Resident	Non-Resident
Arts & Sciences courses 1 to 11 credit hours and more than 18 credit hours	\$26.50 per credit hour	\$73.75 per credit hour
12 to 18 credit hours	\$318.	\$885.
Occupational courses 1 to 11 credit hours and 12 to 18 credit hours	none none	\$73.75 per credit hour \$885.

Fees

Some courses have required fees (see following lists). Audit students pay the same fees as students enrolled for credit. Other fees include:

Registration Fee: There is a \$20 registration processing fee required each term (of that, 60 cents is allocated to student activities and organizations).

Transcript Fee: Students may request up to five T-VI transcripts, free of charge, per academic year. Additional copies will be issued for a fee of \$1 per copy.

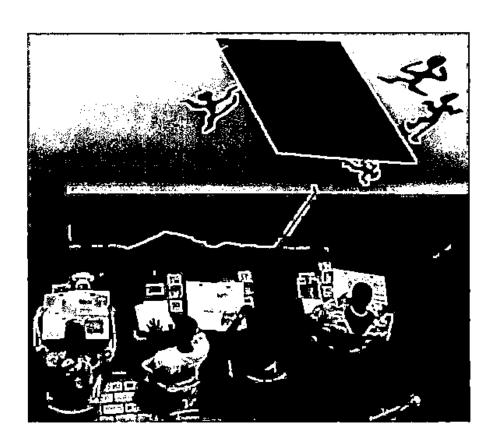
Late Graduation Fee: A \$20 late graduation fee will be charged to students who do not submit an Application for Graduation by the established deadline.

Refunds

Registration Fee: The registration fee is a processing charge that is non-refundable unless T-VI cancels all classes in which a student has registered.

Tuition/Fees: Tuition is refundable only if T-VI cancels a class or if the student withdraws by the 10th day of the term/session. Equipment and tool fees are not refundable after equipment and/or tools are issued.

Tuition, supply and lab fee refunds after the term/session begins are pro-rated as follows:



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 1994-1995 are as follows:

Developmental Studies (s					s (sup	ply fees)
AA	100	\$5	SSKL	092	\$\$	
					- 1	
		Arts & Scie	nces (all	lab fees	unles	ss otherwise noted)
BIO	111L	\$20	BIO	248L	\$20	(equipment fee)
BIO	121L	\$20	BIO	260L	\$20	MATH 162 \$5
BIO	122L	\$20	CHEM	112L	\$20	(equipment fee)
BIO	124L	\$20	CHEM	121L	\$20	MATH 163 \$5
BIO	139L	\$20	CHEM	122L	\$20	(equipment fee)
BIO	200L	\$20	СНЕМ	130L	\$20	MATH 264 \$5
BIO	223L	\$20	CSCI	101	\$10	(equipment fee)
BIO	224L	\$20	CSCI	155L	\$10	PHYS 153L \$20
BIO	231L	\$20	CSCI	163	\$10	PHYS 154L \$20
BIO	239L	\$20	MATH	150	\$5	PHYS 163L \$20
BIO	247L	\$20				
•					- 1	
					- 1	
		Busine	ss Occup	ations ((all su	pply fees)
AA	101	\$15	BA	150	\$15	MMS 150 \$5
AA	102	\$20	BA	157 -	\$5	MMS 151 \$5
AA	105	\$15	CR	103L	\$5	MMS 152 \$5
AA	106	\$20	CR	104L	\$5	MMS 153 \$5
AA	111	\$5	CR	105	\$15	MMS 154 \$5
AA	133	\$20	CR	133	\$10	MMS 155 \$5
AA	136	\$10	CR	210L	\$10	MMS 156 \$5
AA	200	\$20	CR	220L	\$10	MMS 200 \$5
AA	202	\$15	CR	225L	\$15	MMS 255 \$15
AA	205	\$15	CR	230L	\$10	MMS 257 \$15
AA	207	\$20	CR	250L	\$40	MMS 258 \$5
AA ·	234	\$10	CR	260	\$40	MMS 259 \$5
AA	250	\$15	LAS	231	\$15	ì
ACCT	254	\$15	MMS	134	\$20	BOLC
ACCT	255	\$15	MMS	135	\$20	(all courses) \$40

Health Occupations

		₹.			
Program	Course		Equipment	Supply_	Lab
Practical Nurse	NURS	124C	\$90		
	PN	146C	\$10		
Associate Degree Nurse	NURS	124C	\$90		
	NURS	125C	\$10		
	NURS	224C	\$15		
	NURS	225C	\$ 5		
	NURS	231	\$ 5		
Respiratory Therapist	RT	210	\$20		
	RT	223C	\$25		
Respiratory Therapy					
Technician	RTT	110	\$90		
	RTT	123C	\$25		
Licensed Practical			445	, 00.5	
Nurse Refresher	LPNR	155L	\$10	\$25	
Registered Nurse		255	610	\$25	
Refresher	RNR	255L	\$10	\$ <i>2.</i> 3	
Health Unit Clerk	HUC	121C	\$30		
Medical Lab Tech	MLT	110L	\$55		
	MLT	112C			\$20
	MLT	201L			\$20
	MLT	202C			\$20
	MLT	203L			\$20
	MLT	204L			\$20
Nursing Assistant	NA	110L	\$35		
Perioperative Program	PRNS	255L	\$10	\$25	
Phlebotomy	PHLB	101L	\$50		
Emergency Medical					
Technician	EMS	160L	\$20	\$15	
Pharmacy Technician	PT	122C			\$35
-					

Technologies (all supply fees)

ARDR	107L	\$15	CP	105	\$	10	DDET	104L	\$15
ARDR	119L	\$15	CP	111A	\$	10	DDET	106L	\$15
ARDR	130	\$15	CP	111L	\$	10	DDET	114L	\$15
ARDR	180	\$15	CP	174L	\$	to	DDET	115L	\$15
ARDR	181	\$15	CP	175L	\$	0	DDET	215L	\$15
ARDR	182	\$15	CP .	176L	\$	0	EET	107L	\$15
ARDR	203L	\$15	CP	213	\$	0 ,	EET	113L	\$15
ARDR	209L	\$15	CP	216L	\$	0	DIG	211	\$30
ARDR	210L	\$15	CP	272L	\$	0	ELEC	103A	\$15
ARDR	212L	\$15	CP	274L	\$	0	ELEC	103L	\$15
ARDR	214L	\$15	CP	276	\$1	0	ELEC	204L	\$15
ARDR	220L	\$15	CP	278	\$1	10	ELEC	217	\$15
ARDR	295	\$15	CP	279L	\$1	10	ELEC	276L	\$15
CP	101A	\$10	CP	280L	\$	io	PC	202	\$20
CP	101L	\$10	CP	281L	\$1	iþ	PC	213L	\$30
						Į.	MSP	101L	\$25



Trades & Service Occupations (all tool fees unless otherwise stated)

ACHR 101L, 102L or 103L	\$109
ACHR 111L, 112L or 113L	\$85
ACHR 201L, 202L, 203L or 204L	\$85
AUBO 102L, 103L, 104L, 105L,	
112L, 113L, 114L, 115L, 1 202L, \\ 8L	•
203L, 204L, or 206L ZOSL	\$273
AUTC 101L, 102L, 103L, 111L, 112L,	
114L, 201L, 202L or 203L	\$340
BKNG 103L, 104L, 105L or 106L	\$122
BKNG 112L, 113L, 114L, 115L or 116L	\$37
CARP 102L, 103L or 104L	\$122
CARP 112L, 113L or 114L	\$85
CMPR 104L, 105L, 108L or 109L	\$37
DETC 103L, 104L or 105L	\$158
DETC . or IIIL, 1/21 on 1/3	<u>լ \$158</u>
DETC 201L, 202L or 203L	\$122
ELTR 103L or 104L	\$122
ELTR 114L or 115L	\$104
ELTR 204L or 205L	\$61
ELTR 213L or 214L	\$61
MATT 103L, 104L or 105L	\$122
MATT 117L or 118L	\$98
MATT 208L or 209L	\$85
PLMB 101L, 102L, 103L or 106L	\$122
PLMB 111L, 112L, 113L or 114L	\$85
QUFD 103L, 104L, 105L or 106L	\$122
QUFD 112L, 113L, 114L, 115L or 116L	\$98
SCSE 102L, 103L, 104L or 107L	\$122
TRDR 101	\$210 (Supply)
TRDR 102L	\$105 (Supply)
TRDR 103L	\$105 (Supply)
TRDR 105L	\$420 (Supply)
WELD 104L, 105L, 106L or 107L	\$122

ESTIMATED EXPENSES

The budgets below are estimated expenses for tuition, food, housing, transportation, school and personal expenses for full-time students at T-VI for 1994-95. The Financial Aid Office uses these figures to calculate the amount of financial aid a student will receive.

For Students Without Rent/Mor gage Expenses

	1 Term	2 Terms	3 Terms
Tuition & Fees	\$201	\$401	\$602
Room & Board	\$673	\$1 , 350	\$ 2,023
Books & Supplies	\$166	\$331	\$497
Personal Expenses	\$564	\$1,127	\$1,691
Transportation	\$403	\$805	\$1,208
Total	\$2,007	\$4,014	\$6,021
Nonresident Total	\$2,630	\$5,2 61	\$7,891

For Students With Rent/Mortgage Expenses

	1 Term	2 Terms	3 Terms
Tuition & Fees	\$201	\$401	\$602
Room & Board	\$2,562	\$5,126	\$7,688
Books & Supplies	\$166	\$3\$1	\$497
Personal Expenses	\$611	\$1,2 21	\$1,832
Transportation	<u>\$ 449</u>	\$899	\$1,348
Total	\$3,989	\$7,978	\$11,967
Nonresident Total	\$4,612	\$9,225	\$13,837

Note: These figures are only estimates and are subject to change without notice. See pages 24-30 for specific information on tuition and fees

Financial Aid

T-VI is committed to helping needy students meet the rising costs of education by providing financial assistance. Although primary responsibility for educational costs rests with the student and his or her family, T-VI, the U.S. government and the state of New Mexico all contribute money to help needy students pursue a higher education.

Students applying for financial aid should complete a Free Application for Federal Student Aid (FAFSA) available at Jeannette Stromberg Hall on the Main Campus and at Tom Wiley Hall on the Joseph M. Montoya Campus. Both offices are open from 8 a.m. to 4:30 p.m. Monday through Friday. Financial aid personnel are available to help students complete financial aid applications at both offices.

A student does not have to be accepted for admission to T-VI before applying for financial aid. Students are encouraged to apply as early as possible, since processing may take up to 12 weeks. Transfer students applying for financial aid must provide financial aid transcripts from every postsecondary school they have previously attended, even though they may not have received any financial aid. Financial aid transcript request forms are available at either Financial Aid Office.

General Eligibility Requirements

To receive financial aid students must meet the following requirements:
☐ Enroll as a regular student in an eligible program (see the T-VI Financial Aid
Guide or contact the Financial Aid Office). Most programs require that stu
dents be enrolled at least half time (six credit hours or more).
☐ Be a U.S. citizen or an eligible noncitizen.
☐ Maintain satisfactory academic progress.
☐ Must not be in default on any federal educational loans.
☐ Must not owe a refund on a grant.

☐ Sign a statement of educational purpose, stat	ing that the money will go to-
ward educational purposes only.	
☐ If male, sign a statement of registration indica	ting that he has registered or is
not required to register with the Selective Ser	vice.
Students should refer to the T-VI Financial Aid	Guide for detailed information

Types of Aid

Students at T-VI can receive aid through grants, scholarships, loans, work study and other programs, most of which are based on financial need. The Financial Aid Office determines how much and what kind of aid students are eligible to receive and assembles a financial aid package to fit their needs.

Federal Pell Grant: This program provides federal grants to students who have not received a bachelor's degree. Pell Grant awards range from \$400 to \$2,300 per year, depending on a student's enrollment status, cost of attendance and family contribution. Students may pick up their Pell Grant checks on the last class day of the first month of each term. Supplemental distributions are generally scheduled on the last class day of each month for students whose financial aid file was not complete by the regular distribution date.

Federal Supplemental Educational Opportunity Grant (SEOG): SEOG provides federal grants to needy students to help pay for their postsecondary education. Federal money for the program is limited and available only to students with exceptional financial need. Students with exceptional need are those who receive a Pell Grant, have the lowest family contribution and have unmet need. SEOG awards at T-VI range between \$200 and \$600 a year, and the checks are generally 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 financial need are eligible for SSIG awards. If funds are available, part-time students may also be eligible. Awards at T-VI range from \$500 to \$1,500 per year. Checks are generally distributed in the middle of the term.

Federal Stafford Loan (Formerly GSL): Students must apply for a Pell Grant before applying for a Stafford Loan. The maximum students may borrow per year is \$2,625 for first-year students and \$3,500 for second-year students. Borrowers must apply for a subsidized Stafford loan before applying for an unsubsidized loan. An unsubsidized Stafford loan does not qualify for federal interest subsidies. Cost of attendance minus estimated financial aid equals the amount a student may borrow in an unsubsidized loan. Students may borrow only up to maximum loan limits. First-time borrowers may not pick up their checks until 30 days after the term begins. Previous borrowers will receive subsequent disbursements on the 18th day of class. Interest rates

on Stafford Loans are variable not to exceed 9 percent. Students must begin repaying the principal on their loans six months after they leave school or drop below half time status. The minimum monthly payment is \$50 per month. Students should check with the Financial Aid Office for more information on interest rates and to acquire a list of participating lenders.

Federal Supplemental Loans for Students (SLS): 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 or GED (General Educational Development) diploma; therefore, students admitted under ability to benefit are not eligible to receive an SLS. All first disbursements to first-time borrowers of SLS loans are made 30 days after the term begins. Previous SLS borrowers will receive subsequent disbursements on the 18th 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.

Federal 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.

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 Student 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 18th day of class.

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

Work Study: T-VI offers three work study programs: Federal Work Study, New Mexico Work Study and T-VI Work Study. Work Study is part-time on-campus employment that provides students with a chance to earn money to help pay for educational expenses. Most of T-VI's work study programs are based on financial need and are subsidized by the state and federal government. Students may work up to 40 hours per two-week pay period and earn from \$4.50 to \$5.50 per hour, depending on the job. Workstudy students are paid every two weeks.

Child Care Services: The City of Albuquerque, Albuquerque Technical-Vocational Institute and surrounding neighborhood associations provide low-cost child care to eligible T-VI students with children between the ages of 3 and 5.

Tres Manos Child Development Center is conveniently located south of T-VI's Main Campus at the Heights Community Center. To apply a student must submit a completed child care application to the Financial Aid Office by established deadlines. Applications

are considered on a first-come, first-served basis with low-income single parents receiving priority. Participants must recertify at the beginning of each term.

For more information on Tres Manos students should call the Financial Aid Office at Main Campus.

Scholarships: T-VI offers several scholarships. The Three Percent Scholarship pays for tuition and the registration fee. Applicants must be New Mexico residents and meet scholastic requirements along with other criteria. The New Mexico Scholars Program covers tuition, fees and books. Applicants must be New Mexico high school graduates and residents and meet scholastic requirements along with other criteria. The Vietnam Veterans Scholarship covers tuition, fees and books. Applicants must be New Mexico residents and Vietnam veterans.

Departmental scholarships are also offered at T-VI. Students should contact specific academic departments for scholarship amounts and requirements.

Outside agencies also offer scholarships. The Fir ancial Aid Office at both campuses has a Scholarship Resource Book, available to T-VI Students. Also, libraries carry whole reference sections dedicated to finding additional sources of financial aid. For more information on scholarships, offered by outside organizations, contact the Financial Aid Office.

Students interested in receiving financial aid from the following programs must apply directly with the agency.

Veterans Administration: Students planning to apply for VA benefits must have their enrollment certified by a T-VI VA certifying official. Students who fail to complete a course during a term in which they have received VA benefits must repay those benefits unless they can prove to the VA that mitigating circumstances were involved. Veterans transferring from other institutions of higher learning must provide official academic transcripts from every postsecondary 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 program he ps 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 Job Training Services at 768-6000 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 part-time, temporary 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 as a full-time student. Interested students may ask for information at the Financial Aid Office at either campus.

Financial Aid Check Disbursements

At the Main Campus financial aid checks are distributed through the Cashier's Office between 8 a.m. and 4:30 p.m. Monday through Friday. At Montoya Campus financial aid checks are distributed by the Financial Aid Office between 9:30 a.m. and 4:30 p.m. Monday through Friday. Loan recipients who are repeat borrowers and students receiving a second or third loan disbursement are paid on the 18th day of class. First-time borrowers receiving their first disbursement are paid 30 days after classes begin; otherwise, loan checks will arrive four to eight weeks after a student has submitted an application.

Standards of Satisfactory Academic Progress

Federal regulations require that financial aid recipients meet certain academic standards to be eligible for federal financial aid. To ensure financial aid recipients are making satisfactory academic progress, academic transcripts are reviewed once a year at the end of the winter term to determine eligibility for the following academic year. All terms of attendance, including periods that financial aid was not received, are reviewed. Financial aid recipients are placed on financial aid suspension if they fail to meet any of the standards outlined below. Transfer credits are not taken into account when satisfactory progress is reviewed.

1. Qualitative Progress: Students must maintain a cumulative grade point average of at least 2.0 (a C average). Grade point values are:

$$A = 4.0$$
, $B = 3.0$, $C = 2.0$, $D = 1.0$, $F = 0$.

Preparatory (Developmental Studies) grades, credit/no credit, as well as W, AU and TR are not calculated into the GPA. 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.

2. Incremental Progress: Students must satisfactorily complete a minimum of 70 percent of the course work (registered credit hours) they attempt each year. Satisfactory course work includes eligible courses for which the student has received grades of PR, CR, A, B, C or D. 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. Transfer trades are not included in the calculation.

- 3. Maximum Time Frame: Students must complete a program within a maximum time frame. Students enrolled in programs requiring fewer than 80 credit hours must complete the program within 90 attempted credit hours. Students enrolled in programs requiring 80 credit hours or more must complete the program within 100 attempted credit hours. Financial aid will not be paid to students who have exceeded the maximum allowable time when satisfactory academic progress is reviewed. All terms of attendance, including periods when students did not receive financial aid, are counted in the total number of attempted credit hours; preparatory hours are excluded. In addition, students may not receive financial aid for more than 24 credit hours of attempted preparatory course work.
- 4. Student Loan Programs: 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:
 - ☐ Students 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.
 - ☐ Students who drop to less than half time or withdraw from all classes during a term in which they received money from a loan may not apply for another loan until successfully completing a term carrying at least six credit hours.

Financial Aid Suspension

Students who do not maintain at least a 2.0 grade point average or do not maintain incremental progress or exceed the maximum allowable time frame will be suspended from receiving aid. Students not making satisfactory academic progress at the time they apply for financial aid are automatically placed on financial aid suspension.

Financial aid is reinstated once satisfactory academic progress is reviewed at the end of the winter term and all requirements are met. Terms spent on financial aid suspension are counted in the maximum time frame allowed to complete a degree or certificate.

Deferment Policy: Students on financial aid suspension are not eligible for a financial aid deferment.

The Appeal Process

Students suspended from financial aid may appeal. The director of financial aid or her/his designee bases reinstatement on mitigating circumstances that directly contributed to deficient academic performance. In the case of a student loan, however, if the aid is reinstated the loan term will not be backdated to cover the term in which the deficiency took place. Unless otherwise noted, approved appeals are good for the entire period covered by the satisfactory academic progress review.

Students must complete and submit an Appeal Form to the Financial Aid Office, attaching all required documentation. An advisor will review the appeal and forward it to the director of financial aid or his/her designee, who will either approve or disapprove reinstatement of financial aid. Students will be notified of the director's decision within ten working days from submission of the appeal.

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 students who defer their costs, T-VI deducts what they owe from their check when it arrives and the student receives the difference.

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

To apply for a Financial Aid deferment, students should contact the Financial Aid Office. Details are covered in the *T-VI Financial Aid Guide*.

Refunds, Repayments and Distributions

Refunds

T-VI has a fair and equitable refund policy for federal Title IV programs under which students or their parents can be refunded for a PLUS loan, unearned tuition, fees, room and board and other charges for those periods of time the student did not register, withdrew or otherwise failed to complete a term.

Pro-Rata Refunds: Pro-rata refunds apply to students who received federal student aid, attended T-VI for the first time and withdrew before they attended 60 percent of the enrollment period or term.

The pro-rata refund is not less than that part of a student's tuition, fees, room and board and other charges equal to that portion of the student's enrollment period for which the student has been charged that remains on the student's last recorded day of attendance less any unpaid charges and a five percent administrative fee.

Other Refunds: This refund applies to students who do not fall within the pro-rata refund definition. There may be a circumstance in which a student receives a refund after receiving federal student aid. Though this normally does not occur—students at T-VI generally do not receive federal student aid until after the regular refund period has elapsed—T-VI has a policy under which it must return a portion of the refund to the applicable federal Title IV programs.

Formula: The Financial Aid Office uses the following formula to determine the portion of the refund to be returned. Federal Work Study is excluded from the calculation.

Repayment of Cash Disbursements

If a student who received a federal cash disbursement for living expenses withdraws from school, he or she must repay a portion of the amount received if the cash received is greater than the cost of living expenses at the time of withdrawal.

Formula: The Financial Aid Office uses the following formula to determine the portion of the overpayment to be returned to the applicable Title IV program(s). Federal Work Study and Federal Family Educational Loans are excluded from the calculation.

Amount of Overpayment X Total Title IV Funds
Total Financial Aid

Amount to be Returned To Title IV Programs

Distribution Policy on Refunds and Repayments

Refunds and/or repayments are credited to the following programs in the following order:

- 1. Outstanding balances on the Federal Family Educational Loan Program
- 2. Federal Pell Grant Program
- 3. Federal SEOG Program
- 4. Other Title IV programs
- 5. Student

Academic Regulations

Definition of Terms*

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

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 freshman 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 at T-VI ☐ sophomore: A student who has completed 30 or more credits at T-VI ☐ part-time: A student carrying fewer than 12 credit hours per term ☐ full-time: A student carrying 12 or more credit hours per term

Identification Cards: Each term a student is enrolled at T-VI, he/she is issued a student identification card. 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.

^{*} Note: These regulations do not apply to students in Outreach & Transitional Programs, including adult education (see page 54).

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

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.

Any student who misses the first three days of a scheduled occupational or Developmental Studies class may be dropped by the instructor. Any student with excessive absences (15 percent of total class hours) in any course may be dropped from the course by the instructor. If a student is dropped from a course for non-attendance he or she also is dropped from corequisite courses.

A student who stops attending a course should not assume that he or she will be dropped by the instructor (see page 22 for information on dropping courses and withdrawing from T-VI).

(Health Occupations students should consult their program's handbook for specific rules.)

Grading System

Progress reports (grades) are given at midterm for all full-term courses. These grades are not a part of the student's permanent record and are not shown on the student's T-VI transcript.

Final grades are mailed to students at the end of each term. Final grades are recorded on the student's T-VI transcript and calculated in both a term grade point average (GPA) and a cumulative GPA. (See page 22 for information on the recording of course drops and withdrawals on the student's T-VI transcript.)

GPA is based on the grading system listed below:

		Quality points
Grade		per credit hour
CR	Credit	(none)
PR	Progress	(none)
NC	No Credit	(none)
Α	91-100	4.0
В	81-90	3.0
C	71-80	2.0
D	61-70	1.0
F	Failing	(none)
I	Incomplete	(none)
W	Withdrew	(none)
AU	Audit	(none)
TR*	Credit	(none)

^{*}Designation of grade given for transfer credit,non-traditional credit or examination credit (see page 18-21).

Grade Point Average

The grade point average (GPA) is computed by multiplying the number of credit hours of a course by the quality point value assigned to the letter grade: A=4, B=3, C=2, D=1, F=0. For example, a four-credit-hour course with a grade of A carries 16 quality points. Then the total number of quality points earned is divided by the total number of eligible credit hours attempted (GPA hours).

Grades of I, CR, PR, NC, W, AU and TR are not calculated in the GPA. Effective fall 1991, courses on the student's transcript or grade card which have an E in the repetition column are excluded from GPA calculation.

Grade Options

Traditional Grade: Students may choose to enroll in Arts & Sciences and occupational courses for a traditional (letter) grade (A,B,C,D,F). Traditional grades are used in calculating GPAs. Students interested in transferring their T-VI course work to another institution are encouraged to enroll in courses for a traditional grade.

Audit: Students may register in occupational or Arts & Sciences courses for audit 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.

Courses taken for audit will appear on the student's transcript as AU with no credits recorded and no grades assigned. Courses taken for audit are not included in the student's total course load for enrollment verification.

Credit/No Credit: Students may elect to take Arts & Sciences courses for credit/no credit (CR/NC) rather than for a traditional grade. CR/NC is not an option for General Honors or most occupational courses. All Developmental Studies courses are graded on a CR/NC basis. A maximum of nine credit hours graded CR/NC will be allowed toward the Arts & Sciences requirements in certificates or associate degrees.

CR (Credit): Students must meet all minimum requirements for the course. CR is the equivalent of at least the grade of C. Although the student will receive credit for completing the course, a grade of CR will not be computed in the GPA.

NC (No Credit): Students who do not satisfactorily complete minimum course requirements will receive NC. A grade of NC will not be computed in the GPA and the student will not receive credit for the course.

Note: Certain consequences may result from choosing the CR/NC option. Courses with grades of CR will not be allowed in some business occupations majors (programs). Some schools, scholarship committees and honorary societies do not accept this grading system and/or convert grades of CR to C and NC to F. Students planning to transfer to another institution should talk to an advisor at that institution about possible consequences of CR/NC grades.

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. In to 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 accomplished by completing the work in a manner acceptable to the instructor no later than the 10th day of the following term.

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

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 GPA. If a course is taken once for a traditional grade and once for CR/NC, the traditional grade will be used in calculating the student's GPA. This policy applies only to courses with identical course abbreviations and course numbers and does not affect any 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 NC or F. Students who do not officially drop a course may not appeal the final grade they receive in the course

Appeal forms are available in department offices. The following steps must be followed:

- 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 fourth week of classes in the following term. The student and the instructor will hold an appeal conference to discuss the grade. If the matter is not satisfactorily resolved at this level, the student may appeal to the department dean.
- 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

Honor Roll: The Vice President's Honor Roll is compiled each term, listing students who completed 12 or more credit hours with traditional grades during the term and who achieved a term GPA of 3.5 or higher.

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 of enrollment. 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 year. Notification of aca-

demic suspension appears on the student's grade report at the end of each grading period and is a notification letter sent to the student.

Ma Juspended student has preregistered for the next term, his/her 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 student's initial suspension period.

Note: Health Occupations programs may have specific requirements which affect a student's eligibility to continue in the program. Students should refer to the program handbook.

Graduation

T-VI conducts one graduation ceremony each year following the winter term. A student graduates in the term in which all graduation requirements are completed even if there is no graduation ceremony scheduled that term.

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 major (program) they wish to pursue:

☐ an overall cumulative GPA of 2.0 or better and completion of all program and course requirements;

Ecompletion of the last term of course work in residence at T-VI;

- ☐ enrollment in the major in which they plan to graduate (see page 22 for information on adding, changing and declaring majors); and
- ☐ completion and submission of an Application for Graduation.

In addition, degree-seeking students must complete a minimum of 15 credit hours in residence after a degree becomes available.

Note: A maximum of nine credit hours of CR may be counted toward certificates or degrees in majors which allow the CR/NC option.

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

Application for Graduation: Students in degree or certificate programs must complete an Application for Graduation form by the 10th 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 major must submit an application for each major to the appropriate department counseling office.

Students who do not submit an application by the 10th day deadline must pay a \$20 late graduation fee before submitting the application. No application will be processed after the 10th week of the term.

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 that was in effect when they officially entered the

specific major or any subsequent catalog, provided the selected catalog is not more than five years old when the degree or certificate requirements are completed and 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's transcript must show enrollment in each successive term. Full-term, first-half and second-half term courses dropped on or before the 15th day of the term or session (including Saturdays) do not appear on the student's T-VI transcript. 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, but are not limited to, 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, 512). 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 and Rio Rancho/Intel campuses.

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:

L T-VI officials who have a legitimate educational interest in the records
☐ officials of another school in which a student seeks to enroll, intends to en-
roll or is enrolled
officials of the U.S. Department of Education, the Comptroller General, and
state and local educational authorities;
state and local officials or authorities if required by a state law
☐ organizations conducting certain studies for or on behalf of the Institute
□ accrediting institutions
parents or legal guardians of a dependent student under the age of 18, as
defined in the Section 152 of the Internal Revenue Code
individuals serving a judicial order or a lawfully issued subpoena, provided
that a reasonable effort is made to notify the student prior to compliance
☐ honor societies and other chartered student organizations for determining
membership
any person with the written consent of the studen or the parent or legal
guardian of students under 18
☐ appropriate parties in a health or safety emergency

Public Directory Information: T-VI has defined public directory information as:
☐ student's name
☐ major field of study
□ classification
☐ dates of attendance
☐ awards and honors
☐ 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 in the Records Office.

T-VI does not publish a student directory.

Challenge of Contents: Students have the right to challenge the content of their 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 the Records Office manager or registrar. 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 the Admissions Office at the Montoya and Rio Rancho/Intel campuses. Students may request up to five T-VI transcripts, free of charge, per academic year. Additional transcripts will be issued for a fee of \$1 each. No transcript is issued until all institutional obligations are paid.

Transcripts from other institutions that are sent to T-VI are not copied or returned to students.

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 at the Montoya and Rio Rancho/Intel campuses. 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 at the Montoya and Rio Rancho/Intel campuses.

Student Right to Know and Campus Security Act: Student retention and completion data are available from T-VI's Institutional Research Office. Campus security statistics are published annually in the Student Handbook.

Student Services

T-VI provides a wide range of academic and other support services to help students meet their educational goals. Additional information about these services is in the T-VI Student Handbook, which is available in both campus pookstores, and from the campus deans.

Some services may not be available to students enfolled in Outreach & Transitional Programs classes (see page 54); those students should consult an instructor or the dean of Outreach & Transition.

Counseling and Other Support Services

Professional counselors in the admissions areas and individual departments provide comprehensive support services to enhance students' educational experience at T-VI. The counseling staff also works with other T-VI departments to assist students. Among the services provided are:

☐ educational advisement to applicants and students	
☐ individual counseling	
☐ career exploration including aptitude, interest and	personality assessment
☐ crisis intervention and referral]

Counselors, academic advisors and others are listed in the Student Handbook.

Special Services

The Special Services staff works to meet the needs of students from a variety of backgrounds. Included among those who may need special assistance are students with physical or mental disabilities, those who are educationally or economically disadvantaged, displaced homemakers, single parents and others.

T-VI services to these students include career counseling, individual program planning, vocational assessment, ancillary services, coordination with community support agencies and individualized instruction. For students enrolled in developmental, certificate and associate degree courses, limited curriculum adjustments can be made to accommodate disabling conditions. Follow-up services such as counseling, tutoring and job-seeking help are also provided.

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

Academic Support Services

These services are available free to all students and, in most cases, to the public. Libraries and other facilities are generally open weekdays and, when classes are in session, evenings and Saturdays.

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.

When T-VI classes are in session the libraries 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.

Tutorial/Learning Centers: The T/LCs provide free individual tutoring services on a walk-in basis. Subjects covered are math, English, chemistry, physics and biology. Vocational tutors are available for Trades, Technologies, Health Occupations, computer programming and accounting courses. The centers also offer audio and video tapes which support T-VI's instructional programs as well as handouts for self-study. Self-paced programs are available in computer use, academic skills improvement and test preparation. Each center has computers for student and public use.

The Main Campus T/LC is adjacent to the library in Stromberg Hall. At Montoya, the T/LC is in H136. Hours are 7 a.m. to 9:30 p.m. Monday through Thursday, 7 a.m. to 5 p.m. Friday and 8 a.m. to 5 p.m. Saturday.

Adult Education Learning Centers: Individualized instruction and independent study in reading, math, language arts, English as a second language, GED and Spanish GED are offered at these drop-in labs. Although special assistance is available for students who speak English as a second language and for those preparing to take the GED exam, the labs are open to all T-VI students.

The Main Campus lab is in BV20A, at 901 Buena Vista SE. The Montoya lab is in the H Building. (Also see Adult Education, page 54.)

(Also see Business Occupations Learning Centers, page 100.)

Instructional Media Resources: This office maintains T-VI's film and videotape collections and all audiovisual equipment. Materials are available for classroom and individual viewing.

Instruction in the operation of AV equipment is a vailable to students and staff. Other services include educational film location, preview arrangements and assistance in the design, preparation and application of audiovisual materials.

The Main Campus office is on the third floor of Jeannette Stromberg Hall; a satellite office is in Max Salazar Hall. At Montoya, it is in K Building.

Testing Services

T-VI's Testing Centers, in Stromberg Hall at Main Campus and Wiley Hall at Montoya, offer a variety of tests, most free of charge. Study guides for most exams are available in the Admissions offices. Testing accommodations for individuals with disabilities are available upon request; documentation and prior notice are required.

Among the examinations administered at T-VI are:

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. A short reading test is also available for meeting course prerequisites and placement into preparatory reading courses. No fee is required.

Algebra and Trigonometry 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 wanting to enroll in MATH 162, Calculus I, must take both the algebra and trigonometry placement tests. No fee is required.

Nursing Basic Math Test: This exam is required of all applicants to petition for selection to the associate degree in nursing, medical laboratory technician and practical nurse programs. Referrals to take the exam must be obtained from the Health Occupations counseling office. The exam is not timed and no fee is required.

Spanish Placement Exam: This exam is intended for students wishing to enroll in SPAN 101 or above. No fee is required.

ACT, SAT, AP and CLEP: The American College Test assessment tests for placement are no longer offered at T-VI. Students wishing to take the tests must register for a national test date; information and registration packets are available in the Testing Centers. T-VI accepts ACT scores from all students for placement in certain courses. T-VI also honors SAT, AP and CLEP scores but does not administer these exams; for further information contact the Testing Centers. (Also see page 20).

GED Exam

Anyone at least 17 years old who is not enrolled in high school may take the General Educational Development (GED) exam at T-VI 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. A Spanishlanguage GED is offered, and 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 56.

Re-Testing and Time Limits

Placement exams can only be taken twice within one year. The GED can be taken only three times in one year. Career tests are not limited. Re-testing is not available for the NURS 110 challenge exam or the nursing mobility profile.

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 GED, which is 60 days. There is no waiting period for career advisement or aptitude exams. Students are advised to brush up at the Tutorial/Learning Centers (see page 48) prior to re-testing.

Most test scores are good for one year from test date. ACT, SAT and GED scores used for course placement have a five-year limit.

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

T-VI's Testing Centers endorse the Code of Fair Testing Practices in Education.

Job Placement

The Student Job Placement Services office provides job-seeking assistance to T-VI students and graduates.

Student Job Placement offers job listings (many not advertised in the newspaper) from employers who want to hire T-VI students and graduates. The listings are posted in labs and on bulletin boards and at the SJPS offices at both campuses. The Main Campus

office is at 616 Buena Vista SE, and the Montoya Campus liaison office is in Room H-128. Job openings also are available on the SJPS job hotline, 224-3061.

Other services include one-to-one counseling, resumé typing, mock interviews, reference materials, job market information and on-campus interviews.

(Also see internship and cooperative education courses in Business Occupations, Technologies and Trades & Service Occupations.)

Health Care

The 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, various laboratory tests and wellness information. Services are free except for complete physical exams and some immunizations. On a limited basis, counseling is provided for mental health concerns.

First aid is 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.

T-VI is not responsible for property loss or damage or for personal injuries. Students are encouraged to purchase health and property insurance. Details about private-provider health insurance are available from the Student Activities Office at Main Campus.

T-VI students may have prescriptions filled at the University of New Mexico Student Health Center Pharmacy.

T-VI students are eligible for low-cost dental services at the Community Dental Services clinic at the University of New Mexico. Enrollment information is available from the Student Activities Office at Main Campus.

Campus Life

Student Activities: T-VI students have the opportunity to participate in student government and numerous organizations, including sports clubs, campus chapters of professional societies and the national academic honorary for wo-year schools. Information is available from the Student Activities Office in the A Building on the Main Campus.

Bookstores: Students must purchase their own textbooks for Arts & Sciences and occupational classes. (The Department of Developmental Studies loans some texts and requires students to purchase others. Hard-cover textbooks are loaned to students. If the textbooks are lost or damaged, students are required to pay the replacement cost.)

The T-VI Bookstores sell all textbooks required for purchase by T-VI students as well as consumable books such as workbooks and manuals. The stores also sell a full range of school and office supplies and miscellaneous items such as dictionaries, backpacks, sportswear, computer software and accessories and novelties. The Main Campus store is in the A Building; the Montoya Campus store is in Tom Wiley Hall. Hours are published in the Schedule of Classes and the Student Handbook.

Due to state tax law, the T-VI Bookstores are not open to the general public. Students may be asked to show their identification.

Child Care: Tres Manos Child Development Center, at 823 Buena Vista SE south of the Main Campus, offers daytime care to pre-school children of low-income students and neighborhood residents. Fees are on a sliding scale and preference is given to single parents. Information about application appears on page 34.

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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.

A parking permit sticker is required in T-VI lots. Stickers are available free in the Admissions Offices, in Stromberg Hall on Main Campus and in Tom Wiley Hall at the Montoya Campus. Violation of parking regulations may result in disciplinary action.

Bus Passes: Discounted passes for T-VI students are available for Suntran city buses. Students may purchase a regular bus pass for unlimited rides during one calendar month from the Cashier's Office at either Main or Montoya campus. Term bus passes are also available at a discounted price. Students attending at least half time (six credit hours) with a 2.0 grade point average or higher may purchase a discounted bus pass at the Cashier's Office.

Shuttle Bus: A free shuttle bus makes regular trips between the Main and Montoya campuses while classes are in session. (The Main-to-Montoya shuttle also stops at the University of New Mexico campus near Yale and Central.) Schedules are posted in the Admissions offices and are printed in the Student Handbook.

Campus Conduct

Substance Abuse: 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. 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 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.

Details of T-VI's substance-abuse policy appear in the Student Handbook.

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.

Sexual Harassment: Sexual harassment constitutes an unacceptable and punishable offense at T-VI. The campus policy is stated in the Student Handbook.

Smoking: In accordance with Albuquerque City Council ordinances and T-VI Governing Board policy, 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.

Outreach & Transitional Programs

The Outreach & Transitional Programs Department offers free on- and off-campus courses to assist students in making the transition to other Institute programs.

ADULT EDUCATION

T-VI's Adult Education program provides basic skills courses which can lead to successful completion of higher education. These courses also offer students the opportunity to find better jobs.

Textbooks for these courses are provided at no cost. Adult Education courses include English as a second language, reading, writing, spelling and grammar, mathematics, GED preparation and special enrichment courses. Courses are taught in classroom settings and students may also receive instruction at the Adult Education Learning Centers and the Computer Assisted Instructional Centers.

Hablamos Español: El programa de Educación para Adultos ofrece la oportunidad al alumnado de tomar cursos de educación elemental, los cuales pudiesen conducir a la terminación satisfactoria de una educación superior. Los cursos que este departamento ofrece son los siguientes: lectura, escritura, ortografía, matemáticas, inglés como segundo idioma, y cursos preparatorios para el examen de GED. También se ofrecen cursos que enriquecen y complementan el aprendizaje. Los cursos de este programa brindan al alumnado la oportunidad de superarse personalmente así como la de obtener un empleo mejor remunerado. La instrucción es absolutamente gratuita.

Inscripción: Prospectos estudiantes que deseen tomar cursos en el departamento de Educación para Adultos podrán hacerlo inscribiéndose en persona en cualquiera de las 2 localidades de T-VI. En Main Campus la inscripción es en la oficina P-1 (224-4266). En Montoya Campus la inscripción es en la oficina H-100 (224-5575). Los cursos del programa de Educación para Adultos van de acuerdo al horario de T-VI, esto es, con períodos de 15 semanas empezando en septiembre, enero, y mayo. Las inscripciones empiezan un mes antes del inicio de los cursos. Un asistente de inscripción le ayudará en la selección de cursos para que pueda usted satisfacer sus necesidades de horario. Durante el trimestre, habrá personal disponible en cualquiera de los dos T-VIs (Main y Montoya) de lunes a jueves de 7:30 a.m. a 8:30 p.m. y los viernes de 7:30 a.m. a 5 p.m.

Registration: Anyone wanting to take an Adult Education course should begin by registering in person at either T-VI campus. At Main Campus, registration is in the Prep Building, Room P-1 (224-4266). At the Montoya Campus, registration is in Room H-100 (224-5575). 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 registration assistant will help with course selection to meet individual needs and schedules. During the term, staff are available at both Main and Montoya campuses Monday through Thursday from 7:30 a.m. to 8:30 p.m. and Friday from 7:30 a.m. to 5 p.m.

Locations: Adult Education courses are offered a T-VI's Main and Montoya campuses and other locations throughout the Albuquerque area. Current off-campus sites include:

Adobe Acres Elementary School, 1724 Camino del Valle SW Alameda Community Center, 9800 Fourth Street, NW Alamosa Elementary School, 6500 Sunset Gardens Rd. SW Armijo Elementary School, 1440 Gatewood Ave. \$W Barcelona Elementary School, 2311 Barcelona Rd SW East Central Multi-Service Center, 7525 Zuni SE El Buen Samaritano, 700 Granite NW Eugene Field Elementary School, 700 Edith Blvd. SE John Marshall Multi-Service Center, 1500 Walter \$E La Mesa Elementary School, 7500 Copper NE Mountain View Elementary School, 5317 2nd Street SW Polk Middle School, 2220 Raymac SW Rio Grande High School, 2300 Arenal SW Tijeras Community Center, P.O. Box 727; Tijeras, IM Valle Vista Elementary School, 1700 Mae Ave. SW Washington Middle School, 1101 Park Ave. SW West Mesa High School, 6701 Fortuna Rd. NW

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. Text-books are provided free to students.

Standards of Progress: Students receive a certificate that indicates the total number of hours they attended in each course. No letter grades are given.

Attendance: Teachers take attendance at each class session. If a student is absent four classes 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 Education Learning Centers or to the Computer Assisted Instructional Centers to continue their studies.

Student Records: The Adult Education office 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.

Basic Skills and GED Preparation

Basic Skills/GED courses offer introduction and review of grammar, spelling, composition, basic mathematics, literacy and reading improvement. This program also prepares students for the General Education 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. Courses are offered in reading (covers social studies, science and literature), writing composition and mathematics. Students may register for one, two or all three courses as needed.

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. The GED test and all books are free to the student.

GED courses are offered in Spanish to those who wish to take the official GED examination in Spanish. The course provides preparation in the five GED subjects. Upon passing the five GED exam components in Spanish, the students must pass a basic English proficiency test.

Prerequisite for taking the GED Exam: 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, students may call 224-3244 at the Main Campus or 224-5761 at the Joseph M. Montoya Campus.

It is recommended that students take a pre-test. These pre-tests are given at both campuses on an individual basis. Students may call 224-4280 at Main Campus or 224-5583 at Montoya Campus.

Computer Assisted Instructional Centers: The Computer Assisted Instructional Program for GED test preparation is available at Main Campus in Room 104 of Max Salazar Hall and in BV 21B and at Montoya in K-07. Instruction is available through scheduled courses. Students should contact the registration offices for specific information.

Course Descriptions

- BS/L 020 Beginning Basic Language Skills: This course helps students learn the basic skills for reading and writing in English. The course includes letter formation (printing and cursive), phonics, reading and writing words and sentences, and functional activities (for example, filling out application forms).
- BS/R 050 Basic Skills/GED Reading: This course is for students who want to practice and improve their reading in the content areas of popular and classical literature, social studies, natural science and mathematics. This course is for students who can read but who want to improve their comprehension and confidence.
- BS/W 040 Basic Spelling and Grammar: This course is for students wanting to improve their mechanics, usage and sentence structure in order to communicate more effectively. Students learn and use a variety of spelling improvement techniques, parts of speech and punctuation, and write simple, compound and complex sentences. This course is an excellent supplement to Writing Composition.
- BS/W 050 Writing Improvement Skills (Composition): This course is for students preparing to take the writing skills component of the GED exam and for students wanting to improve their skills in writing standard English. Students learn to write clear, complete sentences, unified, well developed paragraphs and coherent full-length essays on a variety of expository and argumentative topics.
- BS/M 050 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 and materials stress real-life situations and practical applications of mathematical skills. Students may progress at their own rate.
- BS/C 060 Computer Assisted Instructional Program (CAIP): This course provides preparation in the five GED subjects using computer assisted instruction.
- BS/G 060 Preparation for the High School Equivalency Diploma (off-campus GED): This course provides preparation in the five subject areas for the high school equivalency diploma (GED). Classes are held off-campus Some sites provide computer assisted instruction.

BS/BL 060 Spanish GED/GED en Español: El Departamento de Educación para Adultos ofrece clases de GED (equivalente al diploma de preparatoria/high school) en español para hispanohablantes que deseen tomar el examen de GED en su propio idioma. Este curso proporciona preparación en las cinco asignaturas del GED—ciencias sociales, ciencias naturales, literatura, matemáticas, y gramática y ortografía. Al aprobar las cinco asignaturas del GED en español los estudiantes deberán aprobar un examen en el uso del inglés.

El examen de GED se suministra mensualmente y los estudiantes pueden tomar este examen cuando se sientan preparados. Los libros de texto, las clases preparatorias y los examenes necesarios para obtener el GED son absolutamente gratuitos.

English as a Second Language

English as a Second Language (ESL) courses are for people who want to learn to speak, read and write English. Courses may be repeated.

Aprenda inglés como segundo idioma.

Lerne Englisch als zweite Sprache.

Imparate l'inglese come una seconda lingua.

Apprenez l'anglais comme deuxième langua.

Aprenda inglês como segunda lingua.

Naucz sie Angielskiego jako druga Nowe.

Hāy hoc anh ngư như sinh ngư thứ như.

Gusto kong matuto ng pangalawang lingguahe.

Uc it se Anglictinu jako druhý jazyk.

YÜNCE AHTINÜCKOMY, CBOEMY BTOPOMY ЯЗЫКУ

102 E EDE 242 214 220 220

Tanulj angolul, miutha ez lenne a māsodik anyanyelved!

Course Descriptions

- ESL 005 Beginning Level I English as a Second Language: This course is for students who do not speak English or who have a low proficiency in English.
- ESL 006 Beginning Level II English as a Second Language: This course is for students who have completed the beginning Level I course or who have otherwise acquired sufficient knowledge of the alphabet, basic vocabulary and present-tense sentence structure.
- ESL 010 Intermediate Level I English as a Second Language: This course is for students who have satisfactorily completed the two beginning levels or who have otherwise acquired fluency in using the simple present and past tenses and further vocabulary.

- ESL 011 Intermediate Level II English as a Second Language: This course is a continuation of Intermediate Level I, which includes mastering the verb system and manipulating of phrases and clauses in sentences.
- ESL 020 Advanced Level I English as a Second Language: This course is for students who have satisfactorily completed the two intermediate levels or who have attained this level through study elsewhere. English grammar is covered with emphasis on reading and vocabulary in English.
- ESL 021 Advanced Level II English as a Second Language: This course concentrates on writing and includes spelling rules and practice.
- ESL 030 Advanced ESL Pronunciation and Conversation: This course is for advanced students of ESL who read, speak and understand English well but want to improve their spoken English in order to be understood more easily by others.

Adult Education Learning Centers

The centers are supervised by master instructors who assist students in GED preparation, basic skill improvement and ESL practice. GED and basic skill instruction is also available in Spanish for those students who are interested in taking the GED exam in Spanish. Volunteers are available for special tutoring. The centers provide individualized instruction and independent study in reading, math, writing and English as a Second Language (ESL). A variety of instructional resources is available, such as audio cassette tapes, video cassette tapes, film strips, textbooks and computer software.

The center at the Main Campus is located at 901 Buena Vista SE, BV-20A. At Montoya Campus, 4700 Morris NE, it is in H-125.

The GED pre-test may be taken during regular center hours. The centers are open Monday through Thursday from 8 a.m. to 9 p.m. and Friday from 8 a.m. to 4 p.m. For assistance or information, students may call 224-4280 (Main Campus) or 224-5583 (Montoya Campus).

Enrichment Clusters

These are short-term, intense, highly focused classes designed to meet the specific needs of Adult Education students. Classes usually meet Friday mornings in two-hour blocks. Topics and titles change according to the needs of students.

Course Descriptions

EC/BS 005 T-VI Orientation: This course acquaints students with the various offerings and services at T-VI and helps them find the education they need. Written information is provided and tours are conducted at each campus.

EC/BS 006 Study Skills: This is a course for students who need to learn or improve study habits. Time management and organizational techniques are studied. Assistance is provided in learning basic skills for success in educational pursuits.

EC/BS 007 Test Taking Tips: This course presents strategies for successful test taking. Students learn the best approach for different kinds of tests. Guidance on effective test taking and tips for raising test scores are provided.

EC/BS 008 Time Management: This is a course designed to help students learn to organize their time, study habits and personal life. The skills necessary to reach employment goals and personal goals are stressed.

EC/BS 051 Math Anxiety: This course helps students conquer the fear of mathematics. This is a rational approach to learning math; understanding the causes of anxiety can eliminate or reduce students' frustration.

EC/BS 052 Basic Ideas in Algebra: This course discusses concepts in elementary algebra, including variables and constants, fundamental operations, order of operations, an introduction to functions and the coordinate graph, and variation. No previous experience with algebra is required, and the course is specifically intended for those who are inexperienced with algebraic ideas.

EC/BS 053 The Metric System: This course provides a hands-on guide to working with the metric system of measurement.

EC/BS 054 Basic Mathematical Formulas: This course shows how to use basic algebraic ideas to manipulate and utilize some common mathematical formulas used in a variety of technical fields, including electronics, mechanics, nursing and business.

EC/BS 060 Critical Thinking Strategies: This course is for students wanting to improve or develop problem-solving abilities useful in school and in life. Critical approaches are applied to math word problems, comprehension questions typical of the science and social studies components of the GED exam, and situations that require the application and evaluation of data. Emphasis is on improving reading and cultivating reasoning across the curriculum.

EC/BS 061 Job Skills: This course teaches students to write resumes, fill out job applications, scan classified advertising for jobs and market their skills confidently.

EC/BS 062 Reading Enrichment: ESL and GED students read, analyze, discuss and write about articles, short stories, novels and films on history or literature.

EC/BS 063 Creative Communications: The first part of this class prepares ESL and GED students to give speeches at the GED graduation. During the second part of the class students produce a book of their poetry and short stories.

EC/ESL 005 ESL Literacy: This course teaches the basic skills for reading and writing. It should be taken by all students who do not read and write or those whose language does not use the same written alphabet as English.

EC/ESL 006 ESL Pronunciation: This course concentrates on clear and correct formation and production of the sounds of the English language. Knowledge of grammar is not required, but some reading skills are needed.

EC/ESL 009 Bilingual Literacy: This course is designed for students who need to develop their basic reading, writing, vocabulary and spelling skills in English/Spanish.

EC/ESL 010 ESL Conversation: This course supplements the ESL courses and provides practice in speaking and using the English language and its idioms.

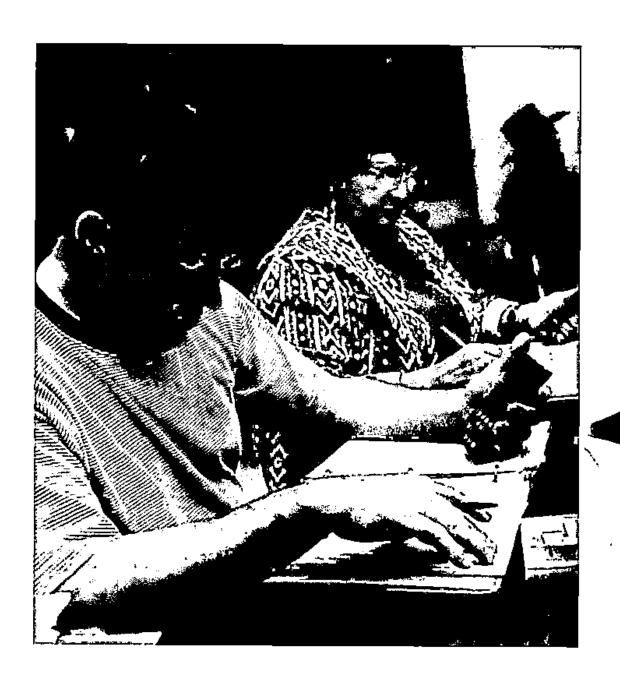
EC/ESL 011 English Through Drama: This course provides practice for high intermediate and advanced students in improvisation, pronunciation and expression, and in writing and performing plays. No previous acting experience is necessary.

EC/ESL 012 American Culture for ESL: Students learn about American culture by viewing, discussing and writing about classic and contemporary films.

EC/ESL 013 Creative ESL: This is a specialized conversation/American culture class using games, songs, puzzles and skits to promote conversation in English.

EC/ESL 020 ESL Writing: This course supplements the ESL courses and provides individualized practice in writing and using English grammar at sentence and paragraph levels as well as in essays.





Developmental Studies

Main, Montoya, Rio Rancho/Intel and University of New Mexico Campuses

There are many reasons why students are not ready for college-level studies. Some did not enroll in the right courses in high school. Others orce had the skills but have been out of school for years and now need to "brush up." Still others' lives were full of responsibilities, circumstances or priorities that made it difficult for them to be successful students. And some have solid academic skills but lack confidence. But, for whatever reason people find themselves unprepared for college, college is not an impossibility.

The T-VI Department of Developmental Studies (DDS) works with students to develop the basic academic, study and life skills necessary for college success, whether those students choose to follow a liberal arts or a vocational path. Reading, writing, math and science courses are offered as are introductory courses to some vocational programs. The department also offers courses to help students develop useful strategies such as time management, stress management, calculator usage and test preparation. Students are placed in the appropriate courses based on their needs, interests and abilities.

The Department of Developmental Studies offers day and evening classes at four sites: the T-VI Main, Montoya and Rio Rancho/Intel campuses and the University of New Mexico. (Information about the Introductory Studies Program at UNM can be found in the current UNM catalog.)

Textbooks and supplies for Developmental Studies classes may be purchased at the bookstores at the Main and Montoya campuses. In a few cases, books are available from the department for check-out or for use in the classroom.

Eligible students may receive financial aid for up to 24 credit hours in Developmental Studies courses. Students using veterans' benefits should check with VA advisors as some DDS courses are not eligible for benefits.

Developmental Studies courses do not use the traditional letter grading system (A, B, C, D, F). In order for students to build up their skills without the added pressure of traditional grades, courses are graded CR (credit), PR (progress) and NC (no credit). While credit from Developmental Studies courses is not transferable to other degree-granting institutions, grades are recorded on students' permanent records, and these courses typically help students meet admissions requirements and program prerequisites.

Math Applications Lab

DDS offers extra assistance in the Math Applications Lab. For the many students who learn by doing, this lab provides the hands-on practice needed to understand principles and formulas commonly used in basic math and algebra classes. The lab is located in Rooms P-7 and P-9 of the Prep Building on the Main Campus. For more information, students should call the DDS office at 224-3931.

Writing and Reading Assistance Center (WRAC)

The department also offers students one-on-one and small-group help with writing and reading projects in the WRAC lab. This help includes instruction in pre-writing techniques, outlining strategies, essay organization, summary writing, grammar, vocabulary building, reading comprehension, test preparation, study skills and other concepts covered in DDS reading and writing courses. Resource materials and computers with writing and reading software are also available. The lab is located in Room P-22 of the Prep Building on the Main Campus. For more information or operating hours, students may call 224-3954.



Course Descriptions

English

ENG 090 Special Topics

1-3 credit hours

Various topics in developmental English are presented.

ENG 095 Spelling

3 credit hours

This course provides methods to improve spelling. Word structure and the rules governing spelling are reviewed, discussed and tested. This course may be taken concurrently with any other English courses. (3 theory hours + 1 lab hour a week)

ENG 096 Introduction to Standard American English 4 credit hours This course provides small-group instruction to improve fundamental oral and written language skills. Verbal communication, reading comprehension and basic writing skills are covered. (2 theory + 6 lab hours a week)

ENG 097 Language Development

4 credit hours

This course provides small-group instruction to improve oral communication, reading comprehension and basic writing skills. Students also earn to identify the parts of speech, appropriate sentence constructions and some fundamental rules of punctuation. (2 theory + 6 lab hours a week)

ENG 098 Advanced Language Development

3 credit hours

(Prerequisite: ENG 097 or equivalent skills demonstrated by exam) This course focuses on making reading and writing a part of everyday life. Students read and respond to short articles and other selections, write short compositions and review basic rules of grammar and punctuation. (3 theory + 2 lab hours a week)

ENG 099 Writing Standard English I

3 credit hours

(Prerequisite: ENG 098 or equivalent skills as demonstrated by exam) The course reviews the grammar, punctuation and usage of standard American English. Students write short narratives and descriptions, as well as a variety of forms used in daily life and the work place, such as application letters, complaint letters, summaries, etc. (3 theory hours + 1 lab hour a week)

ENG 099A

Writing Standard English I:

3 credit hours

For students with limited experience writing standard American English

(Prerequisite: ENG 098 or equivalent skills as demonstrated by exam; corequisite: RDG 099) The course is for students for whom standard American English is a second language or dialect. Equivalent to ENG 099, this course covers the same material but also teaches students to recognize and edit the grammatical errors that are made by non-native speakers. (3 theory hours + 1 lab hour a week)

ENG 100 Writing Standard English II

3 credit hours

(Prerequisite: ENG 099, ENG 099A or equivalent skills as demonstrated by exam) This course teaches students to write well developed, grammatically correct essays. Students are introduced to a variety of strategies for organizing essays and supporting their views. Satisfactory completion of ENG 100 meets the prerequisite for ENG 101. (3 theory hours + 1 lab hour a week)

ENG 100A

Writing Standard English II:

3 credit hours

For students with limited experience writing standard American English

(Prerequisite: ENG 099, ENG 099A or equivalent skills as demonstrated by exam; corequisite: RDG 100) This course is for students for whom standard American English is a second language or dialect. Equivalent to ENG 100, it covers the same material but also teaches students to recognize and edit the grammatical errors that are made by nonnative speakers. (3 theory hours + 1 lab hour a week)

ENG 100G Fundamentals of Grammar

2 credit hours

An intense review of English grammar, this course is particularly recommended for students concurrently enrolled in ENG 100 who are struggling to fulfill the grammar requirements, although others are welcome. Satisfactory completion of this course does not fulfill the prerequisite for ENG 101. (2 theory hours + I lab hour a week)

Mathematics

MATH 090 Special Topics

1-3 credit hours

Various topics in developmental math are presented.

MATH 097 Introductory Mathematics

6 credit hours

This course provides small-group instruction in basic mathematics: whole numbers, fractions, decimals, percents, and ratio and proportion. The course is offered in individualized and/or lecture formats. Satisfactory completion of MATH 097 meets the prerequisite for MATH 100. (5 theory hours + 3 lab hours a week)

MATH 099H Basic Math for Health Occupations

3 credit hours

This course prepares students for the Nursing/Medical Laboratory Technician basic math test. Topics include basic arithmetic, the metric system and other measuring systems. Department approval is required for enrollment in this course.

MATH 099 Basic College Mathematics

4 credit hours

This course, offered in individualized and/or lecture formats, is for students entering programs in Business Occupations, Technologies and Trades & Service Occupations or preparing for MATH 100. Topics include basic mathematics, geometric concepts and measurement. Satisfactory completion of MATH 099 meets the prerequisite for MATH 100. (4 theory hours + 1 lab hour a week)

MATH 100 Elementary Algebra for College Students 4 credit hours (Prerequisite: MATH 097 or MATH 099 or equivalent skills as demonstrated by exam) This course is offered in individualized and/or lecture formats. Topics include linear equations, polynomials, factoring, formulas, graphing and application problems. Satisfactory completion of MATH 100 meets the prerequisite for MATH 119 and MATH 120. (4 theory hours + 1 lab hour a week)

Reading

RDG 090 Special Topics

1-3 credit hours

Various topics in developmental reading are presented.

RDG 099 Reading for the Workplace

3 credit hours

(Pre- or corequisite: ENG 098 or equivalent skills demonstrated by exam) This course focuses on the reading required for success in the workplace. Topics include comprehending occupational materials, responding appropriately to written instruction and writing responses. Students read materials from their individual majors. (3 theory hours + 1 lab hour a week)

RDG 100 Reading and Critical Thinking 3 credit hours (Pre- or corequisite: ENG 099 or equivalent skills demonstrated by exam) This course focuses on reading as a critical-thinking process. Topics include comprehending liberal arts materials, integrating new information with prior knowledge, critically evaluating written argument and developing research skills. The relationship between reading and writing is emphasized. The course satisfies the ACT reading requirement. (3 theory hours

Science

SCIE 090 Special Topics

+ 1 lab hour a week)

Various topics in developmental science are presented.

1-3 credit hours

3 credit hours

SCIE 100 Introduction to Science

(Recommended pre- or corequisite: MATH 100 or equivalent) This course is for students who want a second chance to take high school-level chemistry before entering college biology and chemistry. It is appropriate for degree-bound health majors, meets the recommended prerequisite for BIO 123 and 136 and satisfies the science reasoning portion of the ACT. (3 theory hours + 1 lab hour a week)

Occupational Support Courses

OCC 090 Special Topics

1-3 credit hours

Various topics in occupational support courses are presented.

AA 100 Introduction to Typing

3 credit hours

This course prepares students to type or use a keyboard at a minimum rate of 25 words per minute. It is recommended for students in Business Occupations, Business Computer Programming Technology and other majors requiring keyboarding skills. There is a \$5 fee for supplies.

ACCT 100 Introduction to Accounting

3 credit hours

This course is designed to provide students with knowledge of the basic accounting cycle. Additional topics such as payroll and taxes are covered as time permits. This class prepares students for entry-level accounting-related courses.

CMBO 100 Communications for Business Occupations 3 credit hours A review of study, research and grammar skills is offered in this course. It develops business vocabulary and promotes letter writing, interpersonal communication, problem solving and employability skills.

CMHO 100 Communications for Health Occupations 3 credit hours
This course emphasizes reading, interpreting and summarizing health articles. Health
terminology is introduced through vocabulary study and health literature. Group learning and study skills are utilized.

CMTT 100 Communications for Technologies and Trades

3 credit hours

Students learn about technology- and trades-related topics through reading and analyzing occupational literature. The course emphasizes critical reading, problem solving, technical writing and study skills. A considerable amount of time is spent on computer use and application.

CP 100 Introduction to Computer Programming 3 credit hours This course provides preparation for first term in Business Computer Programming Technology. Content includes flowcharting, logic, data processing concepts and programming in BASIC. Satisfactory completion of the course indicates the student is prepared for entry-level computer courses. (3 theory hours + 1 lab hour a week)

DRFT 100 Introduction to Drafting

3 credit hours

This course offers introductory concepts of drafting, including line weights, orthographic project, pictorials and applied drafting skills. Free-hand sketching, geometric constructions, lettering, drafting math and occupational information are also presented. The course prepares students for Architectural Engineering Drafting Technology, Commercial Printing, Construction Management and Design Drafting Engineering Technology. (3 theory hours + 1 lab hour a week)

ELEC 100 Introduction to Electronics for Technologies/Trades

3 credit hours

This course offers instruction in electronics theory such as Ohm's, Kirchoff's and Watt's laws; circuit analysis; magnetism; the operation of generators and motors; and capacitance. Students learn to use their reasoning powers and applied mathematics to solve electrical problems. This course is recommended for Electronics Technology, Electronics Engineering Technology, Electrical Trades and Heating, Air Conditioning and Refrigeration. (3 theory hours + 1 lab hour a week)

HLTH 100 Introduction to Health Occupations 3 credit hours
This course offers an introduction to various health careers. Other topics include anatomy,
physiology and pathophysiology of selected body systems.

Skills Improvement/Mini Courses

SSKL 090 Special Topics

1-3 credit hours

Various topics in study skills are presented.

SSKL 092 Introduction to the Scientific Calculator 1 credit hour This course teaches the use of the functions on the calculator keyboard. Topics include statistics, programming and graphing functions. It is useful for math, science and Technologies courses. A co-enrollment in MATH 100 (or higher) is suggested. Calculators are provided. There is a \$5 fee for supplies. (2 theory hours + 1 lab hour a week)

SSKL 094 Reducing Math Anxiety

1 credit hour

This course offers students a chance to gain an understanding of math anxiety and modify related behaviors through the use of group discussion, journal entries and math study skills. This course is designed for math anxiety, not test anxiety.

SSKL 095 Study Skills

1 credit hour

Students identify and apply a variety of study skills by completing an inventory and implementing time-management strategies. In this 7¹2-week course methods are presented for taking effective notes, using memory techniques, approaching test preparation and test taking and setting realistic goals.



Arts & Sciences

Arts & Sciences provides liberal arts courses to support degree and certificate programs and offers the associate of arts degree. All courses are transferable as freshman and sophomore electives or requirements to other degree-granting institutions.

All courses in Arts & Sciences have tuition charges. In addition, science courses have lab fees and some mathematics courses have equipment fees. (See page 27.) Some courses carry prerequisites or corequisites which are mandatory. Some descriptions list courses which it is recommended be taken prior to enrollment, but these are not mandatory.

GENERAL HONORS COURSES

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

Enrollment in these courses is by application only; however, any student interested in the challenge these courses offer is encouraged to apply. Academic potential (as reflected in 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 counselor.

LIBERAL ARTS

Associate of Arts Degree
Main, Montoya and Rio Rancho/Intel 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 majoring in liberal arts are 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). Course descriptions for MATH 120 and ENG 101 below list these prerequisites.

Fulfillment of the degree requirements listed below and institutional requirements listed on page 44 of this 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, students should contact the Arts & Sciences office.

The associate of arts degree in liberal arts includes a general education core curriculum of 33 to 35 semester hours adopted by member institutions of the New Mexico Council of Independent Community Colleges. This core is accepted in common among these institutions as meeting approximately half of an associate of arts degree. Each institution will specify additional graduation requirements beyond those included in the general education core for degree completion.

The colleges participating in this agreement are as follows: Albuquerque T-VI, Clovis Community College, New Mexico Junior College, Northern New Mexico Community College, San Juan College and Santa Fe Community College. Students should check with the registrars of other colleges—such as Luna Vocational-Technical Institute, New Mexico Highlands University, New Mexico Military Institute, Southwestern Indian Polytechnic Institute and Tucumcari Area Vocational School—for updated information about this agreement.

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Students seeking T-VI associate degrees in fields other than liberal arts should consult individual program requirements for liberal arts courses. Course prefixes are given for each discipline in the list on the next page. The following course descriptions are listed alphabetically by course prefix.

Note: Courses numbered in the 100s are considered college freshman-level work; courses numbered 200 and above are sophomore level and may require substantial reading, writing and research skills in addition to the prerequisites. Students should consult a counselor, academic advisor or faculty member for advice on course selection.

Liberal Arts Degree Program

Discipline	Course Prefix	Credit Hours
Communications	COMM, ENG (writing	ng)
	ish writing courses (must include I	•
	1M 221	
Computer Science		2 4
	I 101 or equivalent	
Social and Behavi		
Anthropol		
Economic		
Geography		
Political S		
Psycholog	y PSY	
Sociology	SOC	
No r	nore than 6 credits from any one di	iscipline9
Biological and Ph	ysical Sciences	
Astronomy	ASTR	
Biology	BIO	
Chemistry	CHEM	_
Physics	PHYS 🚜 Cons	\mathcal{O}_{ϵ} .
2–3	PHYS 💥 COUR courses (must include one lab cour	;se)
Humanities		U
General H	onors GNHN	
History	HIST	
Humanitie		
Literature	ENG (literature)	
Philosophy	•	
Religious		
_	nore than 6 credits from any one di	iscipline9
	MATH	•
	course numbered above MATH 12	2_3
		······································
Fine Arts and For		
	ART, MUS, FREN, S	SPAN
(A to	otal of 3 credit hours of applied or	studio arts may be
used	toward the 64 credits for the degree	ee.)
Апу	two courses	6
Electives	Any Arts & Sciences	courses
	edit hour of physical education allo	
Total		64

Course Descriptions

ANTH 110 Language, Culture and the Human Animal

3 credit hours

This is an introductory course for the fields of linguistics and anthropology. Students learn about the systematic nature of language on the levels of phonology, morphology, syntax, semantics and pragmatics.

ANTH 120 Archaeology: Discovering Our Past

3 credit hours

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 credit hours

This course introduces the basic concepts of cultural anthropology. Lectures include a survey of the characteristics of culture illustrated by a variety of existing cultures in their native environments. Societal examples are studied in cross-cultural comparisons.

ANTH 150 Evolutionary Anthropology

3 credit hours

An introduction to the world of biological anthropology and the concepts of organic evolution, this course emphasizes the fossil history of primates, the prehistory of man and human genetics within a paleoecological context. Modern primate behavior is presented in terms of its relevance to human evolution.

ANTH 222 Ancient Mesoamerica

3 credit hours

(Recommended: ANTH 120) 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 231 North American Indians

3 credit hours

(Recommended: ANTH 130) This course presents a comparative ethnology of North American Indian tribes on geographic, ecologic and cultural bases. The student is shown what life as a North American Indian was like before European influence and is shown the vast diversity of cultures existing on the North American continent.

ANTH 238 Cultures of the Southwest

3 credit hours

(Recommended: ANTH 130) 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 credit hours

(Recommended: ANTH 120 or a familiarity with archaeology) The interpretations and dynamics of southwestern archaeology from the time of the earliest inhabitants until European contact are presented.

ANTH 296 Topics in Anthropology

1-3 credit hours

Various topics exploring an issue in anthropology or the works of an influential anthropologist are offered.

ART 101 Introduction to Art

3 credit hours

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 credit hours

The interrelationships of three southwestern cultures are explored in slides, lectures and field trips, all of which emphasize major forms of expression in pottery, textiles, jewelry, architecture, painting and photography.

ART 201 History of Art I

3 credit hours

This course surveys Near Eastern, Egyptian, Greek, Roman, early Christian, Byzantine, early Medieval, Romanesque and Gothic art and architecture. Lectures are supplemented by slides. Fall, summer term.

ART 202 History of Art II

3 credit hours

This survey covers Italian and Northern Renaissance, Baroque, Rococo and nineteenth-century western European painting, sculpture and architecture. Slides and readings supplement lectures. Winter, summer term.

ART 250 Modern Art

3 credit hours

Students are introduced to the major figures, movements and stylistic developments in Western art from 1850 to the present. Slides and readings supplement lectures.

ART 260 Architectural History: Ancient Through Modern

3 credit hours

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 are analyzed, Material is supplemented by slides.

ASTR 101 Introduction to Astronomy I

3 credit hours

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. Students use a minimum of elementary mathematics at the level of MATH 100.

ASTR 102 Introduction to Astronomy II

3 credit hours

The life cycles of the stars and stellar systems and the structure of the universe are explored in this descriptive course. Starting with our own star—the sun—students study the births, lives and deaths of stars. The course then moves on to the nature of the Milky Way galaxy and to current concepts on cosmology and the large-scale structure of the

universe. Students use a minimum of elementary mathematics at the level of MATH 100.

BIO 111 Environmental Science

3 credit hours

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 credit hour

An optional laboratory for investigation of the principles discussed in BIO 111, this course includes laboratory analyses of water, soil and air pollutants as well as field trips to sites of special interest. Field trips may be moderately strenuous and may occur outside the regularly scheduled laboratory periods.

BIO 121/121L Principles of Biology I

4 credit hours

(Recommended: Working knowledge of math at the level of MATH 100 and chemistry at the level of CHEM 111) This course introduces the basic principles of biology to students wishing to pursue majors in the sciences. The course stresses cellular-level processes which include biological chemistry, cellular metabolism, photosynthesis, control and transmission of hereditary materials, and nucleic acid structure and function. The development of critical thinking skills and scientific methodology is emphasized. Students must enroll in both a three-hour lecture section and a three-hour lab.

BIO 122/122L Principles of Biology II

4 credit hours

(Prerequisite: BIO 121/121L) This is a continuation of the concepts developed in BIO 121/121L. The course stresses organism-level processes which include taxonomy, comparative anatomy and physiology of plants and animals with emphases on evolutionary trends, embryology, behavior and ecology. Importance is placed on the development of scientific reasoning with an evolutionary perspective. Students must enroll in both a three-hour lecture section and a three-hour lab.

BIO 123 Biology for Health Sciences

3 credit hours

(Recommended: Working knowledge of math at the MATH 100 level and chemistry at the CHEM 111 level or SCIE 100) Principles of cell biology, cell chemistry, genetics and organismic biology are studied with an emphasis on human systems.

BIO 124L Biology for Health Sciences Lab

1 credit hours

(Pre- or corequisite: BIO 123) Laboratory exercises and demonstrations related to cell biology, biochemical processes and genetics are conducted.

BIO 136 Human Anatomy and Physiology for Non-Majors

3 credit hours

(Recommended: Working knowledge of content in SCIE 100) This one-semester course examines the structure (anatomy) and function (physiology) of the human body. Investi-

gation involves the molecular, cellular, tissue and organ levels and a sequential study of organ systems.

BIO 139L Human Anatomy and Physiology 1 credit hour for Non-Majors

(Pre- or corequisite: BIO 136) Laboratory exercises complement concepts presented in BIO 136. Exercise topics include histological study, biochemical processes, mammal organ dissections and use of models to illustrate anatomical arrangement.

BIO 200/200L General Ecology

4 credit hours

(Prerequisite: BIO 122/122L or BIO 123/124L with permission of instructor) Students are introduced to the interrelationships of organisms to their environments through the study of populations, communities, ecosystems and the biosphere. Students must enroll in both a three-hour lecture section and a three-hour lab. Summer, fall terms only.

BIO 221 Introductory Genetics

3 credit hours

(Prerequisite: BIO 123/124L, BIO 121/121L 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 credit hour

(Pre- or corequisite: BIO 221) Lab exercises using fruit flies and lower organisms illustrate the principles introduced in BIO 221. Offered alternating terms.

BIO 224/224L Southwestern Natural History 4 credit hours

Lecture and labs or field trips (one or more overnight) present the natural history and identification of southwestern flora and fauna. Students must enroll in both a three-hour lecture section and a three-hour lab. Summer and fall terms only.

BIO 231L Applied Environmental Microbiology 4 credit hours (Prerequisite: BIO 121/121L 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 credit hours (Prerequisites: Combination of either BIO 123/124L or BIO 121/121L and CHEM 111/112L or CHEM 121/121L) 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 credit hours (*Prerequisite: BIO 237*) 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 credit hours

(Prerequisites: Combination of either BIO 123/1241 or BIO 121/121L and CHEM 111/112L or CHEM 121/121L. Corequisite: BIO 239L) The concepts of microbiology, host-parasite relationships, infection and immunity are in roduced.

BIO 239L Microbiology Lab

1 credit hour

(Prerequisites: Combination of either BIO 123/124L or BIO 121/121L and CHEM 111/112L or CHEM 121/121L. Corequisite: BIO 239) Students learn a variety of techniques designed to facilitate the growth, identification and control of microorganisms.

BIO 247L Human Anatomy and Physiology I Lab 1 credit hour (Prerequisites: Combination of either BIO 123/124L or BIO 121/121L and CHEM 111/112L or CHEM 121/121L. Pre- or corequisite: BIO 237) This course provides anatomical and physiological laboratory exercises which complement the topics covered in BIO 237. Specimen dissection and cadaver study are included.

BIO 248L Human Anatomy and Physiology II Lab 1 credit hour (Prerequisites: Combination of either BIO 123/124L or BIO 121/121L and CHEM 111/112L or CHEM 121/121L. Pre- or corequisite: BIO 238) This course provides anatomical and physiological laboratory exercises which complement the topics covered in BIO 238. Specimen dissection and cadaver study are included.

BIO 260/260L Botany

4 credit hours

(Prerequisite: BIO 122/122L) This course introduces students to the diversity of the plant kingdom: Algae, Bryophyta, Pterophyta, Gymnosperms and Angiosperms. Plant morphology, anatomy and sexual and asexual reproduction are covered under each section. Students must enroll in both a three-hour lecture section and a three-hour lab.

BIO 296 Topics in Biology

1-3 credit hours

Various topics are offered.

CHEM 101 Concepts of Chemistry

3 credit hours

This course is a non-mathematical introduction to chemistry as it applies to the world in which we live. In addition to a qualitative treatment of the chemical and physical properties of matter, topics of special interest are covered.

CHEM 111 Introduction to Chemistry

3 credit hours

(Prerequisite: One of the following: Passing MATH 100 or higher or math ACT [see page 18 for scores] or satisfactory scores on all four parts of the T-VI math advisement test) In this one-semester introduction for students in the health sciences, both the qualitative and quantitative aspects of general chemistry are covered: atomic and molecular structure, the periodic table, acids and bases, mass relationships, solutions, equilibrium and a brief introduction to organic chemistry.

CHEM 112L Introduction to Chemistry Lab

1 credit hour

(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 121/121L General Chemistry I

4 credit hours

(Prerequisite: MATH 121 or MATH 150) 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. Problem solving is emphasized. Students must enroll in both a three-hour lecture section and a three-hour lab.

CHEM 122/122L General Chemistry II

4 credit hours

(Prerequisite: CHEM 121/121L) 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 as well as a brief survey of the elements are included. Students must enroll in both a three-hour lecture section and a three-hour lab.

CHEM 130L Environmental Chemistry

3 credit hours

(Prerequisite: CHEM 111/112L) Introducing students to the fundamentals of environmental chemistry, this course focuses on chemical and instrumental analysis, sampling and preservation techniques in water, wastewater, soil, air and food testing.

CHEM 212 Organic Chemistry and Biochemistry 4 credit hours (Prerequisite: CHEM 111/112L or CHEM 121/121L) A one-semester introduction to organic chemistry and biochemistry designed for students in health or 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 credit hours

Various topics are offered.

COMM 110 Mass Media and Society

3 credit hours

(Recommended: ENG 101) This course examines the role newspapers, TV, magazines and radio have in American society and their effects on other forms of communication. The course also introduces the economic and developmental history of mass media.

COMM 130 Public Speaking

3 credit hours

(Recommended: ENG 101) This course blends theory and practical application. Students prepare, present and critique speeches of their own and others to meet professional and personal goals.

COMM 221 Interpersonal Communication Studies 3 credit hours (Recommended: ENG 101) Through group activities discussion and lecture, this course introduces concepts of perception, emotions, nonverbal communication, listening, defensiveness and relational conflict. Students develop a wareness of communication styles and skills to enhance their interpersonal effectiveness in professional and personal relationships.

COMM 223 Introduction to Nonverbal Communication Studies

3 credit hours

(Recommended: ENG 101) This course introduces nonverbal communication through lecture, discussion, small-group activities and observation. The course examines how the face and eyes, gestures, touch, voice, physical appearance, space, time and environment communicate in personal and professional interactions.

COMM 225 Small-Group Communication Studies 3 credit hours (Recommended: ENG 101) This course teaches theory and skills involved in small-group processes through participation. The course includes group types, characteristics, dynamics, conflicts, norms, roles, leadership, problem solving and decision making.

COMM 232 Business and Professional Communication Studies

3 credit hours

(Recommended: ENG 101) This class introduces interpersonal and group principles and skills needed to communicate effectively in business and other 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 credit hours (Recommended: ENG 101) This course provides an introduction to communication and organizational theory. Communication networks, power and authority, manager/employee relationships, leadership and interviewing are examined.

COMM 270 Communication Studies for Teachers 3 credit hours (Recommended: ENG 101) This course emphasizes a systems approach to classroom 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 290 Gender Communication Studies 3 credit hours (Recommended: ENG 101 and COMM 221) The focuses of this course are understanding the communication differences that exist between men and women, examining the implications and consequences of these differences and discussing various strategies for change. The course examines verbal and nonverbal differences in business, media, educational and interpersonal contexts.

COMM 291 Intercultural Communication Studies 3 credit hours (Recommended: ENG 101 and COMM 221) This course focuses on culture and the differences in communication values and styles, both verbal and nonverbal, between persons from various cultures. Skills for more effective intercultural communication are presented and practiced.

COMM 292 Family Communication Studies 3 credit hours (Recommended: ENG 101 and COMM 221) 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 credit hours (Recommended: ENG 101 and COMM 221) Various topics are offered.

CSCI 101 Computer Literacy 4 credit hours
This course covers introductory computer hardware and software topics with a mixture
of lecture and hands-on instruction. Software topics include word processing, spreadsheets, databases and DOS among others. Students use popular software (e.g., WordPerfect
and Lotus 1-2-3) for some of their work. Students are expected to spend time as necessary in the lab outside of class time. Typing proficiency is useful but not required.

CSCI 155L Introduction to Computer Programming 4 credit hours (Prerequisite: MATH 121 with a minimum grade of B or MATH 139 or 150) This course is an introduction to the skill of computer programming. The main objective is understanding the relationship between programming and problem solving, using programs written in C and C++.

CSCI 163 Intermediate Computing 3 credit hours (Prerequisites: CSCI 101 and MATH 119 or 120) This class quickly reviews the core material from CSCI 101, then covers more advanced uses of software available at T-VI. Topics include desktop publishing, Internet, graphics and understanding data formats. The class requires an independent study project on a topic of the student's choice related to work or education.

CSCI 296 Topics in Computer Science 1=3 credit hours Various topics are offered.

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 credit hours

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 credit hours

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 credit hours

Various topics concerning economic theory, research or statistical analysis and economists are offered.

ENG 101 College Writing

3 credit hours

(Prerequisite: One of the following: English ACT score of 17-24 if taken before November 1989 or 19-28 if taken after November 1989, ASSET, passing ENG 100 or passing English proficiency exam and first-day diagnostic exam) This is a course in text-based essay composition. Assignments include critical reading, summary writing and synthesis. Students must earn a grade of C or higher on the final exam to pass the course; passing the final does not guarantee that students will pass the course.

ENG 102 Analytic and Argumentative Writing 3 credit hours

(Prerequisite: ENG 101 or a minimum English ACT score of 25 if taken before November 1989 or 29 if taken after November 1989) This is a course in analytic and argumentative essay writing with readings in exposition and literature. Students prepare and submit research papers on topics of their own choosing. Students must earn a grade of C or higher on the final exam to pass the course; passing the final does not guarantee that students will pass the course.

ENG 119 Technical Communications

3 credit hours

(Prerequisite: ENG 101 or a minimum English 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 include descriptive and process analyses, informal reports and proposals, short logs/reports for lab and field work, basic production of graphics, letter writing and oral presentations.

ENG 150 Study of Literature

3 credit hours

(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 credit hours

(Prerequisite: ENG 101 or permission of instructor) Screenings and critical discussion of major films supplement this study of film as literature. Students survey major trends in the history of film.

ENG 211 Topics in Literature

1-3 credit hours

(Prerequisite: ENG 101 or permission of instructor) Various topics—including the American novel, the short story, quest romances, Native American literature and women's fiction—are offered.

ENG 212 Topics in Language and Writing 1-3 credit hours (Prerequisite: ENG 101 or permission of instructor) Various topics are offered.

ENG 213 Film Genres

3 credit hours

(Prerequisite: ENG 101 or permission of instructor) This course surveys various film genres or national cinemas.

ENG 219 Technical Writing

3 credit hours

(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 credit hours

(Prerequisite: ENG 102) This course is a study of advanced composition. It concentrates on critical reading of literary prose and writing expository and argumentative essays. Fall term only.

ENG 221 Creative Writing: Fiction

3 credit hours

(Prerequisite: ENG 101 or permission of instructor) Student work is supplemented by texts and discussion of writing as a creative process.

ENG 222 Creative Writing: Poetry

3 credit hours

(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 credit hours

This course is a survey of traditional grammar. Students are introduced to linguistic terminology and methods for identifying and understanding parts of speech, parts of sentences and basic sentence patterns.

ENG 251 Introduction to Dramatic Literature 3 credit hours

(Prerequisite: ENG 101 or permission of instructor) This course introduces students to the structure and nature of drama as a literary form. Students read, analyze and discuss Greek, Renaissance, Enlightenment and modern plays. Winter term only.

ENG 270 Modern Literature

3 credit hours

(Prerequisite: ENG 101 or permission of instructor) American and European literature of the twentieth century is introduced through works by authors such as Ibsen, Chekhov, Joyce, Camus, Conrad, Woolf, Faulkner and Hemingway.

ENG 282 Modern Latin American Literature 3 credit hours (Prerequisite: ENG 101 or permission of instructor) Chronicles, diaries, drama, poetry, essays and fiction of Latin America are surveyed with emphasis on cross-cultural relations between Latin American life and literature.

ENG 294 Survey of Earlier English Literature 3 credit hours (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 credit hours (Prerequisite: ENG 101 or permission of instructor) From the romantic poetry of Burns and Wordsworth to the modernist writings of Hardy, Woolf and Eliot, this course surveys the best of English literature from the late eighteenth century to the present. Winter term only.

ENG 296 American Literature

3 credit hours

(Prerequisite: ENG 101 or permission of instructor) Students survey literature from colonial to present times. Short stories, poetry, drama and nonfiction are emphasized.

FREN 101 Beginning French I

4 credit hours

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 Beginning French II

4 credit hours

(Prerequisite: FREN 101 or permission of instructor) This course continues developing the skills introduced in FREN 101.

FREN 103 Beginning French I Conversation

3 credit hours

(Pre- or corequisite: FREN 101, FREN 102 or permission of instructor) This course provides practice in speaking at the beginning level. It is designed to give students basic conversational skills.

FREN 201 Intermediate French I

3 credit hours

(Prerequisite: FREN 102 or permission of instructor) This course which builds upon FREN 102 is designed to polish acquired skills while broadening the student's knowledge of the language and culture of France.

FREN 202 Intermediate French II

3 credit hours

(Prerequisite: FREN 201 or permission of instructor) This course is a continuation of FREN 201.

FREN 203 Intermediate French II Conversation 3 credit hours

(Pre- or corequisite: FREN 201, FREN 202 or permission of instructor) This course encourages the use, development and strengthening of conversation by using the most recent materials available.

GEOG 101 Physical Geography

3 credit hours

This course introduces students to the geography of natural environments: 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 credit hours

Students are introduced to the cultural landscape: population, migration, languages, religions, folk customs, political units, economic development, agriculture, industry and urbanization. Systematic analysis of global environmental issues is presented.

GEOG 201 World Regional Geography

3 credit hours

This approach to global geography emphasizes regional characteristics, similarities and differences. 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 credit hours

Various topics are offered.

GNHN 121A General Honors: The Ancient Legacy 3 credit hours

(Prerequisite: Permission of instructor; see Arts & Sciences counselor for information.) Through discussion and writing, this seminar analyzes classic texts of the Greek, Hebrew, Roman and Christian traditions. Students consider ideas about virtue, knowledge, politics, religious faith and education. Fall term only.

GNHN 121M General Honors: The Modern Legacy 3 credit hours

(Prerequisite: Permission of the instructor; see Arts & Sciences counselor for information.) This seminar reads classic texts of Western culture from the Renaissance through the nineteenth century. Students explore ideas about the individual, society, state, history, nature, progress and religion which are characteristics of modernity. Winter term only.

GNHN 221 Topics in General Honors

1-3 credit hours

Various topics are offered.

HIST 101 Western Civilization I

3 credit hours

(Recommended: ENG 101) Events, personalities, issues, rises and falls are the focus of this course which covers ancient times through 1648.

HIST 102 Western Civilization II

3 credit hours

(Recommended: ENG 101) This course explores such topics 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 credit hours

(Recommended: ENG 101) 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 credit hours

(Recommended: ENG 101) A continuation of HIST 161, this course covers the period from 1865 to the present.

HIST 230 20th-Century Russia:

3 credit hours

Revolution, Repression and Reform

(Recommended: ENG 101) This course leads students through this turbulent century of Russian history—from czarist absolutism through communist totalitarianism to the tentative introduction of a pluralist society.

HIST 240 Vietnam: War, Politics and Culture 3 credit hours (Recommended: ENG 101) Students examine the causes of the war, the military and political aspects, its conduct and the consequences of the years of conflict in Vietnam on the Vietnamese people, the U.S. and other nations. Students explore issues surrounding U.S. involvement in Vietnam and assess the changes wrought in the culture, institutions and political thought of the U.S. during and after the war.

HIST 260 History of New Mexico 3 credit hours (Recommended: ENG 101) This course explores New Mexico's history from 1500 to the present. The contributions of and interactions among Native Americans, Hispanics, Anglos and others receive special attention.

HIST 270 The American West

3 credit hours

(Recommended: ENG 101) This course explores American settlement west of the Mississippi River through such topics as exploration, the fur trade the overland trails, ranching, mining, contacts with Native Americans, frontier violence and environmental issues.

HIST 282 Modern Latin American History 3 credit hours (Recommended: ENG 101) 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 credit hours

Various topics are offered.

HUM 111 Comparative Civilizations

3 credit hours

This course introduces the history, art, literature, religion and ideas of early civilizations, including Egypt, Mesopotamia, India, China, Greece, Rome, Africa and pre-Columbian America.

HUM 121 Western Culture from the Renaissance 3 credit hours
This course examines the history, art, literature, music and ideas of Western culture from
the Renaissance to the present.

HUM 247 Topics in Humanities

1-3 credit hours

Various interdisciplinary topics are offered.

MATH 111 Mathematics for Elementary and Middle School Teachers I

3 credit hours

(Recommended: Familiarity with elementary algebra) Prospective and current teachers of mathematics are introduced to the intuitive and logical background of arithmetic, properties of sets, algorithms of arithmetic, 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 credit hours

(Prerequisite: MATH 111) Continuing from MATH 111, this course introduces the properties of the rational number system, extension to irrationals, decimal and fractional representation of real numbers and intuitive geometry and measurement.

MATH 119 Methods of Problem Solving

3 credit hours

(Prerequisite: One of the following: ACT [see p. 18 for scores], ASSET, MATH 100 or passing algebra placement exam) Strategies and techniques for solving general problems are developed. This development includes an introduction to sequences and enumeration systems and topics from symbolic logic, number theory, algebra and combinatorics.

MATH 120 Intermediate Algebra

4 credit hours

(Prerequisite: One of the following: ACT [see p. 18 for scores], ASSET, MATH 100 or passing algebra placement exam) This course reviews fundamental concepts and operations with real numbers, covers linear equations and inequalities, polynomials, exponents and radicals, rational expressions and equations, and includes graphing of lines. Lectures are supplemented by collaborative learning and directed problem solving.

MATH 121 College Algebra

3 credit hours

(Prerequisite: MATH 120 or algebra placement exam or a minimum math ACT score of 25 if taken before November 1989 or 26 if taken after November 1989) This course focuses on functions and their graphs. Linear, quadratic, polynomial, exponential and logarithmic functions are investigated.

MATH 123 Trigonometry

2 credit hours

(Prerequisite: MATH 121 or MATH 150 or permission of instructor or trigonometry placement exam or a minimum math 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 credit hours

(Prerequisite: MATH 120 or algebra placement exam or a minimum math 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 139 Introduction to Finite Math

3 credit hours

(Prerequisite: MATH 119 or MATH 120) This course is an introduction to finite mathematics. Topics include elementary mathematical logic, set theory, probability theory, vector and matrix theory, statistics and linear programming.

MATH 145 Introduction to Probability and Statistics

3 credit hours

(Prerequisite: MATH 119 or MATH 120 or algebra placement exam or a minimum math 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. Some outside computer assignments are required.

MATH 150 Advanced Algebra

4 credit hours

(Prerequisite: MATH 121 or algebra placement exam or a minimum math ACT score of 25 if taken before November 1989 or 26 if taken after November 1989) This course emphasizes polynomial, rational, exponential and logarithmic functions with the aid of graphing calculators and computers. Calculators are provided; no prior computing skills are necessary.

MATH 162 Calculus I

4 credit hours

(Prerequisites: MATH 150 or 150C or algebra placement exam and MATH 123 or trigonometry exam; or corequisite: MATH 123) This course is a study of derivatives and integrals. Concepts include formal differentiation and theory of integration, limits, continuity, extrema and curve sketching.

MATH 163 Calculus II

4 credit hours

(Prerequisite: MATH 162) This course covers differentiation and integration techniques with applications involving transcendental functions, numerical integration techniques, solving simple differential equations and improper integrals. The course also includes the study of infinite series, including Taylor series.

MATH 180 Elements of Calculus I

3 credit hours

(Prerequisite: MATH 121, MATH 150 or 150C or algebra placement exam) Students briefly review functions and their graphs. Limits, derivatives as a rate of change, applications to graphing, maxima, minima, antiderivatives, definite integrals and exponential and logarithmic functions are introduced. Business and biological applications are emphasized.

MATH 181 Elements of Calculus II

3 credit hours

(Prerequisite: MATH 180) A continuation of MATH 180, this course covers integration by parts, numerical integration, multivariate calculus and simple differential equations. Additional topics include sequences, series and probability.

MATH 245 Fundamentals of Probability and Statistics 3 credit hours (Prerequisite: MATH 180) This course covers some of the basic ideas in probability and statistics: descriptive statistics, sample spaces, random variables, probability densities, variance, correlation, confidence intervals and hypothesis testing. Applications to business are emphasized.

MATH 245L Business Statistics Laboratory

1 credit hour

(Pre- or corequisite: MATH 245 or permission of instructor) This course applies probability and statistics topics developed in MATH 245 to management and administrative problems and processes.

MATH 264 Calculus III

4 credit hours

(Prerequisite: MATH 163) 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 credit hours

Various topics are offered.

MUS 103 Fundamentals of Music

3 credit hours

(Recommended: experience with voice or instrument) A beginning course in the fundamentals of music, this course 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 credit hours

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 credit hours

Students expand their abilities to listen actively through the study of symphonic music, chamber music and vocal literature from the Romanic period to the twentieth century. The course content is different from MUS 139. Students are required to attend live musical performances.

MUS 296 Topics in Music Various topics are offered.

1-3 credit hours

NUTR 120 Personal and Practical Nutrition

3 credit hours

As a practical application of nutrition principles for the nonscience major, this course focuses on current issues and nutritional concerns to the consumer. Each topic emphasizes how nutritional needs vary within the stages of the life cycle.

NUTR 125 Nutrition

3 credit hours

An introduction to nutrition as it affects normal body functions and total health. Topics include basic nutrition, science concepts, consumer concerns and food selection, metabolic processes, weight control, fitness and review of nutrition in the life cycle. Application of basic math and science principles will be needed. A computerized dietary and activity analysis is a course requirement.

NUTR 293 Topics in Nutrition

1-3 credit hours

Various topics are offered.

PHIL 110 Introduction to Philosophical Thought 3 credit hours. This is a survey of the philosophical issues addressed by great thinkers of the Western tradition: values, knowledge, reality, society, politics and religion. Some time is given to non-Western philosophies as well.

PHIL 156 Logic and Critical Thinking

3 credit hours

This course provides the tools of reason which are helpful in everyday decision-making and 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 credit hours

Various topics on a major philosophic issue, system, movement or figure are offered.

PHIL 245B Business Ethics

3 credit hours

Ethical problems in the field of business—such as corporate takeovers, insider trading, conflicts of interest, employer/employee relations and "whistle-blowing"—are examined from widely different ethical perspectives.

PHIL 245M Biomedical Ethics

3 credit hours

Ethical problems in the fields of medicine and bio-research—such as euthanasia, genetic experimentation, informed consent and abortion—are examined from widely different ethical perspectives.

PHIL 245T Ethics of Technology

3 credit hours

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 are examined from widely different ethical perspectives.

PHIL 250 Philosophy of Education

3 credit hours

This course provides a critical examination of classical and contemporary educational theories espoused by such philosophers as Plato, Aristotle, Aquinas, Hegel, Rousseau, Marx, Dewey, Skinner and Friere. Movements in education—idealism, realism, Thomism, experimentalism, existentialism and behaviorism—are investigated as well. Students formulate and critique their own philosophies of education.

PHIL 257 Formal Logic

3 credit hours

This course introduces formal deductive logic. Topics include propositional logic, truth tables, argument forms and fallacies, predicate (symbolic) logic and method of proof. A student may take this course after completing PHIL 156, but 156 is not a prerequisite.

PHYS 102 Introduction to Physics

3 credit hours

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 use a minimum of elementary mathematics at the level of MATH 100.

PHYS 151 Physics I

3 credit hours

(Prerequisite: MATH 121, MATH 150 or MATH 180. Corequisite: PHYS 153L. Recommended: Coenrollment in PHYS 157 and working knowledge of trigonometry) Through lectures and demonstrations, this course is a non-calculus treatment of mechanics, sound and heat. This course satisfies premedical, predental, preoptometry and certain Technologies requirements.

PHYS 152 Physics II

3 credit hours

(Prerequisite: PHYS 151. Corequisite: PHYS 154L. Recommended: Coenrollment in PHYS 158) Using lecture and demonstration, this non-calculus course presents electricity, magnetism and optics.

PHYS 153L Physics I Lab

1 credit hour

(Corequisite: PHYS 151) Real-time experiments give each student a better conceptual framework for understanding mechanics, heat and cound. Computers are used extensively for data collection and analysis.

PHYS 154L Physics II Lab

1 credit hour

(Corequisite: PHYS 152) This laboratory course features experiments in electricity, magnetism and optics. Computers are used for simulations and some data collection and analysis.

PHYS 157 Problems in Physics I

1 credit hour

(Corequisite: PHYS 151) Recitation and problem solving related to PHYS 151 are handled. Available on an audit basis only.

PHYS 158 Problems in Physics II

1 credit hour

(Corequisite: PHYS 152) Recitation and problem solving related to PHYS 152 are handled. Available on an audit basis only.

PHYS 160 General Physics I

4 credit hours

(Pre- or corequisite: MATH 162. Recommended: Coenrollment in PHYS 163L and PHYS 167) A calculus-based study of mechanics and sound waves is offered for science and engineering students. Topics and demonstrations include Newton's laws of motion, force, moments, friction, work, energy, power, momentum and mechanical wave properties.

PHYS 161 General Physics II

4 credit hours

(Prerequisite: PHYS 160. Pre- or corequisite: MATH 163. Recommended: Coenrollment in PHYS 168) Calculus-based treatment of heat, electricity and magnetism is supplemented by demonstrations.

PHYS 163L General Physics Lab

1 credit hour

(Pre- or corequisite: PHYS 160) Real-time experiments enhance students' conceptual understanding of mechanics and waves. Computers are used extensively for data collection and analysis.

PHYS 167 Problems in General Physics I

1 credit hour

(Corequisite: PHYS 160) Recitation and problem solving related to PHYS 160 are handled. Available on an audit basis only.

PHYS 168 Problems in General Physics II

1 credit hour

(Corequisite: PHYS 161) Recitation and problem solving related to PHYS 161 are handled. Available on an audit basis only.

PHYS 262 General Physics III

4 credit hours

(Prerequisite: PHYS 161. Pre- or corequisite: MATH 264) This course, the third in the calculus-based sequence for science and engineering students, is a study of optics and topics in modern physics.

PHYS 267 Problems in General Physics III

1 credit hour

(Corequisite: PHYS 262) Recitation and problem solving related to PHYS 262 are handled. Available on an audit basis only.

PSCI 110 The Political World

3 credit hours

This introduction to politics emphasizes how people can understand their own political systems and those of others.

PSCI 200 U.S. Politics

3 credit hours

This course is a survey of American politics, including the theory of democracy and political institutions, governmental branches and their bureaucracies.

PSCI 210 State and Local Politics

3 credit hours

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 credit hours

This course compares the roles of public opinion, electoral systems, political parties, interest groups, governmental institutions and policy performance in European democracies, developing third-world nations and communist political systems.

PSCI 240 International Politics

3 credit hours

Students analyze various significant factors in international politics, including nationalism, ideology, deterrence, balance of power, international law, and international conflict and collaboration.

PSCI 260 Political Ideas

3 credit hours

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 credit hours

Various topics are offered.

PSY 105 Introduction to Psychology

3 credit hours

Students are introduced to psychology as a science: the study of behavior and mental processes. Topics surveyed include methodology, psychobiology, learning, memory, psychological disorders, therapy and social psychology.

PSY 106L Introduction to Psychology Lab

1 credit hour

(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. This class meets for three hours each week.

PSY 200 Statistical Principles

3 credit hours

(Prerequisite: PSY 105) Students are introduced to basic statistical principles for description and interpretation of psychological data. Topics include frequency distributions, graphing, measures of central tendency, variability, regression, correlation, hypothesis testing and analysis of variance. Fall and winter terms only.

PSY 220 Developmental Psychology

3 credit hours

(Prerequisite: PSY 105) This 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 credit hours

(Prerequisite: 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 credit hours

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 credit hours

(Prerequisite: 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.

PSY 240 Brain and Behavior

3 credit hours

(Prerequisite: PSY 105 or BIO 121/121L) This course surveys the role of the nervous system in the control of behavior and mental processes. Fall term only.

PSY 260 Psychology of Learning and Memory 3 credit hours

(Prerequisite: 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 265 Cognitive Psychology

3 credit hours

(Prerequisite: PSY 105) This course presents theories and research on various mental processes: memory encoding, storage and retrieval; attention, comprehension, categorization, reasoning, problem solving, language and motor skills. Winter term only.

PSY 271 Social Psychology

3 credit hours

(Prerequisite: PSY 105 or SOC 101) This course presents topics on social interaction: communication, perception of the self and others, attitudes and leadership. Winter term only.

PSY 296 Topics in Psychology

1-3 credit hours

Various topics on the work of an influential psychologist, a school of psychology or an area in psychology are offered.

PSY 299 Death and Dying

3 credit hours

Designed to give students a deeper understanding of the psychological, emotional and sociological aspects of death in American culture, this course uses a variety of learning methods, including lectures, experiential exercises, class projects and guest speakers.

RLGN 107 Living World Religions

3 credit hours

Major living world religions are introduced: Buddhism, Christianity, Hinduism, Islam and Judaism.

RLGN 247 Topics in Religious Studies

1-3 credit hours

Various topics are offered.

SOC 101 Introduction to Sociology

3 credit hours

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 credit hours

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 credit hours

(Prerequisite: SOC 101) This course provides an analysis from a sociological perspective of a range of problems in contemporary U.S. society: racism and prejudice, crime and delinquency, mental disorders, family changes, poverty and substance abuse.

SOC 212 Juvenile Delinquency

3 credit hours

(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 credit hours

(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 credit hours

(Prerequisite: SOC 101) This course covers the theory, practice and legal basis for the investigation, treatment and supervision of offenders in custody and on probation or parole. Included are the history of penology and its relationship to various penal philosophies.

SOC 215 Criminology

3 credit hours

(Prerequisite: SOC 101) The causes of crime are covered with emphasis on sociological factors, the various faces of crime, the criminal, past and present criminology theory.

SOC 216 Ethnic and Minority Groups

3 credit hours

(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 225 Sociology of the Family

3 credit hours

(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 credit hours

(Prerequisite: SOC 101 or PSY 105) This course introduces topics in social psychology such as personality theories, concepts of self, human relationships, small-group dynamics and organizational theories.

SOC 235 The Sociology of Gender

3 credit hours

(Prerequisite: SOC 101 or PSY 105) This course focuses on the nature and content of gender in the U.S. Theoretical viewpoints from the social sciences are applied to issues of socialization, family, culture, media, education, work, politics and economics. The impact of gender differentiation on personality development and social interaction is also a theme in the course.

SOC 280 Social Science Research

3 credit hours

(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 credit hours

Various topics exploring an issue in sociology or the work of an influential sociologist are offered.

SPAN 101 Beginning Spanish I

4 credit hours

(Prerequisite: first-day diagnostic exam) Designed for students with no previous exposure to Spanish, this course develops listening, speaking and grammatical skills.

SPAN 102 Beginning Spanish II

4 credit hours

(Prerequisite: SPAN 101 or Spanish placement exam) Students continue to develop listening and grammatical skills. Emphasis is placed on speaking.

SPAN 103 Beginning Spanish I Conversation 3 credit hours (Prerequisite: SPAN 101 or permission of instructor) This course provides practice in speaking Spanish at the beginning level. It is designed to give students basic conversational skills.

SPAN 111 Beginning Spanish I for Bilinguals 4 credit hours (Prerequisite: Spanish placement exam) This course is designed for students who begin

classes with some native listening and speaking knowledge. The objective is to enrich and expand the skills that exist within the student's dialect. A total language arts approach is employed; listening, speaking, reading, writing and culture.

SPAN 112 Beginning Spanish II for Bilinguals 4 credit hours

(Prerequisite: SPAN 111 or a placement exam at entry) This course is a continuation of SPAN 111. The objectives are to continue expanding on the language and culture skills by means of a total language arts approach; however, emphasis is on reading and writing.

SPAN 201 Intermediate Spanish I

3 credit hours

(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 credit hours

(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 II Conversation 3 credit hours

(Pre- or corequisite: SPAN 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 202.

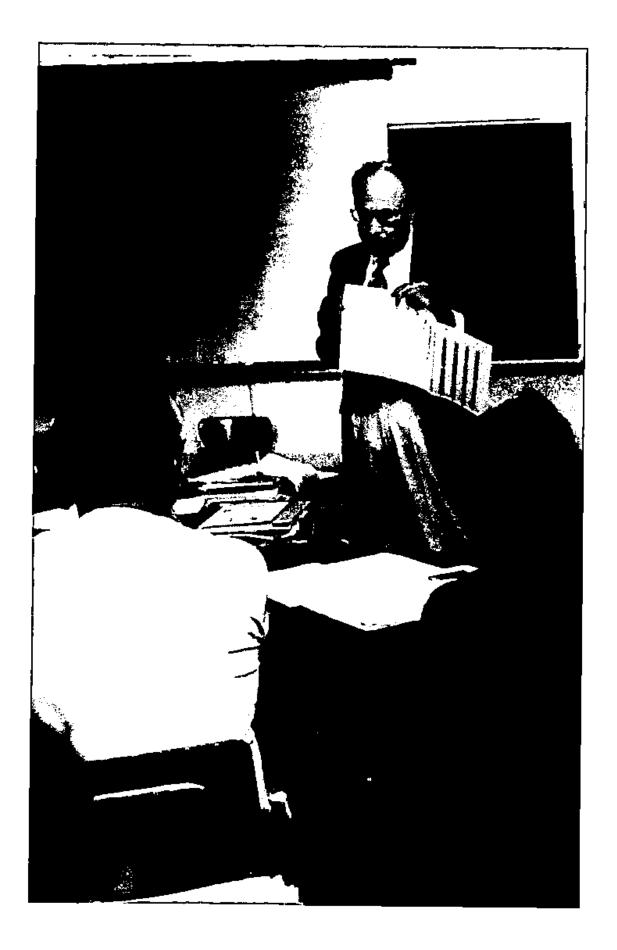
SPAN 275 Accelerated Beginning Spanish 3 credit hours

(Prerequisite: Spanish placement exam or permission of instructor) This course covers the material of SPAN 101 and 102 in one term. It is recommended for language enthusiasts or those who have had exposure to Spanish either in the home or from previous study.

SPAN 276 Accelerated Intermediate Spanish 3 credit hours (Prerequisite: SPAN 102, SPAN 275, Spanish placement exam or permission of instructor) This course covers the material of SPAN 201 and 202 in one term. It is recommended for language enthusiasts or those who have had exposure to Spanish either in the home or from previous study.

SPAN 296 Topics in Spanish 1-3 credit hours (Prerequisites vary.) Various topics in Spanish language and literature are offered.





Business Occupations

T-VI's Business Occupations Department offers students a variety of ways to prepare for and advance in careers in the diverse world of business. In addition to certificate and degree programs, there are college credit courses, professional advancement courses and self-paced learning.

In 1994-95 the Business Occupations Department offers the following certificate/degree programs: Accounting; Administrative Assistant; Business Administration with concentration options in international business, merchandising, small business management, real estate, tourism and hospitality, and general business; Court Reporting; and Microcomputer Management Specialist.

One-term programs are Sales and Cashiering (certificate) and Entrepreneurship. Associate degrees in Legal Assistant Studies and Pre-Management are available. Courses required and approved by the New Mexico Real Estate Commission and New Mexico Appraisers Board for pre-licensing and continuing education are offered.

The Business Occupations Learning Center (BOLC) at each campus offers non-credit, self-paced courses.

The Small Business Development Center (SBDC) joined the Business Occupations Department in July, 1993. The SBDC offers counseling and public workshops for small business owners and employees.

Applications are accepted every term for all programs; however, not all programs are offered at all campuses. A student who registers for a Business Occupations program may be required to take English, reading and/or math placement tests. Advanced students may earn credit for on-the-job training through cooperative education and internship courses.

Albuquerque T-VI has an articulation program with several high schools in Albuquerque through which students may earn T-VI credit for some of their high school

courses. High school students may earn credit that will apply to an associate degree in Accounting, Administrative Assistant or Business Administration.

Credit by examination is available for selected courses. Challenge examinations are administered in the BOLC at each campus for a \$15 fee (see page 19). Counselors and program advisors have detailed information. Challenge exam credit may not be accepted by other postsecondary institutions.

All textbooks and consumable books must be purchased by students enrolled in credit courses and are available in the T-VI bookstores.

BUSINESS OCCUPATIONS LEARNING CENTERS

Self-Paced, Non-Credit, 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. Although college credit is not given for these courses, a certificate is granted upon completion of a course. Instruction is offered on up-to-date equipment including 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 and 7:30 a.m. to 4:30 p.m. on Friday. The Montoya Campus center is open on Saturday from 9 a.m. to 1 p.m. The fee is \$40 per course.

BOLC Subject/Skill Areas

Accounting Fundamentals
Business Mathematics Fundamentals
Electronic Calculators
English Review (Grammar, Punctuation, Spelling)
Filing
Machine Transcription*
Medical Terminology
Medical Transcription*
Microcomputer Courses*
Introduction to Microcomputers
Fundamentals of DOS
Lotus 1-2-3
WordPerfect
dBase IV
Proofreading

Shorthand Courses

Alphabetic Shorthand I

Gregg Shorthand I

Shorthand Review (ABC and Gregg*)

Spelling

Typing Courses

Keyboarding (computer)

Keyboard Skill-building (computer)*

Course Descriptions

Accounting Fundamentals

This course gives the student a basic understanding of accounting principles and their application.

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, percentages, business formulas, 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.

English Review

Instruction is in grammar, spelling and punctuation.

Filing

This course provides a hands-on approach to the fundamentals of filing. Students file a variety of business documents and learn different filing systems for the office.

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 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.

^{*}See T-VI Catalog or BOLC for prerequisites

Medical Transcription

(Prerequisites: machine transcription skill and 50 net words per minute typing skill) This course develops familiarity with medical terminology and transcription.

Microcomputer Courses

Courses available are Introduction to Microcomputers, Keyboarding, WordPerfect, Lotus 1-2-3 and dBase IV. Computer literacy and a typing speed of 25 wpm are prerequisites for WordPerfect, Lotus and dBase.

Introduction to Microcomputers

This course provides instruction for the first-time user and assumes no previous technical knowledge on the part of the learner.

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Fundamentals of DOS

This course uses an individualized, practical application approach to learning microcomputer systems, DOS commands and file management.

Lotus 1-2-3

Lotus 1-2-3 is a spreadsheet applications program. It is an integrated package combining spreadsheet graphics and databases.

WordPerfect

This course is an individualized approach to learning WordPerfect 5.1.

dBase IV

This course is an individualized approach to database terminology, program management and applications.

Proofreading

This course is an individualized approach that provides rules, instruction and practice needed to improve proofreading skills.

Shorthand Courses

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.

Shorthand Review

This course is for students who have typing and shorthand skills but need review and speed-building. Materials are available for ABC and Gregg.

Spelling

This course consists of seven modules. Each modular lesson uses two cassette tapes: one for instruction and one for testing. The student listens, reads, answers questions, works exercises and spells words, and checks his or her answers.

Typing Courses

Keyboarding (computer)

This course is an individualized approach to developing basic keyboarding and formatting skills. Goals emphasize mastery of the computer keyboard through correct techniques and accuracy. Students work at their own pace to achieve course objectives.

Keyboard Skill-building (computer)

(Prerequisite: BOLC Keyboarding or 30 gross words per minute typing skill) This course improves accuracy and speed using championship individual diagnostic methods.

ACCOUNTING

Associate of Applied Science Degree/ Certificate Program Main, Montoya and Rio Rancho/Intel 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 a certificate and/or an associate of applied science degree. The degree is awarded to students who complete both occupational and Arts & Sciences courses. Several courses may be transferred to four-year institutions (students should consult the program advisor). A certificate is awarded to students who complete the occupational component.

The associate of applied science degree in Accounting is accredited by the Association of Collegiate Business Schools and Programs (ACBSP).

The New Mexico State Board of Public Accountancy accepts many of T-VI's accounting courses for fulfillment of the education requirement for the Certified Public Accountant (CPA) and Certified Management Accountant (CMA) exams. A bachelor's degree is a requirement for both exams.

Students may select from a number of support courses, at least one of which must be an accounting course. A minimum of 12 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, 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, occupational support courses are available in the Developmental Studies Department. In the Accounting program, students do not have the option of taking Business Occupations courses on a credit/no credit basis. All classes may be offered both day and evening if there is sufficient demand.

Supply fees are charged for some courses.

A suggested schedule per term for the occupational component of the associate of applied science degree/certificate program in Accounting includes:

- Term 1: ACCT 101 or ACCT 101A and ACCT 101B, ACCT 111, BA 113, BA 121, BA 131
- Term 2: ACCT 102 or ACCT 102A and ACCT 102B, BA 122, BA 133, BA 150
- Term 3: ACCT 201, ACCT 240, ACCT 260, ACCT 254, BA 211
- Term 4: ACCT 202, ACCT 255, ACCT 280, ACCT elective (one elective required for certificate only)

Accounting Program

Certificate and Degree Requirements

			Credit Hours
ACCT	101A	Accounting Principles I	3
	and		
ACCT	101B	Accounting Principles I	3
	or		
ACCT	101	Accounting Principles I	
ACCT	102A	Accounting Principles II	3
	and		
ACCT	102B	Accounting Principles II	3
	or		
ACCT	102	Accounting Principles II	
ACCT	1 11	Accounting Math	3
ACCT	201	Intermediate Accounting I	4
ACCT	202	Intermediate Accounting II	4
ACCT	240	Tax Accounting I	3
ACCT	254	Electronic Spreadsheets	3
ACCT	255	Computerized Accounting	3
ACCT	260	Cost Accounting	
ACCT	280	Managerial Accounting	
BA	113	Introduction to Business	3
BA	121	Business Communications I	3
BA	122	Business Communications II	3
BA	131	Human Relations (71/2 weeks)	2
BA	133	Principles of Management	3

BA	150	Introduction to Computer Proc	cessing	;3
	or	1		
CSCI	101	Computer Literacy		4
BA	211	Business Law		3
One elect	tive (re	quired for certificate only)		3-4
One ACC	T elec	tive		3
		Total		64–66
		Additional Degree Require	ement	s
ENG	101	College Writing		3
MATH	120	Intermediate Algebra		4
MATH	145	Introduction to Probability and		
COMM	130 o			
Social S	cience/	r 221 or 232 or 240 Humanities Elective		3
		Total		77–79
		Electives		
ACCT	241	Tax Accounting II		3
ACCT	270	Governmental Accounting		
ACCT	271	Auditing		
ACCT	272	Accounting Systems Design		.,
BA	215	Money and Banking		
BA	226	Principles of Finance		3
BA	240	Investments		3
BA	291	Internship		
BA	293	Cooperative Education	•••••	44
BA	294	Cooperative Education I		
BA	295	Cooperative Education II		1
BA	296	Cooperative Education III		
BA	297	Cooperative Education IV		
ECON	200	Macroeconomics		

Course Descriptions

ACCT 101 Accounting Principles I

6 credit hours

(Prerequisites: MATH 099, RDG 099 or equivalent; pre- or corequisite: ACCT 111 or higher math or permission of advisor) This is an introductory course in the theory and practice of accounting. It is intended for the beginning student of business. ACCT 101A plus ACCT 101B are equivalent to this course.

ACCT 101A Accounting Principles I

3 credit hours

(Prerequisites: MATH 099 or equivalent; RDG 099 or equivalent; ACCT 111 or higher math or permission of advisor) This course is a slower-paced equivalent of the first half of ACCT 101. Principles of the double-entry accounting system including recording transactions, adjusting entries, preparing statements, closing accounts of proprietorships and corporations, merchandise and cash accounts, and accounting systems are covered. ACCT 101A plus ACCT 101B are equivalent to ACCT 101.

ACCT 101B Accounting Principles I

3 credit hours

(Prerequisites: ACCT 101A and Acct 111 or permission of advisor) This course is the last half of a slower-paced version of ACCT 101. Accounts receivable, tangible and intangible assets, current and long-term liabilities, and payroll accounting are studied. ACCT 101A and ACCT 101B are equivalent to ACCT 101.

ACCT 102 Accounting Principles II

6 credit hours

(Prerequisite: ACCT 101; corequisite: BA 150) This course examines accounting for corporations, installment notes and bonds, preparing and analyzing financial statements and controlling business operations by managerial and cost accounting, budgeting and tax considerations. ACCT 102A plus ACCT 102B are equivalent to this course.

ACCT 102A Accounting Principles II

3 credit hours

(Prerequisites: ACCT 101 or 101B or equivalent or permission of advisor) This course is the first half of a slower-paced version of ACCT 102. This course covers various aspects of corporate accounting, notes and bonds, departmental accounting and accounting for manufacturing. ACCT 102A plus ACCT 102B are equivalent to ACCT 102.

ACCT 102B Accounting Principles II

3 credit hours

(Prerequisites: ACCT 102A and ACCT 111; corequisite: BA 150) This course is the second half of the slower-paced version of ACCT 102. Cost accounting, job orders, master budgets, profit analysis, standard costs and managerial decisions are studied. ACCT 102A plus ACCT 102B are equivalent to ACCT 102.

ACCT 111 Accounting Math

3 credit hours

(Prerequisite: MATH 099 or equivalent or permission of advisor) This course examines the basic arithmetic operations as they relate to business applications. It familiarizes the student with a wide range of accounting procedures for which math is required and develops touch method skills using electronic calculators.

ACCT 201 Intermediate Accounting I

4 credit hours

(Prerequisite: ACCT 102 or ACCT 102B) 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.

ACCT 202 Intermediate Accounting II

4 credit hours

(Prerequisite: ACCT 201) Accounting for current and long-term liabilities, capital stock transactions, dividends, retained earnings and cash flow statements and analysis are covered in this course.

ACCT 240 Tax Accounting I

3 credit hours

(Prerequisite: ACCT 101 or ACCT 101B) This course examines the fundamental characteristics of federal income taxes as applied to individuals.

ACCT 241 Tax Accounting II

3 credit hours

(Prerequisite: ACCT 240 or permission of advisor) This course examines the income tax aspects of corporations, partnerships, sub-chapter S corporations and fiduciaries. Also examined are the advanced concepts related to individual income taxes, tax planning and estate and gift taxation.

ACCT 254 Electronic Spreadsheets

3 credit hours

(Prerequisites: ACCT 102 or ACCT 102B, BA 150 or CSCI 101 or permission of advisor) This microcomputer lab uses Lotus 1-2-3 for accounting and business applications. A supply fee of \$15 covers printer supplies. (2 theory + 3 lab hours a week)

ACCT 255 Computerized Accounting

3 credit hours

(Prerequisites: ACCT 102 or ACCT 102B, BA 150 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. A supply fee of \$15 covers printer supplies. (2 theory + 3 lab hours a week)

ACCT 260 Cost Accounting

3 credit hours

(Prerequisite: ACCT 102 or ACCT 102B) This course emphasizes job order and process costing systems for construction and manufacturing.

ACCT 270 Governmental Accounting

3 credit hours

(Prerequisite: ACCT 102 or ACCT 102B) This course provides the student with training in fund accounting for governmental and other non-profit entities.

ACCT 271 Auditing

3 credit hours

(Prerequisite: ACCT 102 or ACCT 102B) This 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.

ACCT 272 Accounting Systems Design

3 credit hours

(Prerequisite: ACCT 102 or ACCT 102B) Students design a manual accounting system which includes a chart of accounts, an accounting manual, flow charts, control and support systems and reports to management.

(Prerequisite: ACCT 102 or ACCT 102B) Students learn how accounting data can be interpreted and used for decision making by management in planning and controlling business activities.

ADMINISTRATIVE ASSISTANT

Career in Office Technology

Associate of Applied Science Degree/ Certificate Program Main, Montoya and Rio Rancho/Intel 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. Today's office professional must possess greater technical, administrative and interpersonal skills. The Administrative Assistant program offers training in organizational and interpersonal skills as well as office automation and written communication. Graduates are prepared to function in a highly productive office environment.

The associate of applied science degree in Administrative Assistant is accredited by the Association of Collegiate Business Schools and Programs (ACBSP).

Cooperative education is available. Students should see the program advisor for details.

All occupational courses must be passed with a minimum grade of C to meet prerequisite requirements and certificate or degree requirements. In the Administrative Assistant program, students do not have the option of taking Business Occupations courses on a credit/no credit basis. For students who are undecided about their major, occupational support 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. Students should see the program advisor for more information.

Individuals who have already attained a Certified Professional Secretary (CPS) rating may receive credit hours toward the Administrative Assistant associate of applied science degree. Students may contact the program advisor at either campus for more information about advanced placement.

The associate degree may be transferred to the University of New Mexico for credit toward a bachelor's degree in training and learning technologies (see Administrative Assistant program advisor). All Administrative Assistant courses may be offered day and evening if there is sufficient demand.

Supply fees are charged for some courses.

A suggested schedule per term for the occupational component of the associate of applied science degree/certificate in Administrative Assistant includes:

Term 1: AA 101, AA 102, AA 111, AA 121, BA 131, BA 150, BA 113

Term 2: AA 106, AA 112, AA 122, AA 133

Term 3: AA 200, AA 202, AA 230, AA 250, AA 260, BA 133, BA 157,

AA 205

Administrative Assistant Program

Certificate and Degree Requirements

		1		Credit Hours
AA	101	Beginning Keyboarding		3
AA	102	Keyboard Applications I		3
AA	106	Keyboard Applications II		4
AA	111	Business Math/Calculators		3
AA	112	Office Accounting Procedures		3
AA	121	Office Communications I		3
AA	122	Office Communications II		3
AA	133	Word Processing		3
AA	200	Advanced Word Processing		3
AA	202	Information Processing		
AA	205	Advanced Keyboard Skill-buil	ding	2
AA	230	Office Communications III		
AA	250	Machine Transcription		3
AA	260	Business Procedures		3
BA	113	Introduction to Business		3
BA	131	Human Relations (71/2 weeks)		2
	or		1	
COMM	221	Interpersonal Communications		3
BA	133	Principles of Management		3
BA	150	Introduction to Computer Proc	essing	3
	or		- 1	
CSCI	101	Computer Literacy		4
BA	157	Computer Accounting for Sma	ll Business	(5 weeks) 1
		Computer Elective		
		Total		57-59
		Additional Degree Require	ments	
^I COMM	221	Interpersonal Communications	1	3
ENG	101	College Writing		
		hysical Science Elective or		
_		rmediate Algebra or higher	}	4
		Iumanities Elective		
		Elective		3
				1
		Total		73_75

Electives

AA	105	Keyboard Skill-building	2
AA	134	Shorthand I Gregg	5
or			
AA	135	Shorthand I Alphabetic	3
AA	136	Shorthand II	3
AA	207	Law Office Technology	4
AA	234	Shorthand III	3
AA	293	Cooperative Education	
BA	211	Business Law	
BA	256	Job Search Skills (71/2 weeks)	2
CR	132	Medical Terminology and Anatomy	5
CR	240	Legal Terminology/Procedures	3
MMS	135	Microsoft Word for Windows	3
MMS	154	Desktop Publishing Using WordPerfect (5 weeks)	1
MMS	155	WordPerfect Presentations (5 weeks)	1
MMS	156	WordPerfect Office Software (5 weeks)	, 1
MMS	255	Desktop Publishing	3
MMS	257	Microcomputer Graphics	

Course Descriptions

AA 101 Beginning Keyboarding

3 credit hours

Emphasis is on typing by the touch method and developing speed and accuracy. A minimum typing speed of 25 net words per minute on a five-minute timing should be attained in this course, which has a career focus. Personal computers are used and symbols and numbers are taught. There is a \$15 supply fee for printer supplies. (2 theory + 3 lab hours a week)

AA 102 Keyboard Applications I

3 credit hours

(Prerequisite: AA 101) Basic typing skills are reviewed. Production emphasis is on business letters, reports and forms. A minimum typing speed of 35 words per minute on a five-minute timing should be attained in this course. Skill-building software and personal computers are used in this course. There is a \$20 supply fee for printer supplies. (2 theory + 3 lab hours a week)

AA 105 Keyboard Skill-building

2 credit hours

(Prerequisite: AA 101 or 25 net words per minute typing speed on a five-minute timing) Students with various levels of keyboarding skill may enroll in this course. Evaluation is based on individual speed and accuracy improvement. Skill-building software and personal computers are used. A \$15 supply fee is charged for printer supplies.

¹BA 131 may not substitute for COMM 221.

AA 106 Keyboard Applications II

4 credit hours

(Prerequisite: AA 102, BA 150) A minimum typing speed of 50 words per minute on a five-minute timing should be attained in this course. Emphasis is on continued development of production skills. Skill-building software and personal computers are used. There is a \$20 supply fee for printer supplies. (3 theory + 3 ab hours a week)

AA III Business Mathematics/Calculators 3 credit hours

(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. There is a \$5 supply fee for calculator ribbon and tape.

AA 112 Office Accounting Procedures

3 credit hours

(Prerequisite: AA 111) 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.

AA 121 Office Communications I

3 credit hours

(Prerequisite: RDG 099 or equivalent and ENG 099 or equivalent) This course is an introduction to oral and written communications with emphasis on vocabulary building, spelling, grammar, punctuation, sentence structure, oral expression and listening skills.

AA 122 Office Communications II

3 credit hours

(Prerequisite: AA 121; pre- or corequisite: AA 102) This course is a continuation of AA 121 with greater emphasis on oral communication, punctuation and sentence and paragraph construction. Students receive an introduction to telephone techniques.

AA 133 Word Processing

3 credit hours

(Prerequisites: A minimum typing speed of 35 words a minute on a five-minute timing and BA 150 or CR 133) Students receive instruction in the use of word processing software on the microcomputer. Emphasis is on practical office applications. There is a \$20 supply fee for printer supplies. (2 theory + 3 lab hours a week)

AA 134 Shorthand I (Gregg)

5 credit hours

This introductory course covers the theory and writing of Gregg shorthand. Transcription skills are introduced.

AA 135 Shorthand I (Alphabetic)

3 credit hours

Reading and writing of ABC Stenoscript shorthand are learned. Transcription skills are introduced.

AA 136 Shorthand II

3 credit hours

(Prerequisites: AA 134 or AA 135 or CR 103L and CR 104L or knowledge of theory of a shorthand system and a minimum typing speed of 25 net words a minute on a five-minute timed writing or AA 101 and AA 102) The goal for this course is development of dictation and transcription skills. There is a \$10 supply fee for printer supplies.

AA 200 Advanced Word Processing

(Prerequisites: AA 133 and a minimum typing speed of 50 words a minute on a five-minute timing) Students receive instruction in the use of advanced word processing applications. Emphasis is on practical office applications. There is a \$20 supply fee for printer supplies. (2 theory + 3 lab hours a week)

AA 202 Information Processing

3 credit hours

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3 credit hours

(Prerequisites: AA 106 and AA 133) Advanced instruction is provided in the use of microcomputers. Applications include computerized office applications, electronic spreadsheets and database management. There is a \$15 supply fee for printer supplies. (2 theory + 3 lab hours a week)

AA 205 Advanced Keyboard Skill-building 2 credit hours (Prerequisite: AA 106) A minimum typing speed of 55 words per minute on a five-minute timed writing is required in this course. Skill-building software and personal computers are used to build speed and accuracy. A \$15 supply fee is charged for printer supplies.

AA 207 Law Office Technology

4 credit hours

(Prerequisites: AA 106, AA 133 and CR 240) Instruction is provided on the preparation of mailable legal correspondence and forms from audio tape, typed copy and preprinted forms using the computer. Emphasis is on language usage and on introduction to a variety of formats and documents covering the major fields of law. There is a \$20 supply fee for printer supplies. Offered fall term. (3 theory + 3 lab hours a week)

AA 230 Office Communications III 3 credit hours

(Prerequisites: AA 102, AA 122) Principles of writing and composition of business correspondence are covered. Continued emphasis is on grammar, punctuation, spelling, oral communication and listening skills.

AA 234 Shorthand III

3 credit hours

(Prerequisite: AA 136) The goal for this course is continued development of dictation and transcription skills. There is a \$10 supply fee for printer supplies.

AA 250 Machine Transcription

3 credit hours

(Prerequisites: AA 106, AA 122) Emphasis is on the development of speed and accuracy in transcribing mailable copy. There is a \$15 supply fee for printer supplies. (2 theory + 3 lab hours a week)

AA 260 Business Procedures

3 credit hours

(Prerequisites: AA 106, AA 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.

AA 293 Cooperative Education

4 credit hours

(Prerequisites: AA 106, typing skill of 55 words per minute on a five-minute timed writing and permission of the instructor or academic 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. (1 theory + 9 lab hours a week)

BUSINESS ADMINISTRATION

Associate of Applied Science Degree/ Certificate Program Main, Montoya and Rio Rancho/Intel 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.

Early courses in the program emphasize written and verbal communications, management and accounting principles. Those students completing all core occupational courses may receive business administration certificates.

An associate of applied science degree in Business Administration is awarded to students who complete the occupational requirements, Arts & Sciences components and a concentration in one of six areas: international business, merchandising, small business management, real estate (also see page 140), tourism and hospitality or general business. The associate of applied science degree is accredited by the Association of Collegiate Business Schools and Programs (ACBSP).

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. All courses in the real estate concentration are approved by the New Mexico Real Estate Commission for either pre-licensing or continuing education requirements.

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 12 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 (students should see the 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, occupational support courses are available in the Developmental Studies Department. In the Business Administration program, students do not have the option of taking Business Occupations courses on a credit/no credit basis. Supply fees are charged for some courses.

A suggested schedule per term for the occupational component of the associate of applied science degree/certificate program in Business Administration includes:

- Term 1: ACCT 101 or ACCT 101A and ACCT 101B, ACCT 111, BA 113, BA 121, BA 131
- Term 2: ACCT 102 or ACCT 102A and ACCT 102B, BA 122, BA 133, BA 150
- Term 3: BA 211, BA 222, BA 284, ACCT 254, elective
- Term 4: Concentration options

Business Administration Program

Certificate and Degree Requirements

	Credit Hour	3
101A	Accounting Principles I	3
101B	Accounting Principles I	3
101	Accounting Principles I	6
102A	Accounting Principles II	3
102B	Accounting Principles II	3
102	Accounting Principles II	
111	Accounting Math	3
254	Electronic Spreadsheets	
113	Introduction to Business	3
121		
122	Business Communications II	3
131	Human Relations (7 ¹ / ₂ weeks)	2
133	Principles of Management	3
150	Introduction to Computer Processing	
	101B 101 102A 102B 102 111 254 113 121 122 131 133	101A Accounting Principles I 101 Accounting Principles I 102 Accounting Principles II 102 Accounting Principles II 103 Accounting Principles II 104 Accounting Principles II 105 Accounting Principles II 106 Accounting Math 107 Accounting Math 108 Electronic Spreadsheets 109 Business Communications I 100 Business Communications II 100 Business Communications II

or		i i	
CSCI	101	Computer Literacy	
BA	211	Business Law	
BA	222	Principles of Marketing	
BA	284	Salesmanship	
Approve	d Electi	ve	3-4
• •		Total	
		10131	······································
		Additional Degree Requirement	s
COMM or	221	Interpersonal Communications	
COMM	130 or	232 or 240	3
ECON	200	Macroeconomics or higher level	2
ENG	101	College Writing	
'MATH-		Intermediate Algebra or higher level	
PHIL	245B	Business Ethics	2
Special	Conce	ntration Options for Degree (One	Option Required)
		International Business	
BA	160	Introduction to International Busines	s
BA	162	International Management	
Approve	d Intern	ational Business Elective	
••		Total	
		10tal	14–13
		Merchandising	
		T T	
BA	251	Retail Merchandising Management	
BA	286	Advertising	
Approve	d Electi	ve	 3—
		Total	72–75
			1
		Small Business Management	1
ENTR	101	Entrepreneurship]
BA	226	Principles of Finance	
		-	1
		Total	
		Real Estate (also see page 140)	1.
BA	270	Real Estate Law	1 2
BA	271	Real Estate Practice	
		Estate Elective	1
F F			1
		Total	72–74

Tourism and Hospitality

BA	263	Tourism and the Hospitality Industry	3
BA	267	Hospitality Supervision	3
Approve	d Touris	sm Elective 3-4	
		Total 72-75	5
		General Business	
BA	293	Cooperative Education	4
Two App	roved I	Electives	
		Total 73–75	
		Electives	
ACCT	240	Tax Accounting I	2
ACCT	255	Computerized Accounting	
ACCT	260	Cost Accounting	
ACCT	272	Accounting System Design	
ACCT	280		
		Managerial Accounting	
BA	157	Computer Accounting for Small Business	
BA	160	Introduction to International Business	
BA	162	International Management	
BA	164	International Marketing	
BA	215	Money and Banking	
BA	226	Principles of Finance	
BA	240	Investments	
BA	251	Retail Merchandising Management	
BA	256	Job Search Skills (7 ¹ / ₂ weeks)	
BA	260	Purchasing	
BA	264	Front Office Procedures	
BA	265	Marketing of Hospitality Services	
BA	266	Hotel/Motel Law	
BA	267	Hospitality Supervision	
BA	268	Resort Management	
BA	269	Hotel/Motel Security Management	
BA	272	Real Estate Appraisal	3
BA	273	Real Estate Finance	3
BA	274	Real Estate Investment	3
BA	275	Property Management	3
BA	277	Real Estate Comprehensive Contracts	
BA	278	Real Estate and Taxes	
BA	279	Uniform Standards of Professional Appraisal Practice	
BA	282	Appraising the Single Family Residence	
BA	286	Advertising	
BA	287	Delta Epsilon Chi Competition	

BA	291	Internship4
BA	293	Cooperative Education4
BA	294	Cooperative Education I1
BA	295	Cooperative Education II1
BA	296	Cooperative Education III
BA	297	Cooperative Education IV
MMS	134	WordPerfect for Windows3
MMS	135	Microsoft Word for Windows3
MMS	151	DOS Fundamentals (5 weeks)
MMS	152	LOTUS Fundamentals (5 weeks)1
MMS	153	dBase Fundamentals (5 weeks)1
MMS	154	Desktop Publishing Using WordPerfect (5 weeks) 1
MMS	155	WordPerfect Presentations (5 weeks)1
MMS	156	WordPerfect Office Software (5 weeks)1
MMS	255	Desktop Publishing
MMS	257	Microcomputer Graphics3
MMS	258	Local Area Network (LAN)
		Systems Manager (10 weeks)2
ENTR	101	Systems Manager (10 weeks)
¹ FSMG	101	Operations Management
¹ FSMG	102	Human Resource Management
¹ FSMG	103	Marketing/Cost Control Management3
¹ FSMG	170L	Computers in Food Service
¹ FSMG	198	Cooperative Education4

¹Food Service Management course (see page 279).

Course Descriptions

BA 111 Communications

2 credit hours

(Offered for Trades and Technologies students) Students develop effective communications skills. Course content includes fundamentals of grammar, punctuation and oral communications. Effective expression in basic technical writing is stressed. (71/2 weeks)

BA 113 Introduction to Business

3 credit hours

(Prerequisite: RDG 099 or equivalent) Students recognize the structure of business, business activities and problems. An understanding of the nature of the business world also is stressed.

BA 121 Business Communications I

3 credit hours

(Prerequisites: RDG 099 or equivalent and ENG 099 or equivalent) The student learns to communicate effectively through the study and application of writing fundamentals. Instruction in spelling, grammar, punctuation and sentence structure is included. Students also have the opportunity to develop oral and listening skills

BA 122 Business Communications II

3 credit hours

(Prerequisites: BA 121 and 25 words per minute typing skill) The student learns to write effective business letters, reports and memoranda. Continued use of oral communication and listening skills is stressed.

BA 131 Human Relations

2 credit hours

(Available also for Technologies students) The importance of interpersonal relationships and the work ethic is stressed. Topics covered may include self-awareness, time management, stress management, communications, goal setting and personal management. Study skills are also covered. (71/2 weeks)

BA 133 Principles of Management

3 credit hours

(Prerequisites: RDG 099 or equivalent, BA 113 or permission of advisor) Students learn to apply the basic management functions of planning, organizing, staffing, directing and controlling. Leadership and group process skills are emphasized.

BA 150 Introduction to Computer Processing 3 credit hours

(Prerequisite: 25 words per minute typing skill) Students learn to use automated information systems, computer hardware, data entry and business software applications. Handson experience with microcomputers is provided. A \$15 supply fee is charged for computer paper and printing costs. (2 theory + 3 lab hours a week)

BA 157 Computer Accounting for Small Business 1 credit hour (Prerequisite: AA 112 or ACCT 101 or ACCT 101B or permission of advisor) Students use a comprehensive accounting software program for a small business. The program contains a general ledger, accounts payable, accounts receivable and payroll functions. Students set up the records for a business, open accounts, enter transactions and print end-of-period reports. A \$5 supply fee is charged for computer paper and printing costs.

BA 160 Introduction to International Business 3 credit hours

(Prerequisite: RDG 099 or equivalent) This is an integrated view of objectives, problems and challenges facing those who engage in business in foreign countries. Foreign organizations, cultural dynamics, trade channels, the legal environment and political considerations are examined.

BA 162 International Management

(5 weeks; 2 theory + 3 lab hours a week)

3 credit hours

(Prerequisite: RDG 099 or equivalent) Students survey management practices within diverse international operations and learn to conduct business with people of different cultures.

BA 164 International Marketing

3 credit hours

(Prerequisite: RDG 099 or equivalent) This course provides a conceptual framework for analyzing marketing opportunities abroad. Development and implementation of marketing mixes in different cultures and nations are studied.

BA 211 Business Law

3 credit hours

(Prerequisites: RDG 099 or equivalent and ENG 099 or equivalent) This course provides a basic knowledge of law as it applies to all business dealings in our society. Particular emphasis is on contract law, Uniform Commercial Code, negotiable instruments and alternative dispute resolutions.

BA 215 Money and Banking

3 credit hours

(Prerequisite: ACCT 102 or ACCT 102B) This course covers the history, nature and function of money. Students learn to apply methods of institutional control and theories of monetary policy.

BA 222 Principles of Marketing

3 credit hours

(Prerequisites: BA 113 or permission of advisor) Students learn to apply total marketing concepts from the creation, pricing and promotion of the product to the distribution network.

BA 226 Principles of Finance

3 credit hours

(Prerequisite: ACCT 102 or ACCT 102B) 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.

BA 240 Investments

3 credit hours

(Prerequisite: ACCT 102 or ACCT 102B) Students learn to apply investment analysis and management techniques, to formulate objectives and to look at values and risks.

BA 251 Retail Merchandising Management (

3 credit hours

(Pre- or corequisite: 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.

BA 256 Job Search Skills

2 credit hours

This course provides the requisite skills for success in obtaining employment. Students prepare cover letters and resumes and apply interviewing skills, practice telephone use in the job search, learn test-taking techniques and encourage positive attitudes and self-confidence. (This course is an elective but is strongly recommended.) (7½ weeks)

BA 260 Purchasing

3 credit hours

(Prerequisite: ACCT 101, ACCT 101B 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.

BA 263 Tourism and the Hospitality Industry 3 credit hours

This comprehensive 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 is equivalent to Educational Institute 321.

BA 264 Front Office Procedures

3 credit hours

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 is equivalent to Educational Institute 333.

BA 265 Marketing of Hospitality Services 3 credit hours

Students develop, implement and evaluate a marketing plan and identify and reach prospective customers using marketing tactics specific to hospitality services. This course is equivalent to Educational Institute 371.

BA 266 Hotel/Motel Law

3 credit hours

Students study potential legal problems associated with the hospitality industry and how important legal considerations can affect the industry. This course is equivalent to Educational Institute 391.

BA 267 Hospitality Supervision

3 credit hours

This course focuses on managing people from a supervisor's viewpoint. Topics included are: controlling labor costs, time management, increasing productivity and managing change. This course is equivalent to Educational Institute 251.

BA 268 Resort Management

3 credit hours

This course focuses on principles and practices necessary for successful resort management. Topics include resort history, planning and development, major recreational activities, food and beverage, housekeeping and risk management. This course is equivalent to Educational Institute 424.

BA 269 Hotel/Motel Security Management 3 credit hours

The course content includes setting up the security program, security staffing, responsibilities in guest and asset protection, the accounting function and internal control, computer security and emergency procedures.

BA 270 Real Estate Law

3 credit hours

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 for the New Mexico Real Estate Licensing Exam.

BA 271 Real Estate Practice

3 credit hours

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 for the New Mexico Real Estate Licensing Exam.

BA 272 Real Estate Appraisal

3 credit hours

(Prerequisite: BA 271 or permission of instructor or advisor) 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 uses the American Institute of Real Estate Appraisers (AIREA) 21/G1 teaching module.

BA 273 Real Estate Finance

3 credit hours

(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.

BA 274 Real Estate Investment

3 credit hours

(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.

BA 275 Property Management

3 credit hours

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.

BA 277 Real Estate Comprehensive Contracts 3 credit hours

(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.

BA 278 Real Estate and Taxes

3 credit hours

(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.

BA 279 Uniform Standards of Professional Appraisal Practice

2 credit hours

This course focuses on the requirements for ethical behavior and competent performance by appraisers. The R2/G2 teaching module of the American Institute of Real Estate Appraisers (AIREA) is used. (7^t/₂ weeks)

BA 282 Appraising the Single Family Residence 3 credit hours

(Prerequisite: BA 272) This course provides the student with a working knowledge of the procedures and techniques required to estimate the market value of vacant and improved single family residential property using the American Institute of Real Estate Appraisers (AIREA) teaching module.

BA 284 Salesmanship

3 credit hours

(Prerequisite: RDG 099 or equivalent) Students learn to demonstrate selling skills along with how to promote oneself, goods and services.

BA 286 Advertising

3 credit hours

(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.

BA 287 Delta Epsilon Chi Competition

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.

BA 291 Internship

4 credit hours

1 credit hour

(Prerequisites: ACCT 102 or ACCT 102B and permission of advisor) Students work a minimum of 150 hours at business or training related supervised work stations. Students are not paid for their work but are supervised jointly by T-VI and the company. (1 theory + 9 lab hours a week)

BA 293 Cooperative Education

4 credit hours

(Prerequisites: ACCT 102 or ACCT 102B and permission of advisor) Students work a minimum of 150 hours at business or training related supervised work stations. Student trainees are paid by the cooperating firm and supervised jointly by T-VI and the employer. (1 theory + 9 lab hours a week)

BA 294 Cooperative Education I

1 credit hour

Students employed in an on-going governmental or non-governmental cooperative program enroll in this course for the first term of employment. Students must work a minimum of 40 hours to qualify for credit. Students are paid by the employers and are supervised jointly by T-VI and the employer.

BA 295 Cooperative Education II

1 credit hour

(Prerequisite: BA 294) This course is a continuation of BA 294 for students in their second term of cooperative education.

BA 296 Cooperative Education III

1 credit hour

(Prerequisite: BA 295) This course is a continuation of BA 294 and BA 295 for students in their third term of cooperative education.

BA 297 Cooperative Education IV

1 credit hour

(Prerequisite: BA 296) This course is a continuation of BA 294, 295 and 296 for students in their fourth term of cooperative education.

COURT REPORTING

Associate of 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.

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

Students enrolled in machine shorthand courses are responsible for furnishing their stenotype machines (manual or electric). Rental or purchase arrangements for an educational stenotype machine are available through the T-VI Bookstore. Students may prefer to rent a stenotype machine for CR 103L, Machine Shorthand I. Students must own a stenotype machine prior to enrolling in CR 104L, Machine Shorthand II. Approximate cost for the educational stenotype machine, tripod and carrying case is \$700.

All occupational courses must be passed with a minimum grade of C to qualify for graduation. In the Court Reporting program, students do not have the option of taking courses on a credit/no credit basis. 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.

A suggested schedule per term for the occupational component of the associate of applied science degree/certificate program in Court Reporting includes:

Term 1: BA 121, CR 133, CR 121, CR 103L
Term 2: CR 132, BA 131, CR 105, CR 104L
Term 3: AA 133, CR 210L, AA 111, CR 240
Term 4: CR 220L, CR 250L, ENG 240, BA 211
Term 5: CR 280L, CR 260, CR 291
331L, CR 232L,

Court Reporting Program

Certificate and Degree Requirements

			Credit H	ours
	AA	101	Beginning Typing.	3
	AA	102	Intermediate Typing	3
	AA	111	Business Math/Calculators	3
	AA	133	Word Processing	3
	BA	121	Business Communications I	3
	BA	131	Human Relations (71/2 weeks)	2
	BA	211	Business Law	3
	CR	103L	Machine Shorthand I	7
	CR	104L	Machine Shorthand II	7
	CR	105	Keyboard Skill-building	2
	CR	121	Introduction to Court Reporting (71/2 weeks)	2
	CR	132	Medical Terminology/Anatomy	5
	CR	133	Information Processing Concepts (71/2 weeks)	2
		or		
	CSCI	101 ·	Computer Literacy	4
	CR	210L	Machine Shorthand III	ð
	CR	220L	Machine Shorthand IV	8
	CR	230L	Machine Shorthand V	. 5
	CR	240	Legal Terminology/Procedures	د
/	CR	250L	Computer-Aided Transcription	
	CR	260	Court Reporting Procedures (71/2 weeks)	
	CR	291	Internship	4
\	CR	293	Cooperative Education (optional)	 2
	ENG	240	Traditional Grammar	
1	٠ د	NO.	Total Streethard V 7 1/2 works # 1	33 – 89
	≯ 331 L	14/02	mile exportant	4
	<i>9351</i>	_ 11/0	Additional Degree Requirements	•
			•	

Students do not have the option of taking Arts & Sciences courses on a credit/no credit basis.

ersonal Communications3	221	COMM
•		
ge Writing3	101	ENG
r Biological and Physical Science Elective 3-4	20 or h	MATH 1

Social or Behavioral Science Elective	3
Total	90–97
¹ Required for certificate only	95- 96
Elective CR Machine Shorthand Speed	l-building3
Course Descript	ions ·
·CR 103L Machine Shorthand I	7 credit hours
(Prerequisites: RDG 099 or equivalent equivalent; pre- or corequisite: CR 12 keyboard is learned. Computer-compatit shorthand theory is presented. Computer-	ole, conflict-free machine

transcription supplies. (5 theory + 5 lab hours a week)
CR 104L Hachine Shorthand II 7 cre

7 credit hours

(Prerequisites: CR 103L, CR 121, BA 121) domputer-compatible, conflict-free machine shorthand theory is reviewed in this course: -Vocabulary building is emphasized. This is an open-exit course. Students may advance to CR 210L after reaching 100 wpm. Enrollment is limited to 45 weeks or 3 terms. A \$5 supply fee is charged for transcription supplies. (5 theory + 5 lab hours a week)

to reinforce the theory. A \$5 supply fee is charged for

CR 105 Keyboard Skill-building 2 credit hours (Prerequisite: AA 102) Students are required to take this course to fulfill NCRA's key-

(Prerequisite: AA 102) Students are required to take this course to fulfill NCRA's key-boarding requirement of 60 net words per minute with no more than five errors on a five-minute timed writing. Skill-building software and personal computers are used. A \$15 supply fee is charged for printer supplies.

CR 121 Introduction to Court Reporting 2 credit hours This beginning course presents an overview of the court reporting profession. Information is given on the certification process, testing requirements and the NCRA organization. (7½ weeks)

CR 132 Medical Terminology and Anatomy 5 credit hours (Prerequisite: RDG 099 or equivalent) 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 tapes. A concentrated study of the human anatomy is included.

CR 133 Information Processing Concepts 2 credit hours
This course provides the students with an understanding of computers--how they work,

how they process data to produce useful information and how they can be integrated into the work environment. Students are introduced to word processing, spreadsheet and database applications software. A \$10 supply fee is charged for computer paper and ribbons. $(7^{1}/2 \text{ weeks}; 2 \text{ theory} + 3 \text{ lab hours a week})$

(Prerequisite: CR 104L) Vocabulary building continues to be emphasized and the machine shorthand theory is reviewed. On-the-job considerations are introduced. Speed-building continues using testimony, literary, and jury charge materials. This is an open-entry, open-exit course. Students may advance to CR 220L after reaching 140 wpm. Enrollment is limited to 45 weeks or 3 terms. A \$10 supply fee is charged for transcription supplies. (5 theory + 10 lab hours a week)

CR 220L

Machine Shorthand IV

8 credit hours

(Prerequisites: CR 210L, CR 132) Medical terminology and dictation are emphasized. Vocabulary building and speed-building continue. This is an open-entry, open-exit course. Students may advance to CR 231L after reaching 160 wpm, literary; 170 wpm, jury charge; and 180 wpm, testimony. Enrollment is limited to 45 weeks or 3 terms. A \$10 supply fee is charged for transcription supplies. (5 theory + 10 lab hours a week)

CR CR 233L Machine Shorthand Speed-building 3 credit hourshours

(Pr Prerequisites: (CR 232L or approval by academic advisor) This tation self-paced, elective course is designed for those students who wpm. have reached a minimum speed of 180 wpm literary and 225 wpm.

This testimony and wish to increase speed in preparation for the state puter certification exam. Students take two-, three-, and four-voice testimony and literary dictation from video and audio tapes.

Tests will be administered. This is an open-entry, open-exit course. A \$15 supply fee is charged for tapes and transcription supplies. (9 lab hours a week)

(Prerequisites: CR 220L) Speed-building and vocabulary building are emphasized. This is an open-entry, open-exit course. Students may advance to CR 232L after reaching 180 wpm, literary: 180 wpm, jury charge; and 210 wpm, testimony. Enrollment is limited to 45 wealth or 3 terms. A \$5 supply fee is charged for transcription supplies. (7 1/2 weeks, 5 theory + 10 lab hours a week)

CK 240

Legal Terminology/Procedures

Emphasis is on legal terminology, legal procedures and client relationships.

CR 250L Computer-Aided Transcription (CAT) 3 credit hours (Prerequisites: CR 210L, AA 133) This course provides hands-on training in using the computer to produce transcripts. The student builds a personal dictionary. A \$40 fee is charged for computer-aided transcription hardware and software. (2 theory + 3 lab hours a week)

CR 260 Court Reporting Procedures

3 credit hours

(Prerequisites: CR 220L, CR 250L) Students apply procedures in general courtroom, free-lance reporting and transcript format. Instruction includes the reporting of depositions. Writing skills and techniques for computer-aided transcription are reviewed. Students prepare resumes and acquire interviewing skills. A \$40 supply fee is charged for computer-aided transcription hardware and software and printer supplies. (6 hours a week for 7½ weeks)

CR 291 Internship

2 credit hours

(Prerequisites: CR 220L and CR 250L and approval by academic advisor) Students acquire a minimum of 75 clock hours of practical experience under the supervision of a CR 232L Machine Shorthand VI 4 credit hours

(Prerequisites: CR 231L) Speed-building and vocabulary building are emphasized. This is an open-entry, open-exit course. Students may advance to CR 233L after reaching 200 wpm, literary; 200 wpm, jury charge; and 245 wpm, testimony. Enrollment is limited to 45 weeks or 3 terms. A \$5 supply fee is charged for transcription supplies. (7 1/2 weeks, 5 theory + 10 lab hours a

certified shorthand reporter. The student intern is required to record and transcribe a 40-page salable transcript. This course should be taken in the student's final term.

CR 293 Cooperative Education 4 credit hours (Prerequisite: CR 210L) Students work a minimum of 150 hours in a paid, training-related position. Students are supervised by their employer and T-VI. (1 theory + 9 lab hours a week)

ENTREPRENEUR\$HIP

Main and Montoya Campuses

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The Entrepreneurship course is for persons who plan to open a small business and who own or manage a business and want further training in principles, operations and/or expansion. The instructor works with each student to develop a business plan.

Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits.

ENTR 101 Entrepreneurship

6 credit hours

The instructor meets with each student to determine specific goals, problems or needs. Programs are then tailored to the individual. Tasks and activities are accomplished through lecture, group activities and independent work.

LEGAL ASSISTANT STUDIES

Associate of Applied Science Degree Main Campus

The Legal Assistant Studies program trains qualified men and women for entry into the legal profession. The Legal Assistant Studies program is approved by the American Bar Association (ABA).

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

Employment opportunities include placement in law firms, corporate legal departments, legal aid offices, public agencies, insurance companies, real estate and title insurance firms and other commercial firms.

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, practice 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. Legal Assistant Studies students do not have the option of taking courses on a credit/no credit basis.

Supply fees are charged for some courses.

A suggested schedule per term for the associate of applied science degree program in Legal Assistant Studies includes:

Term 1: LAS 101, LAS 123, CSCI 101 or BA 150, ENG 101, PSY 105

Term 2: LAS 102, LAS 111, LAS 124, ENG 102, MMS 134 or MMS 135

Term 3: LAS 201, LAS 203, LAS 204, PHIL 156, MATH 119

Term 4: LAS 221, LAS 231, LAS 291 or 293, COMM 221 or COMM 225 or COMM 240, support course

Legal Assistant Studies Program

Degree Requirements

Students do not have the option of taking Arts & Sciences courses on a credit/no credit basis.

		•	Credit Hours
BA	150	Introduction to Computer Processing	3
	or		
CSCI	101	Computer Literacy	4

1 221	Interpersonal Communication Studies	3
or	<u> </u>	
1 225	Small Group Communication Studies	3
or		_
	College Writing	3
-		
	Business Organizations	3
	L L	
	Torts	3
204	Legal Research and Writing II	3
221	Wills, Probate and Estate Planning	3
231	Computers in Law Practice	3
291	Internship	4
or		
293	Cooperative Education	4
ective (s	see list below)	3
119	Methods of Problem Solving or higher math course	3
134	WordPerfect for Windows	3
or		
135	Microsoft Word for Windows	3
156		
105	Psychology	3
	Total 61-	-62
	El adissa	
	Electives	
101	Accounting Principles I	6
151	DOS Fundamentals (5 weeks)	1
152	LOTUS Fundamentals (5 weeks)	1
153		
154		
155		
156		
211		
222	Criminal Procedure	. 3
223	Domestic Relations	3
	· ·	
232	Personal Injury: Legal and Medical Acrests	2
	or I 225 or I 240 101 102 101 102 111 123 124 201 203 204 221 231 291 or 293 extive (s 119 134 or 135 156 105	or 1225 Small Group Communication Studies or 1240 Organizational Communication Studies 101 College Writing 102 Analytic Writing 103 Introduction to Legal Assistant Studies 104 Business Organizations 115 American Law and Ethics 126 Torts 127 Torts 127 Legal Research and Writing I 128 Contract Law 129 Contract Law 120 Contract Law 120 Contract Law 121 Wills, Probate and Estate Planning 122 Wills, Probate and Estate Planning 123 Computers in Law Practice 129 Internship 129 Cooperative Education 129 Methods of Problem Solving or higher math course 134 WordPerfect for Windows 135 Microsoft Word for Windows 136 Logic and Critical Thinking 137 Psychology 138 Total 149 Total 150 Psychology 151 DOS Fundamentals (5 weeks) 152 LOTUS Fundamentals (5 weeks) 153 dBase Fundamentals (5 weeks) 154 Desktop Publishing Using WordPerfect (5 weeks) 155 WordPerfect Presentations (5 weeks) 156 WordPerfect Office Software (5 weeks) 157 Real Estate Law for Legal Assistants 158 Constitutional Law: Rights and Liberties 159 Constitutional Law: Rights and Liberties 150 Advanced Civil Litigation

LAS	233	Law Office Management	. 3
LAS	234	Administrative Law	.3
LAS	236	Discrimination/Labor/Employer-Employee Relations.	. 3
LAS	299	Topics Course	. 3
LAS	299A	Mediation	. 3
LAS	299B	Public Defender	. 3

^{*}Pre- or corequisite: ACCT 111 or higher math or permission of advisor

Course Descriptions

LAS 101 Introduction to Legal Assistant Studies 3 credit hours (Prerequisites: ENG 100 or equivalent, RDG 100 or equivalent) This course introduces the student to the definition and role of the legal assistant, ethical responsibilities, human relations, the legal system, legal research and analysis, the process of litigation, technology in the law and topics in substantive law.

LAS 102 Business Organizations 3 credit hours (Prerequisites: BA 150 or CSCI 101, ENG 101, LAS 101, LAS 123) Various types of business entities including sole proprietorships, partnerships and corporations are examined. Also looked at are agency principles, franchising and regulatory requirements.

LAS 111 American Law and Ethics 3 credit hours (Prerequisites: BA 150 or CSCI 101, ENG 101, LAS 101, LAS 123) The origins, nature, history and structure of the American judicial system are studied. Students explore principles of federalism under the Constitution. The rules of professional conduct for lawyers are emphasized.

LAS 123 Torts 3 credit hours (Prerequisites: ENG 100 or equivalent, RDG 100 or equivalent) This is a course in substantive tort law, concentrating on negligence, products liability, non-physical injuries and their remedies and defenses. Students are given an overview of the trial process and complete a project designed to develop practice skills.

LAS 124 Legal Research and Writing I 3 credit hours (Prerequisites: BA 150 or 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 and other computer-assisted legal research. Significant time is spent at the law library.

LAS 201 Contract Law 3 credit hours (Prerequisites: MMS 134 or MMS 135, ENG 102, LAS 102, LAS 111, LAS 124) This is an introduction to the law of contracts, rights and responsibilities, consideration, types of contracts, remedies and assignments. The study, analysis and application of cases are emphasized.

3 credit hours

LAS 203 Civil Litigation, Investigation and Discovery

(Prerequisites: MMS 134 or MMS 135, ENG 102, LAS 102, LAS 111, LAS 124) Students learn the process of litigation from initial client contact through post-trial procedures by preparing litigation documents. Rules of civil procedure and rules of the various courts are reviewed. Students develop a forms and procedures notebook.

LAS 204 Legal Research and Writing II 3 credit hours (Prerequisites: MMS 134 or MMS 135, ENG 102, 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 for Legal Assistants 3 credit hours (Prerequisites: LAS 201, LAS 203, LAS 204 or approval of the academic advisor) This course provides knowledge of the fundamental rights of property ownership, surveys, easements and licenses, deeds, titles, financing, closings and regulations.

LAS 221 Wills, Probate and Estate Planning 3 credit hours (Prerequisites: LAS 201, LAS 203, LAS 204) This course dovers drafting of wills and trusts, administration of estates, formal and informal probate proceedings and estate tax returns.

LAS 222 Criminal Procedure 3 credit hours (Prerequisites: LAS 201, LAS 203, LAS 204 or approval of the academic advisor) 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 credit hours (Prerequisites: LAS 201, LAS 203, LAS 204 or approval of the academic advisor) Legal issues in family relations are explored in this course, with emphasis on local procedures in the domestic relations court.

LAS 224 Evidence 3 credit hours (Prerequisites: LAS 102, LAS 111, LAS 124 or approval of the academic advisor) Students study issues and problems of proof of facts in civil and criminal trials, with a focus on the rules of evidence in the state and federal courts. Emphasis is on constitutional considerations, interviewing witnesses and organizing documents.

LAS 225 Constitutional Law: Rights and Liberties 3 credit hours (Prerequisites: LAS 201, LAS 203, LAS 204 or approval of the academic advisor) This is a course in civil rights and liberties under the Constitution, covering free speech, religious freedom, rights of the accused, racial discrimination, group rights, privacy and political participation.

LAS 230 Advanced Civil Litigation

3 credit hours

(Prerequisites: LAS 201, LAS 203, LAS 204 or approval of the academic advisor) Students become involved in the litigation process by participating in a hypothetical case, completing more sophisticated tasks in litigation. Emphasis is placed on evidence rules, concepts and objections.

LAS 231 Computers in Law Practice

3 credit hours

(Prerequisites: BA 150 or CSCI 101, MMS 134 or MMS 135, LAS 201, LAS 203, LAS 204) Students learn concepts and applications using computers in law practice. Students develop hands-on experience with various law-oriented application programs in the areas of data organization, analysis and retrieval, legal forms, calendar and docket control, reports and searches. A \$15 supply fee is charged for computer paper and printing costs. (2 theory + 3 lab hours a week)

LAS 232 Personal Injury: Legal and Medical Aspects 3 credit hours (Prerequisites: LAS 201, LAS 203, LAS 204 or approval of the academic advisor) This course deals with medical aspects and documentation of personal injuries in the areas of tort, workers' compensation and social security disability.

LAS 233 Law Office Management

3 credit hours

(Prerequisites: LAS 201, LAS 203, LAS 204 or approval of the academic advisor) This course helps prepare the senior legal assistant or legal assistant intending to advance to or function in an administrative position in a law office to coordinate and oversee the administrative needs of a small to medium firm. Students learn managerial techniques, law office systems, revenue tracking, personnel management, crisis resolution and ethical requirements.

LAS 234 Administrative Law

3 credit hours

(Prerequisites: LAS 201, LAS 203, LAS 204 or approval of the academic advisor) Principles relating to policies, practices and procedures of governmental agencies and state and local administrations are included in this course.

LAS 236 Discrimination/Labor/

3 credit hours

Employer-Employee Relations

(Prerequisites: LAS 201, LAS 203, LAS 204 or approval of the academic advisor) 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 291 Internship

4 credit hours

(Prerequisites: LAS 201, LAS 203, LAS 204, all Arts & Sciences courses in the first three terms and approval of the academic advisor) Students work a minimum of 150 hours at legal assistant-related work stations. The student is jointly supervised by T-VI and the employer. (1 theory + 9 lab hours a week)

LAS 293 Cooperative Education

4 credit hours

(Prerequisites: LAS 201, LAS 203, LAS 204, all Arts & Sciences courses in the first three terms and approval of the academic advisor) Students work a minimum of 150 hours at legal assistant-related work stations. The student is paid by the cooperating firm and is jointly supervised by T-VI and the employer. (1 theory +9 lab hours a week)

LAS 299 Topics Course

3 credit hours

(Prerequisites: LAS 201, LAS 203, LAS 204 and approval of the academic advisor) In this course the student chooses an area of study in consultation with an instructor and assists the instructor in documenting the agreement. A sophisticated legal research paper or project is completed. Offered each term.

LAS 299A Mediation

3 credit hours

(Prerequisites: LAS 201, LAS 203, LAS 204 and approval of the academic advisor) Students learn fundamental skills involved in mediating disputes. Training may be provided by local mediation organizations at a student rate. The student also presents a paper and is jointly evaluated by the mediation trainer and the instructor. Offered each term subject to availability of trainers.

LAS 299B Public Defender

3 credit hours

(Prerequisites: ENG 102, LAS 111, LAS 124, MMS 134 or MMS 135 and approval of the academic advisor) Students are assigned to a supervising attorney from the Public Defender's Office and jointly supervised by the attorney and an instructor. The student works 135 hours, documenting his or her time, and becomes familiar with all forms of case preparation with an emphasis on information gathering and investigation. Offered each term subject to availability of supervising attorney.

MICROCOMPUTER MANAGEMENT SPECIALIST

Associate of Applied Science Degree/ Certificate Program Main, Montoya and Rio Rancho/Intel Campuses

The Microcomputer Management Specialist program combines accounting skills with microcomputer concepts and computer application skills including problem solving in a business environment. Students are prepared to advise employers on hardware and software and to serve as training assistants and/or liaisons.

Early courses in the program emphasize written and verbal communications, accounting principles and basic computer skills. An associate of applied science degree is awarded to students who complete the occupational requirements and Arts & Sciences components.

A keyboarding skill of 25 net words per minute is required for entry into the program. Typing courses are available in the Developmental Studies Department, the Business Occupations Learning Centers and Business Occupations Department.

Courses are offered both day and evening. 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. In this program, students do not have the option of taking any Business Occupations courses on a credit/no credit basis.

Supply fees are charged for some courses.

A suggested schedule per term for the occupational component of the associate of applied science degree/certificate program in Microcomputer Management Specialist includes:

Term 1: ACCT 101, ACCT 111, BA 121, BA 150, MMS 151
Term 2: ACCT 102, BA 113, MMS 257, MMS 134, MMS 150
Term 3: ACCT 254, ACCT 255, BA 111, BA 133, MMS 255

Term 4: MMS 258, CP 213, MMS 200, MMS 259

Microcomputer Management Specialist Program

Certificate and Degree Requirements

			Credit Hours
ACCT	101	Accounting Principles I	6
		Accounting Principles II	
		Accounting Math	
		Electronic Spreadsheets	
ACCT		Computerized Accounting	
¹BA	111	Communications (7 ¹ / ₂ weeks)	

	BA	113	Introduction to Business	3
	BA	121	Business Communications I	
	BA	133	Principles of Management	3
	BA	150	Principles of Management	3
		or	1	
	CSCI	101	Computer Literacy	
	MMS	151	DOS Fundamentals (5 weeks)	
	MMS	255	Desktop Publishing	3
	MMS	257	Microcomputer Graphics	3
	MMS	258	Local Area Network (LAN)	
			Systems Manager (10 weeks)	
	² CP	213	dBase III/Programming and Concepts.	
	MMS	134	WordPerfect for Windows	3
	MMS	150	Microsoft Windows (5 weeks)	
	MMS	200	Microcomputer Topics (10 weeks)	
	MMS	259	Macro Programming (5 weeks)	
			Total	55–56
			Additional Degree Requirements	
	COMM	221 or	130 or 232 or 240 Communications	3
	ENG	101	College Writing	3
	ENG	119	Technical Communications	3
	MATH	120	Intermediate Algebra Probability and Statistics	4
	MATH	145	Probability and Statistics	3
	PHIL	245B	Business Ethics	3
			Total	72–73
-	uired for c advisor re		te only. prerequisites.	
			Electives	
	BA	157	Computer Accounting for Small Busin	ss (5 weeks) 1
	MMS	135	Microsoft Word for Windows	3
	MMS	152	Microsoft Word for Windows LOTUS Fundamentals (5 weeks)	1
	MMS	153	dBase Fundamentals (5 weeks)	1
	MMS	156	WordPerfect Office Software (5 weeks	
	MMS	291	Internship	4
	MMS	293	Internship Cooperative Education	4

Course Descriptions

MMS 134 WordPerfect for Windows

3 credit hours

(Prerequisites: BA 150 or CSCI 101 and 25 net words per minute) Students receive instruction in the use of word processing software using Windows. There is a \$20 supply fee for printer supplies. (2 theory + 3 lab hours a week)

MMS 135 Microsoft Word for Windows

3 credit hours

(Prerequisites: BA 150 or CSCI 101 and 25 net words per minute) Students receive instruction in word processing using Microsoft Word for Windows. The emphasis is on learning the functions and practical office applications. There is a \$20 supply fee for printer supplies. (2 theory + 3 lab hours a week)

MMS 150 Microsoft Windows

1 credit hour

(Prerequisites: BA 150 or CSCI 101 and 25 net words per minute) This course is designed as an introduction to Windows. It includes instruction on the basic elements of Windows, as well as these applications: Program manager, file manager and desktop accessories. Emphasis is on software functions. There is a \$5 supply fee for printer supplies. (5 weeks; 2 theory + 3 lab hours a week)

MMS 151 DOS Fundamentals

1 credit hour

(Prerequisite: 25 words per minute typing skill) Instruction includes the most important DOS commands. Students learn internal and external commands, directories, file management and batch files. A \$5 supply fee is charged for printer supplies. (5 weeks; 2 theory + 3 lab hours a week)

MMS 152 Lotus Fundamentals

1 credit hour

(Prerequisite: 25 words per minute typing skill) Instruction is provided for non-accounting spreadsheet applications. Areas included are graphs, range names, strings and basic formulas. A \$5 supply fee is charged for printer supplies. (5 weeks; 2 theory + 3 lab hours a week)

MMS 153 dBase Fundamentals

1 credit hour

(Prerequisite: 25 words per minute typing skill) This course explores the function and purpose of database software; in particular, the hierarchy of data organization, structure and creation of databases and processing inquiries involving searches, screening and sequencing of records. A \$5 supply fee is charged for printer supplies. (5 weeks; 2 theory + 3 lab hours a week)

MMS 154 Desktop Publishing Using WordPerfect 1 credit hour

(Prerequisites: knowledge of WordPerfect, 25 words per minute typing skill and BA 150 or equivalent or permission of advisor) Students learn to incorporate WordPerfect graphics and text to produce newsletters, instructional materials and other documents where figures, diagrams, logos and pictures are needed. WordPerfect basic skills are highly desirable. A\$5 supply fee is charged for printer supplies. (5 weeks; 2 theory + 3 lab hours a week)

MMS 155 WordPerfect Presentations

1 credit hour

(Prerequisite: 25 words per minute typing skill) Students earn to create basic text charts and graph charts. Importing data to create these charts and exporting charts into documents are included. A \$5 supply fee is charged for printer supplies. (5 weeks; 2 theory + 3 lab hours a week)

MMS 156 WordPerfect Office Software

1 credit hour

(Prerequisites: 25 words per minute typing skill and BA 150 or permission of advisor) This course uses WordPerfect to aid in office automation. Software includes WordPerfect calculator, editor, file manager, notebook, mail and scheduler. A \$5 supply fee is charged for printer supplies. (5 weeks; 2 theory + 3 lab hours a week)

MMS 200 Microcomputer Topics

2 credit hours

(Prerequisites: BA 150 or CSCI 101, 25 net words per minute, MMS 134, ACCT 254) The topics to be covered include computer viruses, utilities software and installing boards. The course also includes software integration. There is a \$3 supply fee for printer supplies. (10 weeks; 3 theory + 2 lab hours a week)

MMS 255 Desktop Publishing

3 credit hours

(Prerequisite: BA 150 or CSCI 101 or CR 133 or permission of advisor) Students get hands-on experience in desktop publishing, using microcomputers to edit, typeset, design and do graphic production and page makeup. A \$15 supply fee is charged for printer supplies. (2 theory + 3 lab hours a week)

MMS 257 Microcomputer Graphics

3 credit hours

(Prerequisite: BA 150 or CSCI 101 or CR 133 or permission of advisor) This course provides hands-on experience in graphics presentation software which emphasizes charting, drawing, organizing and displaying images. A \$15 supply fee is charged for printer supplies. (2 theory + 3 lab hours a week)

MMS 258 Local Area Network (LAN) Systems Manager 2 credit hours (Prerequisites: BA 150, MMS 151 or permission of advisor, 25 words per minute typing skill) This course is designed as an introduction to network systems management. It includes a brief overview of network layouts and topology and provides instruction on creating workable directories, login scripts and user accounts and loading applications onto the network. A \$5 supply fee is charged for printer supplies. (10 weeks; 2 theory + 3 lab hours a week)

MMS 259 Macro Programming

1 credit hour

(Prerequisites: BA 150 or CSCI 101, 25 net words per minute, ACCT 254, MMS 134) The basic procedures for writing and running a macro are covered. The students examine the five command categories: data manipulation, file manipulation, flow-of-control, interactive and screen control. The students also examine the syntax or structure of advanced macro commands. There is a \$5 supply fee for printer supplies. (5 weeks; 2 theory + 3 lab hours a week)

MMS 291 Internship 4 credit hours

(Prerequisites: ACCT 254, ACCT 255, MMS 255 or MMS 257 and permission of advisor) Students work a minimum of 150 hours at business or training related supervised work stations. Students are not paid for their work but are supervised jointly by T-VI and the company. (1 theory + 9 lab hours a week)

MMS 293 Cooperative Education

4 credit hours

(Prerequisites: ACCT 254, ACCT 255, MMS 255 or MMS 257 and permission of advisor) Students work a minimum of 150 hours at business or training related supervised work stations. Student trainees are paid by the cooperating firm and supervised jointly by T-VI and the employer. (1 theory + 9 lab hours a week)

PRE-MANAGEMENT

Associate of Arts Degree
Requirements for Admission to Anderson Schools of Management,
University of New Mexico
Main and Montoya Campuses

This degree is designed to fulfill the freshman and sophomore course requirements for admission to the baccalaureate degree program at the Anderson Schools of Management, University of New Mexico.

The curriculum is based on an articulation agreement between T-VI and UNM which facilitates the transfer process. The agreement states that the student's cumulative grade point average (GPA) should be 2.0 and the GPA in the specific requirements should be 2.4. Specific requirements courses must be passed with a grade of C or better. The credit/ no credit option is not available for specific requirements courses; students may select the option only for general education requirements courses. Transfer and non-traditional credit accepted by T-VI toward the completion of this program may not be accepted by UNM. Students who apply transfer and non-traditional credit toward the Pre-Management program at T-VI and/or enroll in specific requirements courses on a credit/no credit basis are not covered by this agreement.

Students should request program advisor's approval before registering each term. Advisors are located in the Business Occupations Department at Main and Montoya campuses. Students should also communicate with the Bachelor of Business Administration program director at the Anderson Schools of Management.

A suggested schedule per term for the associate of arts degree in Pre-Management includes:

Term 1: ACCT 101, ACCT 111, BA 113, ENG 101, PSY 105

Term 2: ACCT 102, BA 150 or CSCI 101, ENG 102, ECON 200,

MATH 121, PSY 200

Term 3 and/or 4: Arts & Sciences requirements: 25 credit hours Term 4: MATH 162, ECON 201, MATH 245, MATH 245L

Associate of Arts in Pre-Management Program

General Education Requirements

	Goneral Education Requireme	1100
COMM	130; ART 101, 151, 201 or 260; MUS 139	Credit Hours
	rn languages, philosophy or humanities cou	
Anthrope	ology; History; Political Science	
Biology;	Chemistry; Physics (must have labs)	4
	Subtotal	25
	Specific Requirements	
These courses	are prerequisites. They must be passed with	a grade of C and cannot be
	it/no credit basis.	
ENG	101 and 102 or equivalent	l 6
MATH	121 or 150 and 162 or 180	
ECON	200 and 201	
PSY	105 and 200 or higher	1
	or	1
SOC	101 and 200 or higher	6
MATH	245 and MATH 245L	
BA	150 or CSCI 101	
ACCT	101 and 102	h h
ACCT	111	
BA	113	l .
	Subtotal	
		1

REAL ESTATE

Main and Montoya Campuses

The Real Estate courses are for persons seeking pre-licensing or continuing education credits in real estate and appraisal. All courses are approved by the New Mexico Real Estate Commission. Courses listed in this section may be used to meet requirements for the real estate concentration for the associate of applied science in Business Administration degree (see page 113). Course descriptions are on page 120–121.

Short-term core courses fo continuing education credit are offered through T-VI Continuing Education Studies, 224-5580.

Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits.

Credit courses which meet Real Estate Commission requirements are:

	T-VI Credit <u>Hours</u>	Cont Ed Contact <u>Hours</u>	Pre-Licensing Contact <u>Hours</u>
BA 270 Real Estate Law	3	20	30
BA 271 Real Estate Practice	3	20	30
BA 272 Real Estate Appraisal	3	20	30
			*37.5
BA 273 Real Estate Finance	3	20	30
BA 274 Real Estate Investment	3	20	30
BA 275 Property Management	3	. 20	30
BA 278 Real Estate and Taxes	3	20	30
BA 279 Uniform Standards of			
Professional Appraisal			
Practice	2	0	*15
BA 282 Appraising the			
Single Family Residence	3	20	30 *37.5

^{*}Pre-licensing for Appraisal Credit

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 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

			Credit Hours
SALE	101L	Sales-Cashier Lab	9
		Cooperative Education	
		Total	

SALE 101L Sales-Cashier Lab

9 credit hours

(Prerequisite: placement test) Students apply fundamentals of merchandising math and cashiering and demonstrate techniques of retail salesmanship Human and customer relations are covered extensively.

SALE 193 Cooperative Education

4 credit hours

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. (1 theory + 9 lab hours a week)



Health Occupations

Helping other people makes for a satisfying career, and the Health Occupations Department provides entry-level training and skill upgrading in a variety of medical fields as well as child development.

In 1994-95, associate degrees are offered in Child Development, Medical Laboratory Technology, Nursing and Respiratory Therapy. Certificates are offered in Health Unit Clerk, Nursing Assistant, Pharmacy Technician, Phlebotomy, Practical Nurse and Respiratory Therapy Technician.

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.

Textbooks: All Health Occupations programs require the student to purchase textbooks.

Enrollment: All Health Occupations programs except Nursing Assistant require a high school diploma or equivalent. Some programs have, as a prerequisite, a math and reading skill requirement while others require examinations designated by the Health Occupations Department. In addition, some programs require prerequisite courses. Most Health Occupations programs require that students be in good physical condition and be free of health conditions that could endanger themselves or others. Students 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.

Credit by examination (challenge) is available for selected courses. The Health Occupations counselor and program directors have detailed information.

Grading Policy: It is strongly recommended that all required courses be taken for a traditional letter grade. Most courses within Health Occupations must be taken for a traditional letter grade; the credit/no credit option may be used for selected courses.

Handbooks: For specific policies and procedures regarding classroom expectations, clinical experiences, learning laboratories, standards of practice and professional codes of ethics, students should consult their programs' student handbook.

SPECIAL COURSES

Special 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. These courses may not be offered every year. Special courses are:

Emergency Medical Technician Licensed Practical Nurse Refresher Nursing Home/Home Health Attendant Perioperative Registered Nurse Specialist Registered Nurse Refresher

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 120-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.

Each student must have current BLS provider CPR certification and must be a high school graduate or equivalent before being enrolled in EMS 160L.

The course is offered each term during evening hours. Participants pay the T-VI registration fee, a \$20 equipment fee and a \$15 supply fee, and purchase the required textbook. The equipment fee covers the cost of EMS certification, a pocket mask and gloves.

Students enrolled in this course may not be eligible to receive financial aid or Veterans Administration benefits.

#EMS

EMS 160L Basic Emergency Medical Technician Skills 6 credit hours (Prerequisite: high school diploma or equivalent) Emergency medical techniques currently used to provide emergency care with rescue squads or ambulances are covered in the class. Content includes use of airway adjuncts, oxygen therapy, splinting, patient assessment and treatment for shock. (4 theory + 4 lab hours a week)

LICENSED PRACTICAL NURSE REFRESHER

Special Course
71/2 Weeks, Main Campus
Winter Term

This 196-hour 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 is offered once a year in the winter term. Interested persons can contact the Health Occupations Department for more information. Enrollment is limited to 21 students on a first come, first served basis.

A physical examination and a current BLS CPR certificate are required before the first clinical day.

Participants pay the T-VI registration fee, a \$25 supply fee and a \$10 equipment fee to cover the cost of name tags, parking permits and preventive lab tests in case of needle stick exposure. Students purchase required textbooks; white uniform, shoes, a stethoscope and a 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.

			Credit Hours
LPNR 1	155L	Refresher Theory/Lab	6
LPNR 1	165C	Refresher Clinical Experience	2
		Total	

^{*}Course is offered in the evening.

LPNR 155L Refresher Theory/Lab

6 credit hours

(Prerequisite: a valid LPN license; corequisite: LPNR 165C) Medical-surgical and specialty nursing trends, procedures and pharmacology are covered in the theory portion of the program. (4 theory +5 lab hours a week)

LPNR 165C Refresher Clinical Experience

2 credit hours

(Corequisite: LPNR 155L) Medical and surgical clinical experiences include administration of medications.

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 either 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.

This course is offered every term. Interested persons should contact the Health Occupations Department for more information. Twenty-four persons are enrolled in 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 are required to purchase the textbook.

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

NAHA 102L Nursing Home/Home Health Attendant 5 credit hours Theory/Lab 5 credit hours

This course teaches basic nursing skills necessary to work in a nursing home, rehabilitation center or private home. Personal care and restorative care skills are taught in a lab setting. (4 theory + 3 lab hours a week)

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, including 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.

Written permission of the instructor is required for enrollment in the course. Applicants should call the Health Occupations Department to schedule an interview with the instructor. Applicants must be current registered nurses with six months' clinical nursing experience within the last two years. During the first week of the course, applicants must submit proof to the instructor of current immunizations, New Mexico RN license, CPR card and a physical exam.

There is a \$25 supply fee and a \$10 equipment fee. The equipment fee covers the cost of parking permits, name tags and preventive lab tests in case of needle stick exposure.

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.

				Credit Hours
PRNS	255L	Perioperative Registered Nurse Speci	alist	
		Theory/Lab		8
PRNS	265C	Perioperative Registered Nurse Specia		
		Clinical Experience] ,	6
		Total		14

PRNS 255L Perioperative Registered Nurse Specialist 8 credit hours Theory/Lab

(Prerequisite: written permission of the instructor; corequisite: PRNS 265C) This course 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. (6 theory + 6 lab hours a week)

(Corequisite: PRNS 255L) Students apply new and previously learned concepts to perioperative nursing in hospital operating rooms.

REGISTERED NURSE REFRESHER

Special Course
71/2 Weeks, Main Campus
Fall Term

This 196-hour 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, IV therapy and other current subjects. Students must receive a grade of C or better in both theory and clinical to complete the program.

The refresher course is offered once a year in the fall term. Students are enrolled on a first come, first served basis and enrollment is limited to 21 persons. Interested persons can contact the Health Occupations Department for more information.

A physical examination and a current BLS CPR certificate are required before the first clinical day.

Participants pay the T-VI registration fee, \$25 supply fee and \$10 equipment fee to cover the cost of name tags, parking permits and preventive lab tests in case of needle stick exposure. Students also purchase 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.

			Credit Hours
RNR	255L	Refresher Theory/Lab	6
RNR		Refresher Clinical Experience	
		Total	

RNR 255L Refresher Theory/Lab

6 credit hours

(Prerequisite: a valid RN license; corequisite: RNR 265C) Trends in medical-surgical and specialty nursing, pharmacology and procedures are covered in the course. (4 theory + 5 lab hours a week)

RNR 265C Refresher Clinical Experience

2 credit hours

(Corequisite: RNR 255L) Students have supervised medical-surgical clinical experiences including patient care.

CHILD DEVELOPMENT

Associate of Arts Degree Main Campus

The Child Development program facilitates the learning of theory and skills required for working with children from infancy through addlescence. The two-year program includes classroom instruction and practical experience. Students observe and interact with children in child care facilities, elementary and secondary classrooms and health care settings.

The curriculum provides beginning education courses as well as specialty courses in child development and course work that promotes reading, writing, speech, math, English and science.

Graduates of the program may find employment in the public school setting as educational assistants and Head Start teachers. They may also find jobs in child care centers or other child development programs. Note: Federal law requires a background check and a fingerprint check on all persons employed in child card centers.

Not all courses will be offered each term. Courses require a minimum enrollment of 12 students. Students are required to maintain a T-VI GPA of 2.0 and at least a C in all required courses.

Students are required to purchase textbooks.

Students interested in transferring to the University of New Mexico for a bachelor's degree in education or family studies must complete all UNM requirements and the College of Education application process. Advisement will be provided by the UNM College Advisement Center to clarify course selections and insure proper planning. Students should contact the center when they begin their studies at T-VI.

The enroll	ent requirement is a high school diploma or equivalent.
``~C	Botter in all Olasses
	Child Development Program
\sim $^{\prime}$	Credit Hours
\Rightarrow cdv	102 Infant Growth and Development3
CDV	102L Infant Growth and Development Lab
CDV	103L Pre-school Growth and Development
CDV	104 Theories of Child Development and Family Relations3
CDV	201 Middle Childhood Growth and Development 3
CDV	202 Adolescent Growth and Development
CDV	212 Special Issues In Childhood Development
CDV	214 Practicum in Childhood Development
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Required Arts & Sciences Courses

ART	101 o	т 151	3
COMM	130, 2	221, 270, 291 or 293	3
ENG	101	College Writing	
ENG	102	-	
HIST	101, 1	102, 161, 162 or 260	
MATH	120, 1	145 or 121	3
NUTR	125 o	г 120	3
PHIL	156 o	r 250	3
		or SOC 101	
Biologica	d and F	Physical Sciences	8
-		Total	
		TAPET ************************************	************
		Child Development Electives	
CDV	101	•	3
CDV CDV	101 204	Parents and Young Children	3 3
		Parents and Young Children Introduction to Classroom Learning	3
CDV	204	Parents and Young Children Introduction to Classroom Learning Education of the Exceptional Person	3 3
CDV	204 206	Parents and Young Children Introduction to Classroom Learning	3 3 3
CDV CDV	204 206 207	Parents and Young Children	3 3 3
CDV CDV CDV	204 206 207 208	Parents and Young Children Introduction to Classroom Learning Education of the Exceptional Person Management of Early Childhood Programs	3 3 3 1
CDV CDV CDV CDV	204 206 207 208 209	Parents and Young Children	3 3 1 3
CDV CDV CDV CDV CDV	204 206 207 208 209 210	Parents and Young Children	3 3 1 3 3

Course Descriptions

CDV 101 Parents and Young Children 3 credit hours

Students study the interactions of parents and children in diverse family configurations throughout the life cycle.

CDV 102 Infant Growth and Development 3 credit hours (*Pre- or corequisites: CDV 104 and ENG 101*) This course examines the basic needs and growth factors of children with an emphasis on the prenatal period through the second year.

CDV 102L Infant Growth and Development Lab 1 credit hour (Pre- or corequisite: CDV 102) This course requires students to observe infant behavior in a child care setting. The course may be taken concurrently with Infant Growth and Development.

CDV 103L Pre-school Growth and Development 3 credit hours (*Pre- or corequisites: CDV 104 and ENG 101*) Students examine the cognitive, physical and social-emotional development of the pre-school child. The course includes laboratory experience in a child care setting.

CDV 104 Theories of Child Development and Family Relations

3 credit hours

(Pre- or corequisite: ENG 101) This course presents an overview of significant theories and research of children's development and family interactions.

CDV 201 Middle Childhood Growth and Development 3 credit hours (*Pre- or corequisites: CDV 104 and ENG 101*) This course presents the principles of growth and development for 6- to 11-year-old children in cognitive, physical and social-emotional areas.

CDV 202 Adolescent Growth and Development 3 credit hours (Pre- or corequisites: CDV 104 and ENG 101) Students examine the development and communication patterns of adolescents within the family setting.

CDV 204 Introduction to Classroom Learning 3 credit hours (*Pre-or corequisites: CDV 104 and ENG 101*) An introduction to educational psychology and learning with an emphasis on practical application is presented.

CDV 206 Education of the Exceptional Person 3 credit hours (*Pre- or corequisites: CDV 104 and ENG 101*) The course examines the characteristics and educational needs of exceptional children. Definition, e iology, characteristics and various educational alternatives for each of the exceptionalities are surveyed.

CDV 207 Management of Early Childhood Programs 3 credit hours (Pre- or corequisites: CDV 104 and ENG 101) The course provides students with knowledge and skills to develop an effective early childhood program. Students examine staff responsibilities, program development, scheduling, behavioral observation and evaluation techniques.

CDV 208 Child Abuse and Neglect 1 credit hour (Pre- or corequisites: CDV 104 and ENG 101) A survey of research about the dysfunctional family is presented with an emphasis on identifying the potential victim of child abuse. Preventive methods are explored.

CDV 209 Early Childhood Learning Environments 3 credit hours (*Pre- or corequisites: CDV 104 and ENG 101*) The course demonstrates how to set up and maintain healthy learning environments. Students learn to use space, relationships, materials and routines as resources for developing environments that encourage play and learning for children.

CDV 210 Guidance and Early Childhood Development 3 credit hours (Pre- or corequisites: CDV 104 and ENG 101) This course covers positive guidance and discipline techniques. Emphasis is on providing appropriate experiences for the development of autonomy, self-esteem and social competency in children.

CDV 211 Microcomputer Awareness for Educators 1 credit hour This course provides an introduction to microcomputers, software and several programming languages useful for educational applications.

CDV 212 Special Issues in Childhood Development 3 credit hours (Prerequisite: must be in final term of courses for graduation or have permission of the program director) This special exit course is designed to present a balance of research findings, theory and application and to integrate these aspects of the study of child development for the graduating student. The seminar-style course focuses on critical contemporary issues in the field with an emphasis on the working applications of expert knowledge.

CDV 214C Practicum in Childhood Development 3 credit hours (Prerequisite: must be in final term of courses for graduation or have permission of the program director) The course provides students with a supervised field experience in a childhood setting. Students work in such settings as head start, child care centers and public school classrooms.

CDV 296 Topics 1-3 credit hours
Various topics are offered.

HEALTH UNIT CLERK

Certificate Program Main Campus Winter, Summer Terms

The Health Unit Clerk program prepares persons to work in hospitals, elder care centers, out-patient 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.

Enrollment in the Health Unit Clerk program requires a high school diploma or equivalent, the ability to read at the seventh-grade level and a passing score on the admissions math test. Prior to starting clinical in HUC 121C, students must have demonstrated keyboarding skills. Students 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 out-patient 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

			Creat Hours
HUC	101L	Health Unit Clerk Theory and La	b8
HUC	131C	Health Unit Clerk Clinical Practic	e7
		Total	•
			Y

Course Descriptions

HUC 101L Health Unit Clerk Theory and Lab 8 credit hours

(Prerequisite: enrollment in the program; corequisite: HUC 131C) 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. (5 theory + 20 lab hours a week)

HUC 131C Health Unit Clerk Clinical Practice 4 credit hours

(Prerequisites: HUC 101L and keyboarding skills as shown by successful completion of a course or the 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.

MEDICAL LABORATORY TECHNICIAN

Associate of Science Degree Main Campus 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 under the supervision of a pathologist and medical technologist 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.

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 exams to obtain Certified Medical Laboratory Technician credentials.

The clinical practicum experience at affiliated hospitals and laboratories provides experience in performing laboratory tests under the direction of a clinical instructor. Students must arrange for their own transportation to the hospitals or labs.

A grade of C or better must be earned in all courses to advance to the next term and graduate with an associate of science degree.

There is an equipment charge of \$55 for a lab coat, parking fees, name tag and preventive lab tests in case of needle stick exposure. Each MLT laboratory course also has a \$20 lab fee.

Orientation sessions for the Medical Laboratory Technician Program will be scheduled regularly; students should contact the Health Occupations Department for dates and times. Orientation sessions will include detailed information about the petitioning and selection process, program requirements and general information about laboratory medicine as a career including the physical demands of the job. Anyone interested in the Medical Laboratory Technician program is strongly encouraged to attend one of these orientation sessions. In addition, it is strongly recommended that applicants review prerequisites and program requirements with the Health Occupations counselor.

Prospective MLT students should declare MLT as their major and submit a petition packet to the Health Occupations counselor between July 18 and August 26 to be considered for the MLT class beginning in January.

To be considered for enrollment into the MLT courses a student must:
☐ Be a high school graduate or equivalent as stated on the T-VI application.
☐ Submit official transcripts of previous education including vocational school
or college.
☐ Fulfill requirements in English, math, reading and science by qualifying score
on the ACT or SAT, or placement exams, or successful completion of 100
level courses or college course work.

☐ Provide proof of successful completion of MATH 121 or a higher level math
course (completed with a C or better); MATH 121 may be waived with suc-
cessful completion of CHEM 121L or math placement test indicating math
proficiency.
☐ Provide proof of successful completion of CHEM 11/112L or a higher level
college chemistry course with a lab (completed with a C or better).
☐ Score at least 85 percent on the Health Occupations Nursing/MLT Basic
Math Test within the 12 months prior to the petition date. Students failing to
score 85 percent may retake this exam once. Students with two failed at-
tempts must successfully complete MATH 099H and then pass the Nursing/
MLT Basic Math Test. Information is available from the Health Occupations
counselor.
☐ Have a cumulative T-VI GPA of 2.0 or higher.

Students are responsible for meeting the prerequisite criteria. Once all criteria are fulfilled, students may petition for enrollment in the core MLT curriculum. Required Arts & Science courses may be taken prior to enrollment in MLT courses. Should the number of students eligible to enroll exceed the class size, phority will be given to those who have completed all required Arts & Sciences courses. The program begins in the winter term of each year,

Physical exam forms will be given to students for completion after selection for the MLT core courses. Students must submit completed health forms providing evidence of current immunizations and physical exam before enrolling in MLT 151C. This physical exam may be done at the T-VI Health Center for a fee or it may be completed by a private physician.

Students must submit evidence of current cardiopulmonary resuscitation (CPR) certification prior to enrolling into MLT 151C and MLT 205C.

Medical Laboratory Technician Program

			Credit Hours
MLT	110L	Introduction to Medical Technology	4
MLT	114	Immunology	1
MLT	114C	Clinical Immunology	1
MLT	151C	Clinical ImmunologyClinical Experience Urinalysis/Phlebo	omyCR/DC.4
¹ MLT		Clinical Chemistry	
¹ MLT	203L	Clinical Hematology/Coagulation	. 6
¹ MLT	204L	Clinical Immunohematology	3
MLT	205C	Clinical Immunohematology	12
[!] MLT		MLT Microbiology	
MLT		Clinical MLT Microbiology	
		Required Arts & Sciences Courses ¹	
² BIO	123	Biology for Health Sciences	
^{2}BIO	124L	Biology for Health Sciences Lab	
100 00	_		1

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ENG	101	College Writing	3
CHEM	121L	General Chemistry I	
3BIO	136	Human Anatomy and Physiology for Non-Majors	3
3BIO	139L	Human Anatomy and Physiology Lab for Non-Majors	. 1
CHEM	122L	General Chemistry II	4
BIO	239	Microbiology	3
BIO	239L	Microbiology Lab	1
⁴ Humani	ties/Soc	ial Science Elective	3
		Total	69

¹Courses taught by 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.

An agreement with the UNM Medical Laboratory Science (MLS) Department allows for the transfer of some or all credits earned at T-VI toward the UNM MLS bachelor's degree. Students should contact the program director for specifics.

In order to satisfy prerequisite and corequisite requirements, the following order of courses is recommended:

Winter Term: MLT 110L, BIO 123/124L, ENG 101, CHEM 121L

Summer Term: MLT 151C, BIO 136/139L, CHEM 122L, HUM/SOC elective

Fall Term: MLT 114L, MLT 114C, MLT 201L, BIO 239/239L Winter Term: MLT 203L, MLT 204L. MLT 206, MLT 206C

Summer Term: MLT 205C

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. Advanced placement applicants will be allowed to enroll in MLT courses on a space-available basis.

Route One: transfer of credit for equivalent coursework 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

²BIO 121L may be substituted for BIO 123/124L.

³BIO 237/247L and BIO 238/248L may be substituted for BIO 136/139L.

⁴PHIL 245M, Biomedical Ethics, strongly recommended.

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 Office 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 at T-VI in order to be awarded the associate of science degree.

Route Two: documented work experience in laboratory medicine on specimens from humans. MLT 110L and each subject area of the clinical experiences may be challenged through a skills competency test taken before the beginning of the anticipated clinical rotation. There is a \$15 fee for each exam. 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, with the exception of MLT 110L, at T-VI in order to be awarded the associate degree.

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

Course Descriptions

MLT 110L Introduction to Medical Technology

4 credit hours

(Prerequisite: permission of the program director; corequisites: ENG 101, BIO 123/124L, CHEM 121L) 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 and safety procedures. (3 theory + 3 lab hours a week)

MLT 114 Immunology

1 credit hour

(Prerequisite: MLT 151C; pre- or corequisites: BIO 239/2391, MLT 201L; corequisite: MLT 114C) This course offers a basic study of the body's immune response and an introduction to diseases involving deficiencies in the immune system.

MLT 114C Clinical Immunology

1 credit hour

(Prerequisite: MLT 151C; pre- or corequisites: BIO 239/239L MLT 201L; corequsite: MLT 114) This course offers the students an opportunity to perform serological testing on specimens from hospital patients using current methodologies.

MLT 151C Clinical Experience Urinalysis/Phlebotomy 4 credit hours (Prerequisite: MLT 110L; pre- or corequisites: BIO 136/139L, CHEM 122L, humanities/social science) This course is designed for students to practice procedures learned in

urinalysis and phlebotomy by giving them practical experience at affiliated hospitals. This is a credit/no credit course.

MLT 112C Clinical Immunology

2 credit hours

(Prerequisite: MLT 151C; pre- or corequisites: BIO 239/239L, MLT 201L) This course offers a basic study of the body's immune response and serological methods used in testing for immunological reactions. (1 theory + 3 clinical hours a week)

MLT 201L Clinical Chemistry

7 credit hours

(Pre- or corequisites: MLT 112L, BIO 239/239L) 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. (5 theory + 6 lab hours a week)

MLT 203L Clinical Hematology/Coagulation 6 credit hours

(*Pre- or corequisites: MLT 202L, MLT 204L*) A basic study is presented of normal and abnormal blood cell enumeration and morphology and the coagulation mechanisms. Included are the principles of routine procedures performed in the hematology laboratory. (4 theory + 6 lab hours a week)

MLT 204L Clinical Immunohematology

3 credit hours

(Pre- or corequisites: MLT 202L, MLT 203L) This course is a basic study of theory, principles and test methods for determining blood group typing, antibody detection and identification, cross matching and component therapy. (2 theory + 3 lab hours a week)

MLT 205C Clinical Experience

12 credit hours

(Prerequisites: 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 previous MLT courses. This course is offered for credit/no credit.

MLT 206 MLT Microbiology

3 credit hours

(Prerequisite: MLT 201L; corequisites: MLT 203L, MLT 204L, MLT 206C) 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.

MLT 206C Clinical Microbiology

2 credit hours

1

(Prerequisite: MLT 201L; corequisites: MLT 203L, MLT 204L, MLT 206) This course offers the students an opportunity to identify microorganisms of clinical significance from specimens obtained from hospital patients. Students utilize current methodologies and identification techniques.

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, out-patient 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 coursework receive certificates.

Enrollment in the Nursing Assistant program requires the abilities to read at the seventh-grade level and receive a passing score on the admissions math test. Good communication skills and the ability to care for others are necessary for this program. Students must have a New Mexico driver's license and a car because students will visit patients' homes (city buses are not adequate).

The 15-week program includes 330 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, out-patient clinics and home health care agencies. A student attends class an average of 22 hours per week throughout the program.

The student will be required to have a physical exam, PPD and current immunizations (including tetanus, Rubella and Rubeola) 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 \$35 equipment fee covers the cost of the required uniform top, name tag, stethoscope, health test, CNA pin, parking fees, CPR and first aid certification, a transfer belt and preventive lab tests in case of needle stick exposure. A watch with a second hand, uniform slacks, shirt and shoes are required but not covered by the fee.

Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits.

Nursing Assistant Program

			Credit Hours
NA	101	Nursing Assistant Theory	4
NA	110L	Nursing Assistant Lab	
NA	121	Nursing Assistant Clinical Experience	
NA	131	Health Communications	
NA	141	Mathematics	•
NA	161	Nursing Assistant Issues	L
		Total	15

Course Descriptions

NA 101 Nursing Assistant Theory 4 credit hours (Prerequisite: enrollment in the program; corequisites: NA 110L, NA 120C, NA 131, NA 141, NA 161) During the first nine weeks students attend classes covering basic nursing skills used in health care agencies and homes. Other topics covered are geriatrics, home management, community resources and purchase and preparation of foods.

NA 110L Nursing Assistant Lab 1 credit hour (Corequisite: NA 101) Students practice basic nursing skills in the laboratory. (5 lab hours a week for five weeks)

NA 121C Nursing Assistant Clinical Experiences 3 credit hours (*Prerequisites: NA 101, NA 110L, NA 131, NA 141, NA 161*) The last six weeks of the program include supervised practice of nursing skills in hospitals, long-term care centers and patient homes throughout the city.

NA 131 Health Communications 3 credit hours (Corequisite: NA 101) This course includes introductions to medical terminology, anatomy and physiology and nutrition. The basic structure and normal functions of the body systems and some of the health problems which can occur in those systems are covered.

NA 141 Mathematics 2 credit hours (Corequisite: NA 101) Basic math is reviewed with practice working selected problems.

NA 161 Nursing Assistant Issues 2 credit hours (Corequisite: NA 101) Special topics are covered such as nutrition labs, blood pressure practice, home health care post-conferences and clinical seminars.

PRACTICAL NUR\$ING

Certificate Program Main Campus 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).

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 the nursing programs are scheduled regularly. These sessions review levels of nursing, the petition process and program requirements. Individuals interested in nursing are strongly encouraged to attend one of these sessions. When ready to enter clinical courses, students must petition for selection. Petitions for selection to the clinical courses are accepted early in the term prior to the term of enrollment. Students should contact the Health Occupations Department for the dates and times of the orientation sessions and when petitions for selection will be accepted. In addition, it is strongly recommended that applicants review prerequisites and program requirements with the Health Occupations counselor.

To be eligible to enroll in Practical Nursing courses a student must: ☐ Be a high school graduate or equivalent as stated on the T-VI admissions application. ☐ Fulfill requirements in English, math, reading and science by qualifying scores on the ACT or SAT, or placement exams, or successful completion of 100-level courses or college course work. ☐ Score at least 85 percent on the Health Occupations Nursing/MLT Basic Math Test within the 12 months prior to the petition date. Students failing to score 85 percent may retake this exam once. Students with two failed attempts must successfully complete MATH 099H and then pass the Nursing/ MLT Basic Math Test. Information is available from the Health Occupations counselor. ☐ Have a cumulative T-VI GPA of 2.0 or higher. ☐ Provide proof of completing the following courses with a C or better: BIO 136/139L, Human Anatomy and Physiology/Lab for non-majors, and ENG 101, College Writing. Anatomy and physiology courses must be taken within five years from the date of application to the nursing program.

Students are responsible for meeting the prerequisite criteria and petitioning for selection into the clinical courses. 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. If there are more people

who have completed all the required Arts & Science courses than there is space, the selection will be based upon the date of application to T-VI.

After selection into the first clinical course, students must submit:

- Completed physical examination and health forms with evidence of current immunizations before beginning clinical courses. It is advisable that the student be able to lift 50 pounds or more.
- ☐ 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. The anatomy and physiology course must be completed within five years from the date of application to the nursing program. A minimum grade of C must be earned in all courses (Nursing and Arts & Sciences) to continue in the program and graduate. In addition, competency in dosage calculations, as tested by the PN calculation exam, must be maintained for progress in the program.

Students must arrange for their own transportation to attend all classes, observations and clinical experiences as scheduled. There may be some required evening clinical hours as well as daytime hours.

There is a \$90 equipment fee for required uniforms, stethoscope, scissors, parking fee, transfer belts, identification tags and preventive lab tests in case of needle stick exposure. 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; or
- 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.

Practical Nurse Program

Credit Hours

Required Arts & Sciences Courses

		-	
¹ BIO	136	Human Anatomy and Physiology .	3
¹ BIO	139L	Human Anatomy and Physiology L	ab1
ENG	101	College Writing	3
NUTR	125	Nutrition	3
² PSY	105	General Psychology	3
COMM	221	Interpersonal Communication	3
		Practical Nurse Courses	
NURS	115	Dosage Calculations	1
NURS	124C	Fundamentals of Nursing	7
NURS	125C	Medical-Surgical Nursing	8
^{3}PN	131	Pharmacology	3
PN	146C	Maternal-Child/Medical-Surgical N	ursing16
	Total		51

¹BIO 237/247L and BIO 238/248L may be substituted.

In order to satisfy prerequisite and corequisite requirements, the following order of courses is recommended:

Term I: BIO 136/139L; ENG 101

Term II: NURS 115, NURS 124C, NUTRITION 125, PSY 105

Term III: NURS 125C, PN 131, COMM 221

Term IV: PN 146C



PRESENTERIAN HOSPITAL SCHOOL OF PRACTICAL NURSING

The Presbyterian Healthcare Services (PHS) School of Practical Nursing was started in 1956 at Presbyterian Hospital. In 1965 T-VI assumed administrative responsibility for the school. Presbyterian continues to support the school by providing clinical facilities for patient care experiences. The T-VI/PHS 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 the North Central Association of Colleges and Schools.

²PSY 220 may be substituted.

³NURS 231 may be substituted.

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. The nursing courses must be transferred, taken or challenged through the Health Occupations Department. All advanced placement students must complete NURS 201 prior to entry into the program.

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 nursing courses 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 to T-VI. 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 post-secondary educational institution (e.g. military corps member) or performance of basic nursing skills during employment in an in-patient setting within the last three years.

Individuals interested in challenging nursing coursework must make an appointment with the director of the nursing programs to determine eligibility and to discuss the procedure. The challenge procedure includes theory and practical exams. Challenge exams are available for NURS 115, NURS 124C and NURS 125C. The cost ranges from \$15 to \$40 per course.

NURSING

Associate of Science Degree Main Campus Winter and Summer Terms

The associate degree in nursing (ADN) program prepares technical nurses to 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 ADN 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.

Orientation sessions for the nursing programs are scheduled regularly. These sessions review levels of nursing, the petition process and program requirements. Individuals interested in nursing are strongly encouraged to attend one of these sessions. Students may declare the associate degree in nursing as their major a any time but must petition for selection into the clinical courses. Petitions for selection to the clinical courses are being accepted early in the term prior to the desired term of enrollment. Students should contact the Health Occupations Department for the dates and times of the orientation sessions and to find out the dates petitions for selection will be accepted.

To be considered for enrollment in Nursing courses a student must: ☐ Be a high school graduate or equivalent as stated on the T-VI admissions application. ☐ Submit official transcripts of previous education including vocational school or college. ☐ Fulfill requirements in English, math, reading and science by qualifying scores on the ACT or SAT, or placement exams, or successful completion of 100-level courses or college course work. ☐ 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, or -A year of high school chemistry and a year of advanced high school biology within the past five years. Written approval from the Arts & Sciences Department is required. ☐ Score at least 85 percent on the Health Occupations Nursing/MLT Basic Math Test within the 12 months prior to the petition date. Students failing to score 85 percent may retake this exam once. Students with two failed attempts must successfully complete MATH 099H and then pass the Nursing/ MLT Basic Math Test. Information is available from the Health Occupations counselor.

\Box H	ave a cumulative T-VI GPA of 2.0 or higher.
$\square P$	rovide proof of completion of the following courses with a C or better:
Bl	IO 237/247L, Anatomy and Physiology I; PSY 105, General Psychology;
El	NG 101, College Writing; and NUTR 125, Nutrition. Anatomy and physi-
ol	ogy courses must be taken within five years from the date of application to
the	e nursing program.

Students are responsible for meeting the prerequisite criteria. Once all criteria are fulfilled students must petition for enrollment in the first clinical course in nursing. Should the number of students eligible to enroll in the first clinical course exceed the class size, priority will be given to those who have completed the highest number of required Arts & Sciences courses. Priority will be given to those who have completed BIO 238/248L, Anatomy and Physiology. If there are more people who have completed all the required Arts & Science courses than there is space, the selection will be based upon the date of application to T-VI.

After selection to the nursing courses students must submit to the nursing programs office:

- ☐ Completed physical examination and health forms with evidence of current immunizations before beginning clinical courses. It is advisable that the student be able to lift 50 pounds or more.
- ☐ Evidence of current certification in cardiopulmonary resuscitation (CPR) before beginning clinical courses (CPR certification must be kept current throughout the program)

Required anatomy and physiology and microbiology courses must have been taken within five years of the date of application to the nursing programs. Students must earn a minimum grade of C in all courses to advance to the next term and graduate. In addition, competency in dosage calculations, as tested by calculation exams, must be maintained for progress in the program.

Students must attend classes, observation and clinical experiences as scheduled and must arrange for their own transportation to the agencies and hospitals. There may be some required evening clinical hours as well as daytime hours.

Equipment fee for the first term is \$90 for required uniforms, stethoscope, scissors, transfer belts, parking fees, identification tags, achievement tests and preventive lab test in case of needle stick exposure. There is a \$10 fee the third term for 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;
- 5. is mentally incompetent;
- 6. is guilty of unprofessional conduct; or
- 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

			Credit Hours
		Required Arts & Sciences Courses	
BIO	237	Anatomy and Physiology I	3
BIO	247L	Anatomy and Physiology I Lab	
ENG	101	College Writing	
PSY	105	General Psychology	3
BIO	238	Anatomy and Physiology II	3
BIO	248L	Anatomy and Physiology II Lab	1
NUTR	125	Nutrition	
PSY	220	Developmental Psychology	3
BIO	239	Microbiology for Health Sciences	33
BIO	239L	Microbiology for Health Sciences Lab	1
PHIL	245M		3
Elective ¹			.]3
		Required Nursing Courses	
NURS	115	Dosage Calculations	
NURS	124C		
NURS	125C	Medical-Surgical Nursing	8
NURS	224C	Maternity Nursing	
NURS	225C	Maternity Nursing	
NURS	231	Pharmacology in Nursing	

NURS	242	Nursing Trends and Issues1
NURS	246C	Pediatric/Advanced Medical-Surgical Nursing10
		Total70

¹May be outside of Arts & Sciences with departmental approval; may not be a lab/science course

In order to satisfy prerequisite and co-requisite requirements, the following order of courses is recommended:

Term I: BIO 237/247L, PSY 105, ENG 101, NUTR 125 Term II: NURS 115, NURS 124C, BIO 238/248L, PSY 220

Term III: NURS 125C, BIO 239/239L, PHIL 245M Term IV: NURS 224C, NURS 225C, NURS 231

Term V: NURS 246C, NURS 242, Elective

Associate Degree in Nursing: Advanced Placement

To apply for advanced standing in the Associate Degree Nursing program, individuals must meet the enrollment requirements for the program.

All advanced placement students must take NURS 201 prior to enrollment in the Nursing courses.

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 member), or performance of basic nursing skills during employment in an in-patient setting within the last three years. Individuals interested in challenging nursing coursework must make an appointment with the director of the nursing program to determine eligibility and to discuss the procedure. The challenge process includes theory and practical exams. Challenge exams are available for NURS 115, NURS 124C and NURS 125C. There is a \$15-\$40 fee for each challenge exam.

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. Transfer students are required to enroll a minimum of one term and complete 15 credit hours at T-VI. For specific information, students should contact the director of the nursing programs.

LPN Mobility: The associate degree program is designed to enroll qualified licensed practical nurses into the third term who meet the following requirements:

☐ Meet all enrollment criteria for the ADN program including official tran-
scripts of previous education in a vocational school or college (for credit
waiver for NURS 124C and NURS 125C students must provide proof of
current LPN licensure)

☐ Pass the Nursing Mobility Profile I examination if an approved postsecondary practical nurse program has not been completed

- ☐ Provide proof of completion or challenge of the following courses with a minimum grade of C (anatomy and physiology and microbiology courses must be taken within five years from the date of application to the nursing program): —BIO 237/247L, Anatomy and Physiology I -BIO 238/248L, Anatomy and Physiology II -BIO 239/239L, Microbiology for Health Sciences -ENG 101, College Writing

 - -PSY 105, General Psychology
 - -PSY 220, Developmental Psychology
 - -NUTR 125, Nutrition
 - -NURS 115, Dosage Calculations (CR/NC)
 - -NURS 201, Nursing Concepts

Students are responsible for meeting the prerequisites and notifying the departmental counselor. Students will be notified by mail when they are selected to enter the clinical courses. Should the number of advanced placement students eligible to enroll exceed the class size, priority will be given to those students who have completed all of the required Arts & Sciences courses. After selection for enrollment in the clinical courses, students must submit:

- ☐ Completed physical examination and health forms with evidence of current immunizations before beginning clinical courses. It is advisable that the student be able to lift 50 pounds or more.
- ☐ Evidence of current certification in cardiopulmonary resuscitation (CPR) before beginning clinical courses. CPR certification must be kept current throughout the program.

Students pay a total of \$25 in fees for parking, name tags, achievement tests and preventive lab tests in case of needle stick exposure upon enrollment into nursing courses (fees are attached to specific courses). 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.

Course Descriptions

NURS 115 Dosage Calculations

1 credit hour

(Prerequisites: Nursing Basic Math Test and nursing director approval) Methods of dosage calculations for oral and parenteral medications, including intravenous therapy and pediatric dosages, are presented. The course is offered for CR/NC.

NURS 124C Fundamentals of Nursing

7 credit hours

(ADN Students-prerequisite: nursing director approval; corequisites: NURS 115, BIO 238/248L, PSY 220. PN Students—prerequisites: nursing director approval, BIO 136/ 139L, ENG 101; corequisites: NURS 115, PSY 105, NUTR 125) The conceptual framework of the curriculum and nursing process are introduced. Key concepts are developed using a self-care model. Nursing skills are developed to meet the universal and developmental needs of adults across cultures. (4 theory + 9 clinical hours a week)

NURS 125C Medical-Surgical Nursing

8 credit hours

(ADN Students—prerequisites: BIO 238/248L, Calculation Exam I*, NURS 115, NURS 124C, PSY 220; pre-or corequisites: BIO 239/239L, PHIL 245M. PN Students—prerequisites: Calculation Exam I*, NURS 115, NURS 124C; NUTR 125, PSY 105; pre-or corequisites: COMM 221, PN 131) Nursing process is used to identify ways to meet self-care deficits due to common illnesses or injuries of adult clients. The role of the nurse in promoting health deviation self-care in adult clients is presented. (4 theory + 12 clinical hours a week)

NURS 201 Nursing Concepts for LPN/Transfer Students 2 credit hours (ADN Students—prerequisites: ENG 101, PSY 105, BIO 237/247L. PN Students—pre-or corequisites: ENG 101, NUTR 125, BIO 136/139L) An introduction to the conceptual framework of the nursing program and an in-depth study of the nursing process. This course is required for LPNs and all applicants who seek advanced placement in the practical nurse or associate degree program. Course is only offered two times per year.

NURS 224C Maternity Nursing

5 credit hours

(Prerequisites: Calculation Exam II*, BIO 239/239L, BIO 238/248L, NURS 125C, ENG 101, NUTR 125, PSY 220; pre- or corequisites: NURS 225C, NURS 231) This 7½-week course presents a study of the child-bearing family with universal, developmental and health deviations self-care requisites. Content integrates the nursing process, client education, nursing care systems and assessment skills. (6 theory + 12 clinical hours a week)

NURS 225C Psychiatric Nursing

5 credit hours

(Prerequisites: Calculation Exam II*, BIO 239/239L, BIO 238/248L, NURS 125C, ENG 101, NUTR 125, PSY 220; pre- or corequisites: NURS 224C, NURS 231) This is a 7½-week course in which 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 these clients. (6 theory + 12 clinical hours a week)

NURS 231 Pharmacology in Nursing

3 credit hours

(Prerequisites: BIO 238/248L, NURS 124C; pre- or corequisite: BIO 239/239L) A study utilizing nursing process concepts necessary for nursing judgment in the use of chemical agents and the theoretical base required to administer medications. Information covers drugs in current use, including pharmacokinetics, pharmacodynamics, therapeutic uses, adverse reactions, precautions and contraindications.

NURS 242 Nursing Trends and Issues

1 credit hour

(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 application of principles of client-care management.

NURS 246C Pediatric Advanced Medical-Surgical Nursing

10 credit hours

(Prerequisites: Calculation Exam III*, NURS 224C, NURS 225C, BIO 239/239L, NURS 231; corequisites: NURS 242, Arts & Sciences elective) A study, utilizing nursing process, of ways to meet the self-care needs of children as well as adults with complex health problems, including modifications to meet universal, developmental and health deviation needs of children and their families. (5 theory + 15 clinical hours a week)

NURS 296 Topics in Nursing

1-3 credit hours

(Prerequisites: may vary) Various topics in nursing are presented.

PN 131 Pharmacology

3 credit hours

(Prerequisites: BIO 136/139L, NURS 124C; corequisite: NURS 125C) Focus is on 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 credit hours (Prerequisites: PN Calculation Exam*, NURS 125C, PN 131) A study, using nursing process, of ways to meet self-care needs due to developmental factors or more complex health conditions of maternal-child clients and adults. The legal/ethical role of the practical nurse is presented. (9 theory + 21 clinical hours a week)

*Calculation exams must be passed with a score of 90% or better.



PHARMACY TECHNICIAN

Certificate Program Main Campus Winter Term

The Pharmacy Technician Program is a two-term certificate program that prepares persons to assist pharmacists in the community or hospital. Students learn to prepare, mix, assemble and label medications. They also learn to prepare sterile products including irrigations and intravenous admixtures. Instruction is provided in the classroom, in laboratories on campus and in local health care facilities.

Enrollment in the Pharmacy Technician program requires a high school diploma or equivalent, the ability to read at the eighth-grade level and a passing score on the admissions math test.

Arts & Sciences courses listed in the curriculum may be taken prior to entering the program. These courses must be completed with a grade of C or better.

There is a \$35 lab fee for one lab coat, name tags and parking fees. Students are also required to purchase their own textbooks.

Pharmacy Technician Program

Pharmacy Technician Courses

		Credit Hours
PT	110	Introduction to Pharmacy Technology3
PT	111L	Pharmacy Technician Lab I4
PT	115	Pharmacy Technician Anatomy and Physiology3
PT	120	Advanced Pharmacy Technology3
PT	121L	Pharmacy Technician Lab II2
PT	122C	Pharmacy Technician Practicum5
PT	125	Pharmacology for Pharmacy Technicians3
		Arts & Sciences Courses
*CHEM111/112		Introduction to Chemistry4
CSCI	101	Computer Literacy4
COMM	221	Interpersonal Communication Studies3
		Total
*Check prerequ	isite.	

Course Descriptions

PT 110 Introduction to Pharmacy Technology 3 credit hours (Prerequisite: enrollment in the program; corequisites: PT 111L, PT 115; pre-or corequisites: CHEM 111/112L, CSCI 101) This beginning course provides a discussion of the pharmacy technician's role, the Pharmacy Practice Ac, ethics, prescription preparation and institutional drug distribution systems.

PT 111L Pharmacy Technician Lab I 4 credit hours (Corequisite: PT 110) This campus lab provides opportunities for skill development in

prescription preparation and pharmaceutical calculations. Infection control and universal precautions are emphasized. The student also learns medical terminology, pharmaceutical calculations for oral, parenteral and IV preparations

PT 115 Pharmacy Technician Anatomy 3 credit hours and Physiology

(Corequisite: PT 110) An integrated study of the structures and function of the human body. Common disease entities related to body systems are presented.

PT 120 Advanced Pharmacy Technology 3 credit hours (Prerequisites: PT 110, PT 111L, PT 115, CHEM 111/112L, C. Cl 101; corequisites: PT 121L, PT 122C, PT 125; pre- or corequisite: COMM 221) This course covers compounding and packaging of drugs, preparation of intravenous admixtures, inventory maintenance, clerical skills and institutional drug distribution processes.

PT 121L Pharmacy Technician Lab II 2 credit hours (Corequisite: PT 120) This campus lab provides opportunities for skill development in

(Corequisite: PT 120) This campus lab provides opportunities for skill development in compounding/reconstitution, labeling, aseptic technique, use of laminar flow hoods and use of the computer.

PT 122C Pharmacy Technician Practicum 5 credit hours (Corequisite: PT 120) Students are assigned to institutional and community pharmacies for practical experience in applying what they have learned in classrooms and labs.

PT 125 Pharmacology for Pharmacy Technicians 3 credit hours (Corequisite: PT 120) This is a study of therapeutic drug categories.

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 works full or part time 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 blood collection 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 related to laboratory test record keeping. The job also requires a lot of walking, bending and standing.

Enrollment in the Phlebotomy program requires a high school diploma or equivalent, the ability to read at the seventh-grade level and a passing score on the admissions math test. Applicants must present evidence of current certification in cardiopulmonary resuscitation (CPR) before beginning the clinical part of the course. Students should possess the ability to communicate verbally with clients, basic math skills for timing tests and manual dexterity required to handle laboratory equipment. Students must be able to read orders and labels associated with medical procedures.

To receive a certificate, a student must complete the 15-week, 375-hour program, which includes six weeks of classroom instruction in theory and lab and nine weeks of experience in local hospital and/or clinics, with a grade of C or better in all courses.

A \$50 equipment fee covers the cost of a lab coat, health tests, name tags, parking fees and preventive lab tests in case of needle stick exposure. Students are also required to purchase textbooks.

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

Phlebotomist Program

			Credit Hours
PHLB	101L	Phlebotomist Theory and Lab	7
PHLB	121C	Phlebotomist Clinical Practice	5
		Total	12

Course Descriptions

PHLB 101L Phlebotomist Theory and Lab 7 credit hours (Prerequisite: enrollment criteria for the program; corequisite: PHLB 121C) During this six-week class students learn the procedures for collecting blood and other specimens from patients. Theory associated with the procedures is stressed. An introduction

to the anatomy and physiology of the major body systems, computer processes and laboratory clerical duties is also included. (10 theory + 15 lab hours a week)

PHLB 121C Phlebotomist Clinical Practice 5 credit hours (prerequisite: CPR certification; corequisite: PHLB 101L) This is a nine-week class in which students practice skills and apply the theory learned in class during supervised clinical practice in city hospitals and/or clinics.



RESPIRATORY CARE PROGRAMS

Respiratory care is a health profession which specializes in diagnostic testing, therapeutic treatment and critical care support for patients suffering from life-threatening or chronically disabling cardiopulmonary disorders.

A respiratory therapy technician is a graduate of a 12-month certificate program and is capable of performing at the entry level of respiratory care practice.

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

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, perform diagnostic tests and treatments, research treatment effectiveness in cardiopulmonary disease and act as consultants to physicians, nurses and other health care specialists concerning application of respiratory care to cardiopulmonary pathology. 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 formal training programs.

Employment opportunities for respiratory care practitioners are available 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 and rehabilitation services for pulmonary patients.

RESPIRATORY THERAPY TECHNICIAN

Certificate Program Main Campus Fall Term

The Respiratory Therapy Technician (RTT) program teache 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 (CRTT) credentials. Successful completion of this exam also allows individuals to be recognized as licensed Respiratory Care Practitioners (RCP) in New Mexico.

Orientation sessions for the Respiratory Therapy Technician Program will be scheduled regularly; students should contact the Health Occupations Department for dates and times. Orientation sessions will include detailed information about the petitioning and selection process, program requirements and general information about respiratory therapy as a career including the physical demands of the job. Anyone interested in the Respiratory Therapy Technician program is strongly encouraged to attend one of these orientation sessions. In addition, it is strongly recommended that applicants review prerequisites and program requirements with the Health Occupations counselor.

To be eligible to enroll in RTT courses students must:	
☐ Declare RTT as their major at T-VI	
☐ Achieve a T-VI cumulative GPA of 2.0 or higher	
☐ Be a high school graduate or equivalent as stated on the T-VI application	on
☐ Fulfill requirements in English, math, reading and science by qualify	ying
scores on the ACT or SAT, or placement exams, or successful completio	n of
100-level courses or college course work.	
☐ Complete BIO 123/124L (or its equivalent) with a grade of C or better.	

Students are responsible for meeting the eligibility requirements. Once all requirements are fulfilled, students may petition for enrollment in the core RTT curriculum.

If the number of eligible students exceeds the number of positions available, preference will be given to those who have completed all required Arts & Sciences courses for the RTT curriculum. If necessary, petitioners will then be ranked by date of completion of eligibility requirements. Additional positions may be made available for individuals with established residence in rural communities of New Mexico and the desire to return there for employment in respiratory care. The policy for admission to the program under this condition is available from the director of Respiratory Care Programs.

Arts & Sciences courses listed in the curriculum may be taken prior to entering the program. It is highly recommended that students complete as many of the Arts & Sciences courses as possible prior to entering RTT core courses. Priority for selection is based upon the number of required Arts & Sciences courses completed.

Students selected to enroll in RTT courses for the fall term must have a physical exam and submit a completed health form with evidence of current immunizations before beginning clinical courses.

Students pay a \$90 equipment fee when they begin the program to cover the cost of the required uniform, stethoscope, identification badges, CPR certification, parking fees and preventive lab tests in case of needle stick exposure. Students also pay a \$25 equipment fee when they begin their last clinical course to cover the cost of assessment exams to prepare for national board tests. Students keep their exams and scoring analyses for study after graduation. Additional student costs include purchase of bandage scissors, graduation pin, pre-entrance physical exam and textbooks.

Students must earn a minimum grade of C or better in all courses to advance to the next term and graduate. A 2.0 GPA is required to graduate from the program.

Graduates of the Respiratory Therapy Technician program may continue their training by completing a second year of coursework in the Respiratory Therapist associate degree program. In addition, students who complete Terms I and II of the Technician Program may enter Respiratory Therapist courses under advanced placement (See Respiratory Therapist Advanced Placement).

Respiratory Therapy Technician Program

		Credit Hours
RTT	110	Respiratory Therapy Principles and Practices I 3
RTT	111	Respiratory Therapy Principles and Practices II 3
RTT	112	Respiratory Therapy Principles and Practices III 3
RTT	115L	Respiratory Therapy Lab I1
RTT	116L	Respiratory Therapy Lab II 1
RTT	117L	Respiratory Therapy Lab III1
RTT	121C	Clinical Experiences I5
RTT	122C	Clinical Experiences II5
RTT	123C	Clinical Experiences III5
¹ RTT	131	Physics of Respiratory Therapy3
RTT	132	Cardiopulmonary Physiology3
RTT	133	Pharmacology of Respiratory Therapy3
		Required Arts & Sciences Courses
² BIO 136	5/139L I	Human Anatomy and Physiology with Lab4
CSCI	101	Computer Literacy3-4
		Total43-44

¹A college physics course may be substituted for RTT 131.

Note: Additional college courses may be substituted 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 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.

In order to satisfy prerequisite and corequisite requirements along with RTT courses, the following order of coursework is recommended:

Fall term:

RTT 110, RTT 115L, RTT 121C, RTT 131 and BIO 136/139L

Winter term:

RTT 111, RTT 116L, RTT 122C, RTT 133 and CSCI 101

Summer term: RTT 112, RTT 117L, RTT 123C, RTT 132

Respiratory Therapy Technician Advanced Placement

There are two ways in which advanced standing can be granted to Respiratory Therapy Technician applicants: transfer and challenge. Advanced placement means enrollment in RTT coursework above the level of RTT 110. Persons wanting to transfer or challenge RTT courses should contact the Health Occupations Department.

Transfer: transfer credit for equivalent arts and science courses completed at a regionally accredited technical-vocational school, college or university. Entry will be granted on a space-available basis. Transfer credit may be awarded for respiratory therapy tech-

²BIO 237/247L and BIO 238/248L may be substituted for BIO 136/139L.

nician courses 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: challenge exams may be administered for people with documented respiratory therapy work experience. There is a \$15 fee for each challenge exam.

Challenge and transfer students accepted must submit transcripts of prior education and be a high school graduate or possess a GED diploma. They must also meet all eligibility requirements for selection into the program and have acceptable ACT scores if applicable. They must meet all requirements for selection to the program, including arts and science courses if applicable. They must pay required T-VI fees, purchase school uniforms and other needed equipment, have current CPR certification and have a physical examination before admission.

Course Descriptions

RTT 110 Respiratory Therapy Principles and Practices I

3 credit hours

(Prerequisite: permission of program director; pre- or corequisite: BIO 136/139L; corequisites: RTT 115L, RTT 121C, RTT 131) This course covers respiratory therapy as a health sciences profession. It also covers practices of basic respiratory care including cardiopulmonary assessment, medical gas administration, oxygen therapy, microbiology, infection control, equipment maintenance, incentive breathing exercises and chest physiotherapy.

RTT 111 Respiratory Therapy Principles and Practices II

3 credit hours

(Prerequisites: BIO 136/139L, RTT 110, RTT 115L, RTT 121C, RTT 131; pre-or corequisite: CSCI 101; corequisites: RTT 116L, RTT 122C, RTT 133) Additional theory of respiratory therapy procedures is presented with emphasis on positive pressure breathing treatments, airway management, pulmonary function testing, arterial puncture and blood gas analysis. The procedure of administering medicated aerosol therapy is taught.

RTT 112 Respiratory Therapy Principles and Practices III

3 credit hours

(Prerequisites: BIO 136/139L, CSCI 101, RTT 111, RTT 116L, RTT 122C; corequisites: RTT 117L, RTT 123C, RTT 132) Concepts and principles of critical care are introduced for treating patients with life-threatening diseases. Emphasis is on learning mechanical ventilatory support for neonatal, pediatric and adult patients. Concepts and theories of critical care medicine are introduced.

RTT 115L Respiratory Therapy Lab I

1 credit hour

(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 under simulated patient situations.

RTT 116L Respiratory Therapy Lab II

1 credit hour

(Corequisites: RTT 111, RTT 122C, RTT 133) Students practice additional respiratory care procedures learned in RTT 111. Students use equipment in simulated patient situations.

RTT 117L Respiratory Therapy Lab III

1 credit hour

(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.

RTT 121C Clinical Experiences I

5 credit hours

(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.

RTT 122C Clinical Experiences II

5 credit hours

(Corequisites: RTT 111, RTT 116L, RTT 133) Supervised clinical experiences continue in area hospitals and health care facilities. Students also visit patients in the home setting.

RTT 123C Clinical Experiences III

5 credit hours

(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.

RTT 131 Physics of Respiratory Therapy

3 credit hours

(Corequisites: RTT 110, RTT 115L, RTT 121C) Basic concepts of physics are covered relating to physiology of the lungs, gas laws, gas flow and mechanics of breathing. Concepts are applied to operation of respiratory therapy equipment. Basic math calculations are covered relating to respiratory physiology.

RTT 132 Cardiopulmonary Physiology (3 cr)

(Prerequisites: BIO 136/139L; 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.

RTT 133 Pharmacology of Respiratory Therapy 3 credit hours

(Prerequisites: BIO 136/139L, RTT 110, RTT 115L, RTT 121C, RTT 131; corequisites: RTT 111, RTT 116L, RTT 122C) Concepts and principles of pharmacologic agents used in cardiopulmonary care are presented. Coursework includes study of biologic interactions, dosage calculations, side effects and indications for using drugs in cardiopulmonary diseases. Application to respiratory care, therapeutic and diagnostic procedures is covered.

RTT 121C, RTT 122C, RTT 123C: During each term, students meet for formal lectures on the pathophysiology of the cardiopulmonary system. The lectures are given by the Respiratory Therapy Program's medical 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. Students are required to develop written and verbal communication skills by completing case studies, article reviews and pathology reports. They must also present oral reports to the class and the medical director. Students develop interpersonal communication skills through patient interactions in the clinical settings. They must also develop appropriate interactive communication skills during physician rounds supervised by the program's medical director.

RESPIRATORY THERAPIST

Associate of Science Degree Main Campus Summer Term

The Respiratory Therapist (RT) Program includes theory, laboratory and clinical coursework progressing from technician or entry level through the advanced practitioner level. The curriculum includes basic and advanced 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 extensive instruction by faculty from the University of New Mexico Medical Center and School of Medicine. An associate of science degree is awarded 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 to obtain Certified Respiratory Therapy Technician (CRTT) and Registered Respiratory Therapist (RRT) credentials. Successful completion of the certification exam qualifies individuals to become recognized as licensed Respiratory Care Practitioners (RCP) in New Mexico.

Orientation sessions for the Respiratory Therapist Program will be scheduled regularly; students should contact the Health Occupations Department for dates and times. Orientation sessions will include detailed information about the petitioning and selection process, program requirements and general information about Respiratory Therapist as a career including the physical demands of the job. Anyone interested in the Respiratory Therapist program is strongly encouraged to attend one of these orientation sessions. In addition, it is strongly recommended that applicants review prerequisites and program requirements with the Health Occupations counselor.

To be eligible to enroll in RT courses students must:
☐ Achieve a T-VI cumulative GPA of 2.0 or higher.
☐ Be a high school graduate or equivalent as stated on the T-VI application.
☐ Fulfill requirements in English, math, reading and science by qualifying
scores on the ACT or SAT, or placement exams, or successful completion of
100-level courses or college course work.
☐ Provide documented evidence of completed respiratory therapy technician
level courses and prerequisite arts and science courses. Courses completed
in an approved technician or therapist program will be applied toward the
associate of science degree.

Students are responsible for meeting the eligibility requirements. Once all requirements are fulfilled, students may petition for enrollment in the core RT curriculum.

If the number of eligible students exceeds the number of positions available, preference will be given to those who have completed all required Arts & Sciences courses for the RT curriculum. If necessary, petitioners will be randomly selected.

Arts & Sciences courses listed in the curriculum may be taken prior to entering the program. It is highly recommended that students complete as many of the Arts & Sciences courses as possible prior to entering the RT core courses. *Priority for selection is based upon the number of required Arts & Sciences courses completed*.

Students selected to enroll in RT courses in the summer term must have a physical exam and submit a completed health form with evidence of current immunizations before beginning clinical courses.

Respiratory therapist students pay a \$20 equipment fee when they begin the major courses. This covers the cost of the identification badges, parking fees and preventive tests in case of needle stick exposure. Students also pay a \$25 equipment fee when they begin their last clinical course to cover the cost of assessment exams to prepare for national board tests. Students keep their exams and scoring analyses for study after graduation. In addition, students are required to purchase their textbooks, have a current CPR certification, lab coats, a stethoscope, bandage scissors and a pre-entrance physical exam prior to the first clinical course. Students may purchase a graduation pin from the program upon completion of all coursework.

Students must earn a minimum grade of C or better in all courses to advance to the next term and graduate. A 2.0 GPA is required to graduate from the program.

Respiratory Therapist Program

		Credit Hours
		Technician Level
RTT	110	Respiratory Therapy Principles and Practices I 3
RTT	111	Respiratory Therapy Principles and Practices II 3
RTT	11 5 L	Respiratory Therapy Lab I
RTT	116L	Respiratory Therapy Lab II1
RTT	-121C	Clinical Experiences I5
RTT	122C	Clinical Experiences II5

lange.			
¹RTT	131	Physics of Respiratory Therapy	3
RTT	133	Pharmacology of Respiratory Thera	py
		Therapist Level	·
		-	_
RT	210	Advanced Respiratory Therapy I	
RT	215L	Advanced Respiratory Therapy Lat	
RT	221C	Advanced Clinical Experiences I	4
RT	211	Advanced Respiratory Therapy II	
RT	216L	Advanced Respiratory Therapy Lab	II1
RT'	222C	Advanced Clinical Experiences II	4
RT	212	Advanced Respiratory Therapy III	3
RT	217L	Advanced Respiratory Therapy Lab	III1
RT	223C	Advanced Clinical Experiences III.	
		•	1
		Required Arts & Sciences Cours	es '
² BIO	136	Human Anatomy & Physiology	<u>]</u> 1
² BIO	139L	Human Anatomy & Physiology Lab	3
CSCI	101	Computer Literacy	<u> </u> 3_4
MATH	120	Intermediate Algebra	13_4
ENG	101	Intermediate Algebra College Writing	I3
CHEM	111	Introduction to Chemistry	
СНЕМ	112L	Introduction to Chemistry Lab	
PHIL	245M	Biomedical Ethics	
BIO	239	Microbiology	
BIO	239L	Microbiology Lab	
		05 or SOC 101	
Miccuye.	1911		
		Total	

¹A college physics course may be substituted for RTT 131.

Suggested order of coursework: In order to satisfy prerequisite and corequisite requirements along with RTT and RT courses, the following order of coursework is recommended:

Fall Term: RTT 110, RTT 115L, RTT 121C, RTT 13 and BIO 136/139L

Winter Term: RTT 111, RTT 116L, RTT 122C and RTT 133, CSCI 101

Summer Term: RT 210, RT 215L, RT 221C and MATH 120, ENG 101

Fall Term: RT 211, RT 216L, RT 222C and CHEM 1,1/112L, PHIL 245M

Winter Term: RT 212, RT 217L, RT 223C and BIO 239/239L, Elective

Respiratory Therapist Advanced Placement

There are two ways in which advanced placement can be granted to Respiratory Therapist applicants: transfer and challenge. Advanced placement means enrollment in

²BIO 237/247L and BIO 238/248L may be substituted for BIO 136/139L.

RT coursework above the level of RT 210. Persons wanting to transfer or challenge RT courses should contact the Health Occupations Department.

Transfer: transfer credit for equivalent coursework completed at a regionally accredited technical-vocational school, college or university. Entry will be granted on a space available basis.

Transfer credit awarded for technician or therapist courses 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: Technician graduates with documented work experience in respiratory therapy may apply to challenge portions of the therapist curriculum. There is a \$15 fee for each challenge exam.

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 to the Therapist program including arts and science courses required for the associate of science degree in respiratory therapy.

Course Descriptions

RT 210 Advanced Respiratory Therapy I 3 credit hours (Prerequisites: permission of program director, CSCI 101, RTT 111, RTT 116L, RTT 122C, RTT 133; corequisites: RT 215L, RT 221C; pre- or corequisites: MATH 120, ENG 101) The course presents an integrated study of cardiopulmonary assessment and diagnosis for the advanced practitioner. Correlation of cardiopulmonary anatomy, physiology and pathophysiology with evaluation of cardiac and pulmonary function is presented.

RT 211 Advanced Respiratory Therapy II 3 credit hours (Prerequisites: RT 210, RT 215L, RT 221C; corequisites: RT 216L, RT 211C; pre-or corequisites: CHEM 111/112L, PHIL 245M) This course presents concepts of adult critical care medicine for the advanced practitioner. Topics cover adult intensive care and pathophysiology of diseases which require critical care medicine for adults.

RT 212 Advanced Respiratory Therapy III 3 credit hours (Prerequisites: RT 211, RT 216L, RT 222C; pre- or corequisites: BIO 239/239L, elective; corequisites: RT 223C and RT 217L) This course presents concepts of critical care medicine for children and infants. An integrated study in the concepts of rehabilitative practice and home health care for patients with chronic cardiopulmonary diseases is provided.

RT 215L Advanced Respiratory Therapy Lab I 1 credit hour (Corequisites: RT 210, RT 221C) Students are taught clinical assessment techniques, cardiopulmonary anatomy and physiology, pulmonary function testing 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 1 credit hour. (Corequisites: RT 211, RT 222C) Students practice mechanical ventilation procedures related to critical care medicine for adults. Activities include simulated patient situations using state-of-the-art equipment in the learning laboratory and the use of computer simulation programs.

RT 217L Advanced Respiratory Therapy Lab III 1 credit hour (Corequisites: RT 212, RT 223C) Students practice mechanical ventilation procedures related to critical care medicine for children and infants. Activities include simulated patient situations using state-of-the-art equipment in the learning laboratory and the use of computer simulation programs.

*RT 221C Advanced Clinical Experiences I 4 credit hours (Corequisites: RT 210, RT 215L) Students are supervised in the applications of advanced respiratory care in clinical settings with emphasis on problem-solving and decision-making skills. Experiences include cardiopulmonary function and evaluation activities. Related activities correlate the cardiopulmonary system in health and disease.

*RT 222C Advanced Clinical Experiences II 4 credit hours (Corequisites: RT 211, RT 216L) Students are supervised in the clinical application of respiratory care in adult critical care environments. Emphasis is placed on development of problem-solving and decision-making skills, patient evaluation skills and the evaluation of therapeutic care plans.

*RT 223C Advanced Clinical Experiences III 4 credit hours (Corequisites: RT 212, RT 217L) Students are supervised in the clinical application of respiratory care in pediatric and neonatal critical care environments and for home health care and pulmonary rehabilitation. Additional experiences are provided in special clinical areas chosen by each student.

RT Elective

RT 296 Special Topics in Respiratory Care 1–6 credit hours (Prerequisites: permission of program director, RT 223C) Students participate in supervised learning activities of advanced, specialized practices. Areas of focus include rural health care, interdisciplinary problem-based learning, cardiopulmonary diagnostics, specialized perinatal/pediatric or adult critical care and expanded practices of Respiratory Care.

*RT 221C, RT 222C, and RT 223C: During each term, students meet for formal lectures on the pathophysiology of the cardiopulmonary system. These lectures are given by the program's medical director and 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. Students are required to develop written and verbal communication skills by completing case studies, article reviews and pathology reports. They must also present oral reports to the class and the medical director. Students develop interpersonal communication skills through patient interactions in the clinical settings. They must also develop appropriate interactive communication skills during physician rounds supervised by the program's medical director.



Technologies

The high-skilled, high-tech jobs of the 21st century will demand specialized entry-level training and skill upgrading, and the Technologies Department offers both, along with state-of-the-art equipment to support them. Programs in the Technologies Department are among the longest at the Institute. The time necessary to complete most of the Technologies programs varies from 16 to 24 months depending on the student's course load.

To enter Technologies courses, the student must meet the prerequisites of MATH 099 or equivalent, reading at a minimum of eighth-grade level and CP 176L or equivalent.

Students in Electronics Technology, Business Computer Programming Technology and Architectural/Engineering Drafting Technology may choose to complete an associate of applied science degree or a certificate. Students in Electronics Technology must choose one of the four options: Consumer Electronics/Communication, Digital Computer Networking, Laser Electro-Optics or Process Control (replaces Instrumentation and Control Technology). Students in Architectural/Engineering Drafting Technology must choose one of two options: Engineering or Housing.

Because the Technologies programs are in high demand, interested persons should apply as early as possible. It is strongly recommended that all beginning students meet with the department counselor or academic advisor to plan an individual course of study and to review necessary prerequisites.

Electronics Engineering Technology courses 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 in most Technologies majors each term except summer (Design Draft-

ing Engineering Technology and Electronic Engineering Technology do not offer beginning courses in the summer).

Some credit courses are offered in the evening. Information is available in the current schedule of classes.

Challenge examinations are available for most courses numbered below 200. The cost is \$15 per examination.

A number of optional courses are available to enhance the education of those students meeting the required prerequisites. Optional courses and courses numbered 200 or above may not be offered every term and are subject to cancellation before the first day of the term due to insufficient enrollment; a minimum of 12 students is required.

Students enrolled in Technologies courses must purchase their textbooks and some courses require a supply fee. Students needing financial support should contact the Financial Aid Office.

Students working toward an associate degree or a certificate must earn a grade of C or better in each Technologies course. Credit/no credit is not a grading option for students in Technologies courses except Manufacturing Specialist.

ARCHITECTURAL/ENGINEERING DRAFTING TECHNOLOGY

Associate of Applied Science Degree/ Certificate Program Main Campus

Architectural/Engineering Drafting Technology offers career preparation for persons with a strong interest in building design and construction. Following a general preparation in architectural drafting, the student chooses either the Engineering or Housing option. Students in both options devote their final term to an intensive study of the A/E uses of computer assisted drafting (CAD).

The program integrates mathematics, technical writing and blueprint reading into the technical courses at all levels. Computer applications are emphasized throughout the program. The curriculum 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. The potential for advancement into jobs with increasing responsibility and wider scope is good.

To enter into Architectural/Engineering Drafting Technology courses the student must meet the prerequisites of TECH 101 (Mathematics for Technologies), reading at a minimum of eighth-grade level, CP 176L or equivalent and ENG 100. If a student takes MATH 099 or TECH 101 it is recommended that he or she also take ART 260 or ENG

101. ARDR 130 is not a required course and does not meet the requirements for ARDR 107L.

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. ARDR 180, 181 and 182 cannot be substituted for ARDR 213 and ARDR 214L. Students must purchase their own drafting tools.

It is strongly recommended that all beginning students meet with the department counselor or academic advisor to plan an individual course of study. Optional courses and courses numbered 200 or above may not be offered every term and are subject to cancellation before classes start due to insufficient enrollment. Entry into a course without the prerequisite may be allowed with the permission of the academic advisor.

Architectural/Engineering Drafting Technology Program

Certificate and Degree Requirements

			Credit Hours
		Term 1	
ARDR	107L	Architectural Drafting I	7
ARDR	108	Architectural Mathematics	4
*ARDR	109	Building Materials and Methods I	 4
*ARDR	176	Orientation to the Construction Indus	ry2
		Term 2	
ARDR	113	Site Analysis	2
ARDR	114	Specifications and Estimating Building Materials and Methods II	2
ARDR	115	Building Materials and Methods II	4
ARDR	119L	Architectural Drafting II	7
	-	Subtotal	32
	Rec	quired Courses Common to Both Op	pions
ARDR	213	CAD Analysis	4
ARDR	214L	Architectural CAD	
ARDR	221	Architectural/Engineering Drafting Sc	minar 1
		-	
		Engineering Option	
ARDR	201	Structural Systems Analysis	4
ARDR	203L	Structural Systems Drafting	7
ARDR	204L	Civil Drafting	
ARDR	212L	M/E Systems Drafting	5
ARDR	215	M/E Systems Analysis	6

ARDR	217	Project Management	3
		Subtotal	1
		Housing Option	
ARDR	174	Housing	2
ARDR	206	Environmental Systems Analysis	3
	or		
ARDR	275	Design Applications for Interiors	
ARDR	209L	Architectural Design	
ARDR	210L	Sketching and Rendering	
ARDR	211	Housing Construction Analysis	
ARDR	219	Housing Construction Management	
ARDR	220L	Housing Drafting	
		Subtotal7	2
*CP 176I	is a pr	erequisite for this course.	
	Ad	ditional Courses Required for Certificate	
BA	111	Communications (7 ¹ / ₂ weeks)	2
	or	, ,	
ENG	101	College Writing	3
BA	131	Human Relations (71/2 weeks)	2
	or		
PSY	105	Introduction to Psychology	3
	Total	Credits for Certificate75–7	8
	A	dditional Courses Required for Degree	
ART	260	Architectural History: Ancient through Modern	3
COMM	221	Interpersonal Communications	
	or	•	
ENG	101	College Writing	
MATH	120	Intermediate Algebra	3
PHIL	245T	Ethics of Technology	
	or		
PSY	105	Introduction to Psychology	
PHYS	102	Introduction to Physics	3
		Total Credits for Degree86-8	7
		Optional Courses#	
ARDR	130	Drafting Fundamentals	3
ARDR	175	General Contractor Preparation	
ARDR	180	Fundamentals of Computer Assisted Drafting	

ARDR	181	Intermediate Computer Assisted D	afting3
ARDR	182	Advanced Computer Assisted Draf	ing3
ARDR	232	Architecture and Construction Plan	ning4
ARDR	261L	Construction Surveying	3
ARDR	295	CAD for Professional Drafters	5
ARDR	296	Special Problems	3
ARDR	297	Cooperative Education	3
ARDR	299	Internship	3

^{*}Optional courses are used to enhance the education of the student. These courses may be taken at any time when prerequisites are met.

Course Descriptions

ARDR 107L Architectural Drafting I

7 credit hours

(Pre- or corequisites: ARDR 108, ARDR 109, ARDR 176) The fundamentals of architectural graphic representation are introduced as the foundation of all A/E drafting courses. Basic common assembly systems are explored and schedules are introduced. (3 theory + 12 lab hours a week) Supply fee: \$15. Note: Students must provide their own drafting kit.

ARDR 108 Architectural Mathematics

4 credit hours

(Prerequisite: TECH 101) Basic concepts of geometry and trigonometry are covered with an emphasis on architectural and engineering applications and calculator use. Students must provide a full function scientific calculator with a ten-digit display. (4 theory + 1 lab hours a week)

ARDR 109 Building Materials and Methods I

4 credit hours

(Prerequisites: CP 176L, ENG 100 and TECH 101 or equivalent; corequisites: ARDR 108, ARDR 176) Basic common materials, systems and assemblies with wide applications in the building industry are examined. (4 theory + 1 lab hours a week)

ARDR 113 Site Analysis

2 credit hours

(Prerequisites: ARDR 107L, ARDR 108, ARDR 109, ARDR 176) Analytical factors of site design are examined, such as orientation and view, sound and light intrusions, contours and grading, drainage and foliage. Planning aspects of site size are introduced. (1 theory + 4 lab hours a week)

ARDR 114 Specifications and Estimating

2 credit hours

(Prerequisites: ARDR 107L, ARDR 108, ARDR 176; pre- or corequisites: ARDR 113, ARDR 115) The theory and structure of specifications, data systems and sources, testing and code referencing are introduced, providing a background for exercises in specification writing and analysis. Estimating systems, takeoffs, coordination of specifications with costing systems and bidding decisions are then covered. (2 theory + 1 lab hours a week)

ARDR 115 Building Materials and Methods II 4 credit hours (Prerequisites: ARDR 107L, ARDR 108, ARDR 109, ARDR 176) This course is a continuation of ARDR 109 with an intensified examination of interior and exterior finish materials and systems and an introduction to structural materials and systems. (4 theory + 1 lab hours a week)

ARDR 119L Architectural Drafting II 7 credit hours (Prerequisites: ARDR 107L, ARDR 108, ARDR 176; pre- or corequisite: ARDR 115) In this continuation of ARDR 107L, the student develops representative architectural working drawings using the appropriate conventions of graphic, dimensioning and notation systems. (3 theory + 12 lab hours a week) Supply fee: \$15

ARDR 130 Drafting Fundamentals 3 credit hours
This course covers the basics of technical drafting. (3 theory + 2 lab hours a week)
Supply fee: \$15

ARDR 174 Housing 2 credit hours (Prerequisites: ARDR 113, ARDR 114, ARDR 115, ARDR 119L) 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. (1 theory + 3 lab hours a week)

ARDR 175 General Contractor Preparation 3 credit hours
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 contract management are covered. (2 theory +
3 lab hours a week)

ARDR 176 Orientation to the Construction Industry 2 credit hours (Prerequisites: CP 176L, ENG 100 or equivalent) Students are introduced to the industry and the variety of jobs available. Topics include the construction environment, the related disciplines of architects, engineers, landscape architects, interior designers, contractors, suppliers, insurers and other consultants, and the drawings typical of each discipline. (1 theory + 3 lab hours a week)

ARDR 180 Fundamentals of Computer Assisted Drafting 3 credit hours (Prerequisite: CP 176L) This course introduces the student to the fundamentals of computer assisted drafting using AutoCAD or Intergraph Microstation CAD. (2 theory + 3 lab hours a week) Supply fee: \$15

ARDR 181 Intermediate Computer Assisted Drafting 3 credit hours (*Prerequisite: ARDR 180*) Topics covered include customized menu making, attribute editing and extracting, and the drawing of isometrics. (2 theory + 3 lab hours a week) Supply fee: \$15

ARDR 182 Advanced Computer Assisted Drafting 3 credit hours (Prerequisite: ARDR 181) This course is an introduction to three-dimensional CAD modeling using AutoCAD to enhance graphic representation and visualization. (2 theory + 3 lab hours a week) Supply fee: \$15

ARDR 201 Structural Systems Analysis 4 credit hours (Prerequisites: ARDR 113, ARDR 114, ARDR 115, ARDR 119L) The basic principles of physics as they apply to construction and structural analysis are covered. Students are introduced to structural design in wood, steel and concrete. Students learn to set up and solve elementary beam design problems. (3 theory + 2 lab hours a week)

ARDR 203L Structural Systems Drafting 7 credit hours (Prerequisites: ARDR 113, ARDR 114, ARDR 115, ARDR 119L; pre- or corequisite: ARDR 201) Students are introduced to the conventions of structural drafting. They develop representative drawings of pre-cast and site-cast concrete, structural steel and heavy timber structures. Development of graphic skills in a variety of media is emphasized. Non-mathematical concepts of building structures and methods of construction are covered. (3 theory + 12 lab hours a week) Supply fee: \$15

ARDR 204L Civil Drafting I 3 credit hours (Prerequisites: ARDR 113, ARDR 114, ARDR 115, ARDR 1194) This course provides an introduction to the concepts and practice of civil drafting as they relate to architecture, including an exploration of contours, grading, cut and fill, cross sections, boundaries and subdivisions. (1 theory + 5 lab hours a week)

ARDR 206 Environmental Systems Analysis 3 credit hours (Prerequisites: ARDR 113, ARDR 114, ARDR 115, ARDR 119L) Students explore current energy conservation techniques, including passive solar design. Concepts of comfort zones, building orientation, heat transfer, thermal mass and calculations are introduced. (2 theory + 3 lab hours a week)

ARDR 209L Architectural Design 5 credit hours (Prerequisites: ARDR 113, ARDR 114, ARDR 115, ARDR 119L) 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. (3 theory + 7 lab hours a week) Supply fee: \$15

ARDR 210L Sketching and Rendering 5 credit hours (Prerequisites: ARDR 113, ARDR 114, ARDR 115, ARDR 119L) Students make various drawings to develop 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. Techniques of rendering and illustration are explored. Students work with perspective drawings in color media. (3 theory + 7 lab hours a week) Supply fee: \$15

ARDR 211 Housing Construction Analysis 4 credit hours

(Prerequisites: ARDR 113, ARDR 114, ARDR 115, ARDR 119L) This course provides an application of previous building materials and methods concepts to housing of all kinds including an investigation of local and regional materials and practices. (3 theory + 2 lab hours a week)

ARDR 212L M/E Systems Drafting

5 credit hours

(Prerequisites: ARDR 113, ARDR 114, ARDR 115, ARDR 119L; pre- or corequisite: ARDR 215) The student receives instruction in conventional drafting methods of mechanical and electrical systems including overlaying electrical, heating, ventilation and plumbing systems on architectural views. Engineering drawings are developed and engineering graphic skills are emphasized. (3 theory + 7 lab hours a week) Supply fee: \$15

ARDR 213 CAD Analysis

4 credit hours

(Prerequisite: completion of Engineering or Housing option; corequisite: ARDR 214L) This course covers beginning to advanced CAD concepts and commands as they apply to the production and coordination of A/E working drawings. (1 theory + 9 lab hours a week)

ARDR 214L Architectural CAD

6 credit hours

(Prerequisite: completion of Engineering or Housing option; corequisite: ARDR 213) The student develops representative working drawings using cad software commonly employed in the A/E industry. (2 theory + 13 lab hours a week) Supply fee: \$15

ARDR 215 M/E Systems Analysis

6 credit hours

(Prerequisites: ARDR 113, ARDR 114, ARDR 115, ARDR 119L) General theory and layout information and code requirements for non-residential systems are studied. Topics include lighting, plumbing and air conditioning. (4 theory + 6 lab hours a week)

ARDR 217 Project Management

3 credit hours

(Prerequisites: ARDR 113, ARDR 114, ARDR 115, ARDR 119L; pre- or corequisite: ARDR 215) The student is introduced to the skills required to manage a building project. Topics include contracts, fees, bidding, scheduling and drawing coordination. (2 theory + 3 lab hours a week)

ARDR 219 Housing Construction Management 3 credit hours

(Prerequisites: ARDR 113, ARDR 114, ARDR 115, ARDR 119L; pre- or corequisite: ARDR 211) 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 the interrelationships among them. (2 theory + 3 lab hours a week)

ARDR 220L Housing Drafting

7 credit hours

(Prerequisites: ARDR 113, ARDR 114, ARDR 115, ARDR 119L; pre- or corequisite: ARDR 211) Students develop architectural working drawings for a variety of housing types. (3 theory + 12 lab hours a week) Supply fee: \$15

ARDR 221 Architectural/Engineering Drafting Seminar 1 credit hour (Prerequisite: completion of Engineering or Housing option; pre- or corequisites: ARDR 213, ARDR 214L) The student develops a resume and presents a cumulative portfolio to a review committee. Needs, requirements, personnel procedures and expectations of employers and trends of the professional community are examined. (1 theory + 1 lab hour a week)

ARDR 232 Architecture and Construction Planning 4 credit hours
This course covers the planning cycle for a residential construction project. (4 theory + 1 lab hours a week)

ARDR 261L Construction Surveying

3 credit hours

(Pre- or corequisite: ARDR 204L or consent of academic advisor) The student is introduced to the basic techniques and equipment used in surveying including tape, level and theodolite. Note-keeping methods are emphasized. Field work and related computations cover leveling, distance and angle measurement and traversing related to mapping. (1 theory + 6 lab hours a week)

ARDR 275 Design Applications for Interiors 3 credit hours (Prerequisites: ARDR 113, ARDR 114, ARDR 115, ARDR 119L; pre- or corequisites: ARDR 174, ARDR 209L) This course provides an introduction to basic color systems and psychology, light and lighting, space planning, code applications of finish selections, fabrics and furniture styles.

ARDR 295 CAD for Professional Drafters

5 credit hours

(Prerequisite: CP 176L and completion of a postsecondary architectural drafting program or permission of the academic advisor) This class assumes professional drafter's skills and knowledge. The course covers CAD concepts and skills from a beginner's level to an advanced level. Supply fee: \$15

ARDR 296 Special Problems

3 credit hours

(Prerequisites: ARDR 113, ARDR 114, ARDR 115, ARDR 119L and 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 and drafting techniques appropriate to the problem. An oral presentation may be required.

ARDR 297 Cooperative Education

3 credit hours

(Prerequisite: permission of the academic advisor) In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate, defined training program. The position held by the student is a paid position.

ARDR 299 Internship

3 credit hours

(Prerequisite: permission of the academic advisor) In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate, defined training program. The position held by the student is not a paid position.

TECH 101 Mathematics for Technologies

4 credit hours

(Prerequisite: MATH 099 or equivalent) Basic concepts of mathematics including introductory algebra, ratio and proportion, unit conversions, logarithms, scientific notation and calculator usage are covered as a preparation for Technologies applied mathematics courses.

BUSINESS COMPUTER PROGRAMMING TECHNOLOGY

Associate of Applied Science Degree/ 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 to a career in the computer programming field.

Computers currently used at T-VI are the IBM 4361 and AS400 and IBM microcomputers and compatibles. Mainframe, mini- and microcomputers and local area networks are used in Business Computer Programming courses.

Courses numbered below 200 give students a sound background in fundamental skills used on a wide variety of computers and computer-related equipment. Courses numbered above 200 continue to build computer application skills with emphasis on problem solving techniques and the interaction between people and machines/computers/technology. A mainframe environment is used to teach three widely used business programming languages while three additional languages are taught on microcomputers. Optional courses also are available to students and the public.

Students entering Business Computer Programming Technology courses must satisfy the prerequisites of TECH 101 (Mathematics for Technologies) and reading at a minimum eighth-grade level. If a student takes MATH 099 or TECH 101, it is recom-

mended that the student also take the computer programming course from the Developmental Studies Department and CP 176L before taking courses within the major.

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

Some courses require a supply fee at the beginning of the term.

It is strongly recommended that all beginning students meet with the department counselor to plan an individual course of study. Optional courses and courses numbered 200 or above may not be offered every term and are subject to cancellation before classes start due to insufficient enrollment.

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

Business Computer Programming Technology Program

Certificate Requirements

		ι	Crean nours
CP	103	Mathematics for Computer Programm	ers4
CP	104	Data Processing Accounting I	4
CP	105	Fundamentals of Computer Programm	ing6
+CP	101A	ANSI COBOL	3
	and	, ·	
+CP	101B	ANSI COBOL	3
	or 🗸		
+CP	101L	ANSI COBOL	
CP	115	Internal Storage and File Structure	3
CP	116	Business Systems Analysis	3
+CP	111A	Advanced ANSI COBOL	3
	and		
+CP	111B	Advanced ANSI COBOL	3
	or		
+CP	111L	Advanced ANSI COBOL	6
CP	214L	Report Program Generator III/400	
CP	202L	Assembler Language Programming	6
_CP	272L-	C Language Programming	3
CP .	~201L	Interactive Programming Techniques.	
CP	213	Database Programming and Concepts	•
CP	216L	Microcomputer Operating Systems	3
CP	283	Introduction to Computer Networks	
Require	d option	al course numbered above 200	
		Subtotal	59
			1
	-	Additional Certificate Requirement	ts
D.4	111	Ginstinut (71/a manis)	1 .
BA	111	Communications (7 ¹ /2 weeks)	

	OI		
ENG	101	College Writing	3
BA	131	Human Relations (7 ¹ /2 weeks)	2
	OL		
PSY	105	Introduction to Psychology	3
		Total Credits for Certificate63-65	5

*Students may take either the A and B courses or the L course. To be given credit for the entire course, both the A and B courses must be passed with a C or better.

Associate of Applied Science Degree Requirements

	cience I	College Writing
	Total	Credits for Degree77
	R	ecommended Arts & Sciences Electives
COMM PHIL	221 156	Interpersonal Communication Studies
PSY	105	Logic and Critical Thinking
MATH	180	Introduction to Psychology
MAIH	100	Elements of Carculus I
		Optional Courses#
CP	174L	BASIC Language Programming3
CP	1 75 L	C Language Programming3
CP	176L	Introduction to Microcomputers3
	OI	
CSCI	101	Computer Literacy
	274L	Introduction to the Unix Operating System3
CP	276	ADA Language Programming3
CP	278	Advanced C Language Programming3
CP	279L	Advanced BASIC Language Programming
CP CP	280L 281L	Advanced RPG III/4003
CP	281L	C++ Language Programming
CP	295	Software Quality Assurance
CP	296	Special Topicsvariable Special Problems
CP	297	
CP	299	Cooperative Education
4.4	-//	шенияр этотопиятия Э

GIS	201	Introduction to Geographic Informat	on Systems 3
GIS	202	Geographic Information Systems So	tware
		Applications I	3
GIS	203	Geographic Information Systems So	tware
		Applications II	3

^{*}Optional courses are used to enhance the education of the student. These courses may be taken at any time when prerequisites are met.

Course Descriptions

CP 101A ANSI COBOL

3 credit hours

(Prerequisite: CP 105 or permission of academic advisor) Elementary structured programming projects directly related to business and accounting applications are designed, coded, debugged and executed. (2 theory + 3 lab hours a week) Supply fee: \$10

CP 101B ANSI COBOL

3 credit hours

(Prerequisite: CP 101A) This course is a continuation of CP 101A. More advanced, structured programming projects are designed, coded, debugged and executed. (2 theory + 3 lab hours a week)

CP 101L ANSI COBOL

6 credit hours

(Prerequisite: CP 105) 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. (4 theory + 6 lab hours a week) Supply fee: \$10

CP 103 Mathematics for Computer Programmers 4 credit hours (*Prerequisite: TECH 101*) Algebra fundamentals are covered in this course along with selected applications in business and management math. BASIC language programming is used to program some of the applications. (4 theory + 1 lab hours a week)

CP 104 Data Processing Accounting I 4 credit hours (Prerequisite: TECH 101) Students are introduced to accounting theory, practice and terms, and their relation to business computer programming. (4 theory + 1 lab hours a week)

CP 105 Fundamentals of Computer Programming 6 credit hours (Prerequisite: RDG 099 or equivalent) This course includes computer vocabulary, operating system concepts, structured programming techniques, programming logic and control using BASIC. (4 theory + 6 lab hours a week) Supply fee: \$10

CP 111A Advanced ANSI COBOL

3 credit hours

(Prerequisite: CP 101L) This course continues the development of structured programming skills developed in CP 101L with emphasis on indexed file processing. (2 theory + 3 lab hours a week) Supply fee: \$10

CP 111B Advanced ANSI COBOL

3 credit hours

(Prerequisite: CP 111A) This course continues the development of structured programming skills developed in CP 111A with emphasis on file update and subprogram concepts. (2 theory + 3 lab hours a week)

CP 111L Advanced ANSI COBOL

6 credit hours

(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. (4 theory + 6 lab hours a week) Supply fee: \$10

CP 115 Internal Storage and File Structure

3 credit hours

(Prerequisite: CP 103; corequisite: CP 101L) Students study several common number systems, internal storage interpretation, control statements, utilities and file structures such as indexed files, linked lists, stacks and queues. (2 theory + 3 lab hours a week)

CP 116 Business Systems Analysis

3 credit hours

(Prerequisite: CP 104) 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. (2 theory + 3 lab hours a week)

CP 174L BASIC Language Programming 3 credit hours

(For non-Business Computer Programming 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. (2 theory + 3 lab hours a week) Supply fee: \$10

CP 175L C Language Programming

3 credit hours

(For non-Business Computer Programming students; prerequisite: a programming language) This course is an introduction to C programming language using microcomputers. (2 theory + 3 lab hours a week) Supply fee: \$10

CP 176L Introduction to Microcomputers

3 credit hours

Instruction is provided in computer vocabulary and students are introduced to MS-DOS, WordPerfect, Lotus 1-2-3 and DBase III. (2 theory + 3 lab hours a week) Supply fee: \$10

CP 201L Interactive Programming Techniques 3 credit hours

(Prerequisites: CP 111L, CP 115) Students 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. (2 theory + 3 lab hours a week)

Assembler Language Programming CP 202L

6 credit hours (Prerequisites: CP 105, CP 115) Techniques necessary to write Assembler language

programs are taught on a mainframe IBM. (4 theory + 6 lab bours a week)

CP 213 Database Programming and Concepts

3 credit hours

(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. Microcomputers are used. (2 theory + 3 lab hours a week) Supply fee: \$10

CP 214L Report Program Generator III/400

3 credit hours

(Prerequisites: CP 105, CP 103) Students are introduced to the RPG III/400 programming language used in business organizations. Students become familiar with the basic coding parameters and code a variety of business functions. 12 theory + 3 lab hours a week)

CP 216L Microcomputer Operating Systems

3 credit hours

(Prerequisite: CP 202L) This course covers topics designed to increase understanding of the use of microcomputers. It includes the study of operating systems and macro assembler programming. (2 theory + 3 lab hours a week) Supply fee: \$10

CP 272L C Language Programming

3 credit hours

(Prerequisite: CP 105, CP 101L or permission of academic advisor) This course is an introduction to C language using microcomputers. Students are assumed to know principles of structured computer program planning and programming. (2 theory + 3 lab hours a week) Supply fee; \$10

CP 274L Introduction to the Unix Operating System 3 credit hours (Prerequisite: CP 115 or permission of the academic advisor) This course covers basic commands, mail, inter-terminal communication, the file system, redirected I/O, pipes and shell programming. (2 theory + 3 lab hours a week) Supply fee: \$10

CP 276 ADA Language Programming

3 credit hours

(Prerequisite: CP 111L or permission of the academic advisor or work experience as a computer programmer) This is an introductory course in ADA language programming. (2 theory + 3 lab hours a week) Supply fee: \$10

CP 278 Advanced C Language Programming

3 credit hours

(Prerequisite: CP 272L or permission of the academic advisor) A continuation of CP 272L, this class assumes considerable programming experience. Students write programs working with data structures such as stacks, linked lists, binary search trees and selfbalancing trees. (2 theory + 3 lab hours a week) Supply fee: \$10

CP 279L Advanced BASIC Language Programming 3 credit hours (*Prerequisite: CP 105*) This course emphasizes interactive programming, menu selection, search and retrieval routines and binary functions. (2 theory + 3 lab hours a week) Supply fee: \$10

CP 280L Advanced RPG III/400 3 credit hours (Prerequisite: CP 214L) This course is a continuation of CP 214L with emphasis on file processing and interactive techniques. (2 theory + 3 lab hours a week) Supply fee: \$10

CP 281L C++ Language Programming 3 credit hours (Prerequisite: CP 272 or permission of the academic advisor) This advanced course covers the programming principles of the computer language C++. (2 theory + 3 lab hours a week) Supply fee: \$10

CP 282 Software Quality Assurance 3 credit hours (Prerequisite: CP 111L) Software testing methods are introduced. The students test an actual commercial piece of software and produce a software test plan along with documented test results. Deming's methods of quality systems are also covered. (2 theory + 3 lab hours a week)

CP 283 Introduction to Computer Networks 3 credit hours (Prerequisite: CP 176L or permission of the academic advisor) This course covers hardware, software and the concepts used in various networking schemes including token ring, Novell, Starlan and others. (2 theory + 3 lab hours a week)

CP 295 Special Topics variable credit (Prerequisite: programming experience) The topics depend on the requests from the community; offerings depend on the available software, hardware and instructors.

CP 296 Special Problems 3 credit hours (Prerequisite: enrolled only in Business Computer Programming courses numbered 200 or higher 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 297 Cooperative Education 3 credit hours (Prerequisite: permission of academic advisor) In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate training program. The position is a paid position.

CP 299 Internship 3 credit hours (Prerequisite: permission of academic advisor) In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate training program. The position is not paid.

GIS 201 Geographic Information Systems

3 credit hours

(Prerequisite: MATH 123, CP 176L, GEOG 101, ARDR 180) This course introduces the concepts of Geographical Information Systems including applications, components, mapping, topology and data capture.

GIS 202 Geographic Information Systems Software 3 credit hours with Application I

(Prerequisite: GIS 201) This course introduces the concepts of Geographic Information Systems with computer applications. Actual projects are developed using the computer and related hardware. (2 theory + 3 lab hours a week)

GIS 203 Geographic Information Systems Software 3 credit hours with Application II

(Prerequisite: GIS 202, programming language or permission of academic advisor) This is a project course with the students developing individual projects. (1 theory + 5 lab hours a week)

TECH 101 Mathematics for Technologies 4 credit hours

(Prerequisite: MATH 099 or equivalent) Basic concepts of mathematics including introductory algebra, ratio and proportion, unit conversions, logarithms, scientific notation and calculator usage are covered as a preparation for Technologies applied mathematics courses.

DESIGN DRAFTING ENGINEERING TECHNOLOGY

Associate of Applied Science Degree Main Campus

Design Drafting Engineering Technology is a complex field for persons with a strong interest in electronics and/or mechanical design. The program offers 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 T-VI chapter of the Society of Manufacturing Engineers (SME) and attend local SME seminars.

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.

It is strongly recommended that all beginning students meet with the department counselor to plan an individual course of study. Optional courses and courses numbered 200 or above may not be offered every term and are subject to cancellation before classes start due to insufficient enrollment. Entry into a course without the necessary prerequisites may be allowed with the permission of the academic advisor.

The Design Drafting Engineering Technology associate degree program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET).

Design Drafting Engineering Technology Program

		Cr	edit Hours
DDET	100	Introduction to Engineering Technology	1
DDET	102L	Manufacturing Methods	3
DDET	105L	Basic Machine Tool	2
DDET	106L	Basic CADD	3
DDET	111L	Mechanical Detailing	3
DDET		Structured Computer Programming	
DDET	115L	Intermediate CADD	3
DDET	201L	Descriptive Geometry	3
		Machine Design	
DDET	211L	Electromechanical Drafting	3

DDI	ET	212	Applied Engineering Mechanics	3
DD	ET	214L	Materials Science	4
DDI		215L	Technical Computer Applications Subtotal	3
			Subtotal	38
			l	
			Option I	
Electronic	Drafti	ing and	Design emphasis: All required course	s plus the following:
DD	ET	116L	Basic Electronic Drafting	3
DD1	ĒΤ	202L	Applied Electronic Drafting	3
DD	ET	208L	Electronics Drafting with CADD	3
			Subtotal	9
			Option II	
Tool Desig	յո emp	hasis:	All required courses plus the following	<u>}</u> :
DD1	ET	206L	Jig and Fixture Design	4
			Production Tooling Design	
DD	ET	2 16L	Dimensional Metrology	4
			Subtotal	
				}
			Option III	
An associa	ite of a	pplied	science degree may be earned without	declaring an option. This
			nation of courses from Options I and	
nine credit	hours	. Prere	quisites and corequisites must be satis	fi c d.
			Descript Auto & Saint and Garage	_
			Required Arts & Sciences Course	l l
ENG	G	101	College Writing	3
ENG	G	119	Technical Communications	3
Hun	nanitie	es/Soci	al Science Elective	•
MA	TH	121	College Algebra	3
		or		
MA		150	Advanced Algebra	
MA		162	Calculus I	4
3.54		or		
MA		180	Elements of Calculus	
MA		123	Trigonometry	
PHY			3L General Physics I/Lab	
PHY			4L Physics II/Lab	4
/WIII		OF 121/12	II. Canaral Chamister: III ah	4
CHI	CIVI	121/12	1L General Chemistry I/Lab Subtotal	
			Total Credits for Degree	71–77

Optional Courses#

DDET	104L	Introduction to Technical Drafting	4
DDET	280	Introduction to Quality Assurance	3
DDET	281	Statistical Controls	3
DDET	282	Computer Applications for Quality Assurance	3
DDET	283	Coordinate Measurement Machines	3
DDET	284	Geometric Dimensioning and Tolerancing	3
DDET	285	ASQC Certification Preparation	3
DDET	291	Special Projects in CADD	3
DDET	296	Special Problems	3
DDET	297	Cooperative Education	3
DDET	299	Internship	3
WELD	170	Welding Skills Improvement	3

^{*}Optional courses are used to enhance the education of the student. These courses may be taken at any time when prerequisites are met.

Course Descriptions

DDET 100 Introduction to Engineering Technology 1 credit hour This is a required course for all Design Drafting Engineering students and should be completed in the first term. This is an exploratory course to expose students to the field of engineering technology. Major topics to be covered include study skills, library skills, curriculum and career expectations and college survival skills.

DDET 102L Manufacturing Methods

(Pre- or 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. Properties of materials as affected by various manufacturing processes are introduced. (3 theory + 1 lab hours a week)

3 credit hours

DDET 104L Introduction to Technical Drafting 4 credit hours (Prerequisite: MATH 120 or ACT math score of 26 or equivalent) This is an introduction to fundamental drafting techniques including care and use of drafting equipment, lettering, sketching, linework, scaling and geometric construction. (3 theory + 3 lab hours a week)

DDET 105L Basic Machine Tools 2 credit hours

This course familiarizes students with the functional world of manufacturing and industry. Subjects include 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. (1 theory + 3 lab hours a week)

DDET 106L Basic CADD

3 credit hours

(Corequisite: DDET 104L or permission of academic advisor) 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 hard-copy output. (2 theory + 3 lab hours a week) Supply fee: \$15

DDET 111L Mechanical Detailing

3 credit hours

(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. (2 theory + 3 lap hours a week)

DDET 114L Structured Computer Programming

3 credit hours

(Prerequisite: MATH 120) This is a course in beginning computer programming using engineering applications. (2 theory + 3 lab hours a week) Supply fee: \$15

DDET 115L Intermediate CADD

3 credit hours

(Prerequisite: DDET 106L; corequisite: DDET 111L) The student continues use of CADD software in an applied situation. Advanced drawings include in sertions, layering, auto-dimensioning and constructing library files. (2 theory + 3 lab hours a week) Supply fee: \$15

DDET 116L Basic Electronic Drafting

3 credit hours

(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. Basic electronics theory and mathematics applications are included. (2 theory + 3 lab hours a week)

DDET 201L Descriptive Geometry

3 credit hours

(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 are covered. (2 theory + 3 lab hours a week)

DDET 202L Applied Electronic Drafting

3 credit hours

(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. (2 theory + 3 lab hours a week)

DDET 205L Machine Design Layout

4 credit hours

(Prerequisites: DDET 105L, DDET 111L, DDET 115L; 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 are introduced. Layout formats, part searches and material specifications are made for each design. (3 theory + 3 lab hours a week)

DDET 206L Jig and Fixture Design

4 credit hours

(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 are covered. Time evaluation and accuracy are included; time and motion considerations and datum planes are taught. (3 theory + 3 lab hours a week)

DDET 207L Production Tooling Design

4 credit hours

(Prerequisite: DDET 206L) Students design tools for metal forming operations via power presses and brakes. Topics include the design of male and female hard dies, steel rule dies and urethane tooling for metal blanking, and forming and assembly operations. (3 theory + 3 lab hours a week)

DDET 208L Electronic Drafting with CADD

3 credit hours

(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 including multilayering. (2 theory + 3 lab hours a week)

DDET 211L Electromechanical Drafting

3 credit hours

(Prerequisite: DDET 205L) This course involves the study, experimentation, design and drafting of electromechanical devices and systems. Principal components of hydraulic, pneumatic drive systems and control devices are covered in a hands-on laboratory. A major design project is required. (1 theory + 5 lab hours a week)

DDET 212 Applied Engineering Mechanics

3 credit hours

(Prerequisites: MATH 123, DDET 201L) 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.

DDET 214L Materials Science

4 credit hours

(Prerequisite: DDET 201L or MATH 123 and ENG 119) 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. (3 theory + 3 lab hours a week)

DDET 215L Technical Computer Applications

3 credit hours

(Prerequisite: DDET 115L) Students use the computer to solve engineering and related problems. (2 theory + 3 lab hours a week)

DDET 216L Dimensional Metrology

4 credit hours

(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 make direct and indirect measurements to 50 millionths of an inch. Measurements concentrate on linear and angular units. Students are introduced to equipment used in electrical, decibel and PPM measurements. Lab work includes SPC and CMM practicums. (3 theory + 3 lab hours a week)

DDET 280 Introduction to Quality Assurance

3 credit hours

(Prerequisite: permission of academic advisor) This course examines the philosophies of Deming, Juran and Taguchi as they apply to quality in the workplace. Total Quality Management (TQM), self-directed teams and teamwork also are studied.

DDET 281 Statistical Controls

3 credit hours

(Prerequisite: any college algebra course) Students learn to use hardware and software as they apply to quality assurance. Students study design of experiments, sampling techniques, SPC, control chart application and development and process reliability.

DDET 282 Computer Applications for Quality Assurance 3 credit hours (Prerequisite: DDET 114L or any programming course) Students write computer programs to solve statistical problems. Also used in the course are various statistical and graphic software packages. (2 theory + 3 lab hours a week)

DDET 283 Coordinate Measurement Machines 3 credit hours (Prerequisite: DDET 216L or permission of academic advisor) This is an introduction course in the theory and operation of CMM equipment. Geometric dimensioning and tolerancing are applied to CMM inspection.

DDET 284 Geometric Dimensioning and Tolerancing 3 credit hours (Prerequisite: DDET 111L or training in ANSI-Y14.5) This course covers the design and use of gauges, fixtures and tools for inspection using GD&T specifications to meet ANSI-Y14.5 standards.

DDET 285 ASQC Certification Preparation 3 credit hours (Prerequisite: must meet ASQC certification requirements) This course prepares the student for the ASQC certification examination.

DDET 291 Special Projects in CADD

3 credit hours

This course involves project work in electromechanical drafting using advanced CADD concepts.

DDET 296 Special Problems

3 credit hours

(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 Education

3 credit hours

(Prerequisite: permission of the academic advisor) In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate training program. The position the student holds is a paid position.

DDET 299 Internship

3 credit hours

(Prerequisite: permission of the academic advisor) In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate training program. The position is not paid.

ELECTRONICS ENGINEERING TECHNOLOGY

Associate of 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 skills necessary for employment in a broad occupational area at levels between the electronics technician and the electrical engineer.

T-VI 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 should have high standards of excellence.

It is strongly recommended that all beginning students meet with the department counselor to plan an individual course of study. Technical elective courses and courses numbered 200 or above may not be offered every term and are subject to cancellation before classes start due to insufficient enrollment.

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 indicating an equivalent course 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.

The Electronics Engineering Technology associate degree program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET).

Electronics Engineering Technology Course Offerings by Term

EET	107L	109L	113L	117L	119L	207L	208L	209L	218L	219L
Fall	X	X				X	х	X	X	X
Winter	. X	X	X	X	X		1		X	X
Summ	er		X	X	X	X	х	X		

Electronics Engineering Technology Program

			Credit Hours	
EET	107L	Graphics and Analytical Methods	3	
EET	109L	Circuit Analysis I		
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	Microprocessor Interfacing		
EET	219L	Electronic Systems		
Technica	l Electiv		•	
		Subtotal	42	
			1	
		Required Arts & Sciences Courses		
CHEM	111/11	2L Introduction to Chemistry/Lab	4	
	or		\	
CHEM	121/12	1L General Chemistry/Lab	4	
ENG	101	College Writing	3	
ENG	119	Technical Communications		
Humanities/Social Science Elective				
MATH	121	College Algebra	3	
	or		•	
MATH	150	Advanced Algebra	4	
MATH	123	Trigonometry	2	
		•		

MATH	162	Calculus I4		
	or			
MATH	180	Elements of Calculus I3		
PHYS	151/153L Physics I/Lab4			
	or			
PHYS	160/16	63L General Physics I/Lab5		
		Subtotal25–28		
		Total Credits for Degree67–70		
		Technical Electives		
EET	296			
EET EET	296 297	Special Problems3		
	·			
EET	297	Special Problems		
EET EET	297 299	Special Problems		
EET EET PC CP	297 299 201 175L	Special Problems		

Course Descriptions

EET 107L Graphics and Analytical Methods 3 credit hours

which is required with consent of the academic advisor.

(Corequisite: MATH 150 or MATH 121) Mechanical and electronic drafting methods, including schematic preparation, printed circuit layout, chassis definition and wiring, are studied. Lab time is devoted to the development of skills and techniques required to prepare drawings. In addition, students gain experience in word processing, spreadsheet preparation, graphics, data base preparation and CAD. (2 theory + 3 lab hours a week) Supply fee: \$15

EET 109L Circuit Analysis I

5 credit hours

(Corequisites: ENG 101, EET 107L, MATH 150 or MATH 121) Passive DC circuits are 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 is presented along with concepts of energy, power and efficiency. Computers are used for spread-sheet preparation, graphics and word processing. (3 theory + 5 lab hours a week)

EET 113L Structured Computer Programming 3 credit hours

This is a course in beginning computer programming using engineering applications. (2 theory + 2 lab hours a week) Supply fee: \$15

EET 117L Digital Electronics I

3 credit hours

(Prerequisite: EET 109L) Combinational logic and integrated circuits are analyzed and designed using Boolean algebra, Karnaugh maps and logic diagrams. Number systems, binary codes and code conversions are studied along with flip flops, multivibrators and

circuit applications. Lab work emphasizes wiring and trouble shooting skill development while confirming circuit design objectives. (3 theory + 1 lab hours a week)

EET 119L Circuit Analysis II

5 credit hours

(Prerequisite: EET 109L; corequisites: ENG 119, MATH 123, MATH 162 or MATH 180) Passive AC circuits with dependent and independent sources are studied along with network theorems, phasor analysis, AC measurements, power factor analysis/correction, sweep generation usage and Fourier series. Computers are used for spreadsheet preparation, graphics, word processing and CAD. (3 theory + 5 lab hours a week)

EET 207L Digital Electronics II

3 credit hours

(Prerequisite: EET 117L) Logic circuit decoders, encoders, multiplexers, counters and registers are studied along with ADCs, DACs, RAM, ROM and applications. Microprocessor structure, timing/control, ALU operation, interface circuits and machine language programming are introduced. (3 theory + 1 lab hours a week)

EET 208L Microprocessors

4 credit hours

(Prerequisite: EET 113L; corequisite: EET 207L) Microprocessors and microcomputers are studied in depth with emphasis on machine and assembly language programming. Interrupts and DOS entry points are introduced. (3 theory + 3 lab hours a week)

EET 209L Electronic Devices

5 credit hours

(Pre- or corequisite: EET 119L) Diodes, bipolar transistors, FETs and circuits including rectifiers, zener diode regulators, clippers, clampers and amplifiers are studied. Transistor modeling and circuit analysis/design are stressed along with computer use for circuit analysis, spreadsheet preparation, graphics and word processing (3 theory + 5 lab hours a week)

EET 218L Microprocessor Interfacing

3 credit hours

(Prerequisites: EET 208L, EET 209L) I/O devices including printers, terminals and proto board circuits are interfaced to a microcomputer. Each student makes an oral presentation and prepares documentation describing system operation and organization along with block diagrams, schematics and structured software. (2 theory + 2 lab hours a week)

EET 219L Electronic Systems

5 credit hours

(Prerequisite: EET 209L; corequisite: EET 218L) Electronic system schematics are studied along with frequency considerations, decibel usage, differential and operational amplifiers, power supplies, thyristors, PLLs, oscillators and feedback concepts. Each student prepares a technical manual for a computer-controlled system. Video monitor basics and introductory transmission line theory are presented. Computers are used for instrument control and data logging. (3 theory + 5 lab hours a week)

EET 296 Special Problems

3 credit hours

(Prerequisite: 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 computer aided techniques appropriate to the problem. An oral presentation may be required.

EET 297 Cooperative Education

3 credit hours

(Prerequisite: permission of the academic advisor) In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate training program. The position the student holds is a paid position.

EET 299 Internship

3 credit hours

(Prerequisite: permission of the academic advisor) In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate training program. The position is not paid.

ELECTRONICS TECHNOLOGY

Associate of 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 with electro-mechanical and computer applications. To receive a certificate in Electronics Technology, the student must complete the occupational core program and a concentration in one of four areas: Digital Computer Networking, Laser Electro-Optics, Process Control or Consumer Electronics/Communication, plus additional certificate requirements. An associate of applied science degree in electronics technology will be awarded upon completion of the occupational core program, a concentration in one of the above four areas and the Arts & Sciences component.

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 systems. Such systems include communications equipment, computers, electronic instruments and electro-mechanical equipment.

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

Students entering Electronics Technology courses must meet the prerequisites of TECH 101 (Mathematics for Technologies) and reading at a minimum of eighth-grade level. CP 176L or equivalent is also required before taking 200-level courses. If a

student takes MATH 099 or TECH 101, it is recommended that he or she also take the electronics course from the Developmental Studies Department, CP 176L and an English course before taking courses within the major.

A grade of C or better in each electronics course is required for a degree or certificate. It is strongly recommended that all beginning students meet with the department counselor to plan an individual course of study. Optional courses and courses numbered 200 or above may not be offered every term and are subject to cancellation before classes start due to insufficient enrollment. Entry into a course without the prerequisite may be allowed with the permission of the academic advisor.

Electronics Technology Program

Certificate and Degree Core Requirements

			Credit Hours
+ELEC	103A	Electronics Fundamentals	4
	and		
†ELEC	103B	Electronics Fundamentals	4
	or		
ELEC	103L	Electronics Fundamentals	8
ELEC	104	Technical Mathematics	L
ELEC	105L	Digital Circuits	4
ELEC	11 1L	Introduction to Photonics	4
+ELEC	· 114A	Semiconductor Devices	3
	and		}
*ELEC	114B	Semiconductor Devices	4
	or		
ELEC	114 L	Semiconductor Devices	
+ELEC	118A	Electromechanical Devices	3
	and		t
+ELEC	118B	Electromechanical Devices	
	OF		
ELEC	118L	Electromechanical Devices	
*ELEC	203A	Introduction to Microprocessors	
	and		1
*ELEC	203B	Introduction to Microprocessors	3
	or		1
ELEC	203L	Introduction to Microprocessors	6
ELEC	205L	Analog Circuits Troubleshooting Techniques	6
ELEC	214 L		
		Subtotal	49

^{*}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.

Special Concentration Options for Certificate or Degree (One Option Required)

CEC CEC ELEC ELEC ELEC	201 202 216 217 218	Consumer Electronics/Communication RF/Modulation
		Digital Computer Networking
CEC	201	RF/Modulation
DIG	211	System Fabrication3
DIG	212	Electronic System Applications6
DIG	215	Advanced Digital Processes6
		Laser Electro-Optics
LEOT	205L	Introduction to Laser Systems4
LEOT	206	Optics6
LEOT	217L	Advanced Laser Systems with Applications6
PC	212L	Vacuum Systems
		Process Control
PC	201	Electromechanical Systems
PC	202	Process Control6
C	211	Power RF2
PC	212L	Vacuum Systems2
PC	213L	Control Circuits with Applications6
	or	
SMT	201	Semiconductor Manufacturing Techniques I3
SMT	and 211	Semiconductor Manufacturing Techniques II3
		Additional Certificate Requirements
ВА	111 or	Communications (7 ¹ / ₂ weeks)2–3
ENG	101	College Writing
BA	131	Human Relations (7 ¹ /2 weeks)2-3
DC3/	0I 105	Town direction to Devot along
PSY	105	Introduction to Psychology
		Total Credits for Certificate71-74

Additional Degree Requirements

ENG	119		3
CHEM	111/11	2L Introduction to Chemistry/Lab	4
	or	1	1
CHEM	121/12	1L General Chemistry/Lab	4
Humaniti	ies/Soci	al Science Elective	3
MATH	162	Calculus I	4
	or		
MATH	180	Elements of Calculus	3
PHYS	151/15	3L Physics I/Lab	4
	or		
PHYS	160	General Physics	4
		Total Credits for Degree	84_86
		Total Credits for Degree	1
		Optional Courses#	
CP	175L	C Language Programming	3
CP	274L	Introduction to the Unix Operating	System3
DDET	105L	Basic Machine Tool	
ELEC	204L	Introduction to Computer Programs	rting3
ELEC	276L	Soldering Techniques (71/2 weeks).	
ELEC	278	Modern Technological Advances	
ELEC	279	Electronic Refresher	3
ELEC	280	Introduction to Quality Control	3
ELEC	282	Pulse Power	
ELEC	296	Special Problems	
ELEC	297	Cooperative Education	
ELEC	299	Internship	
FS	203	Hazardous Materials	

[&]quot;Optional courses are used to enhance the education of the student. These courses may be taken at any time when prerequisites are met.

Course Descriptions

CEC 201 RF/Modulation 3 credit hours

(Corequisite: ELEC 205L) This course is an introduction to radio frequency communication theory, circuits and problems. Topics include electromagnetic interference, analog modulation/demodulation techniques, transmission lines, and antennas. (2 theory + 3 lab hours a week)

CEC 202 Telecommunications

3 credit hours

(Prerequisite: ELEC 205L) This course provides an overview of basic telecommunications techniques. Topics include digital modulation/demodulation, microwave theory,

waveguides, satellite systems, signal sampling, the telephone system, modems and associated protocols. (2 theory + 3 lab hours a week)

DIG 211 System Fabrication

3 credit hours

(Prerequisite: ELEC 203L) Students study microcomputer architecture from a systems approach. They assemble and troubleshoot their own microcontroller, modem and Ethernet interface. (2 theory + 3 lab hours a week) Supply fee: \$30

DIG 212 Electronic System Applications

6 credit hours

(Prerequisite: ELEC 205L) This course covers analog methods, signal conditioning, noise reduction and filtering techniques. Transducer theory, application, limitations and interfacing methods are presented. (4 theory + 2 lab hours a week)

DIG 215L Advanced Digital Processes

6 credit hours

(Prerequisite: ELEC 203L) This is a systems approach to PC architecture, custom configuration and I/O. Students configure, construct, maintain and troubleshoot networks in Unix and MS-DOS environments. The students use the network for data acquisition, remote I/O and PLC programming. (4 theory + 6 lab hours a week)

ELEC 103A Electronics Fundamentals

4 credit hours

(Recommended corequisite: ELEC 104 or strong mathematics 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. (3 theory + 3 lab hours a week) Supply fee: \$15

ELEC 103B Electronics Fundamentals

4 credit hours

(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 trouble-shooting AC circuits with the use of multimeters, oscilloscopes and function generators. (3 theory + 3 lab hours a week)

ELEC 103L Electronics Fundamentals

8 credit hours

(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 the use of oscilloscopes, function generators and multimeters in laboratory exercises and in constructing circuits from schematic diagrams. (5 theory + 10 lab hours a week) Supply fee: \$15

ELEC 104 Technical Mathematics

5 credit hours

(Prerequisite: TECH 101) This course covers algebra and trigonometry and their application to various technologies.

ELEC 105L Digital Circuits

4 credit hours

(Recommended corequisite: ELEC 104 or strong mathematics background) The fundamental concepts and applications of digital logic circuits are covered along with number systems and Boolean algebra. The basic logic gates and MSI, LSI circuits are used to develop operational digital circuits. (4 theory + 1 lab hours a week)

ELEC 111L Introduction to Photonics

4 credit hours

(Prerequisites: ELEC 103L) Fiber optics and optical transducer theory are studied including the basics of laser safety and operation. Laboratory experiments in all three areas strengthen concepts. (3 theory + 2 lab hours a week)

ELEC 114A Semiconductor Devices

3 credit hours

(Prerequisite: ELEC 103L) This course covers the basic concepts and applications of simple power supplies and operational amplifiers. In laboratory exercises students analyze and troubleshoot circuits containing basic electronic components, diodes, transformers, filters, regulators and op amps. (2 theory + 3 lab hours a week)

ELEC 114B Semiconductor Devices

4 credit hours

(Prerequisite: ELEC 114A) This course covers basic concepts, biasing techniques and applications of junction field effect transistors and bipolar transistors. In laboratory exercises students analyze and troubleshoot circuits of varying configurations. (3 theory + 3 lab hours a week)

ELEC 114L Semiconductor Devices

7 credit hours

(Prerequisites: ELEC 103L, ELEC 104) This course covers 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. (5 theory + 5 lab hours a week)

ELEC 118A Electromechanical Devices

3 credit hours

(Prerequisite: ELEC 103L, ELEC 104) This course introduces the basic principles and components of hydraulic and pneumatic systems. In laboratory experiments students study component operation and principle application. (2 theory + 3 lab hours a week)

ELEC 118B Electromechanical Devices

3 credit hours

(Prerequisite: ELEC 118A, ELEC 105L) This course covers various control circuits for DC and AC motors and stepper motors. In laboratory experiments students analyze and troubleshoot servosystems for motor speed and positioning control. (2 theory + 3 lab hours a week)

ELEC 118L Electromechanical Devices

6 credit hours

(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. (4 theory + 6 lab hours a week)

ELEC 203A Introduction to Microprocessors

3 credit hours

(Prerequisite: ELEC 118L, CP 176L) This course covers the organization of a micro-computer using the 8088 CPU, memory and I/O devices. Programs are written in Assembler language and in a higher level language to drive the PC's serial I/O, parallel printer port and disk drives. (2 theory + 3 lab hours a week)

ELEC 203B Introduction to Microprocessors 3 credit hours

(Prerequisite: ELEC 203A) The students build individual buffered interfaces that connect with the PC's I/O backplane for their custom I/O applications. (2 theory + 3 lab hours a week)

ELEC 203L Introduction to Microprocessors 6 credit hours

(Prerequisite: ELEC 118L, CP 176L) 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. (4 theory + 6 lab hours a week)

ELEC 204L Introduction to Computer Programming 3 credit hours (Prerequisite: CP 176) The student is introduced to program using a high-level computer programming language. (2 theory + 3 lab hours a week) Supply fee: \$15

ELEC 205L Analog Circuits

6 credit hours

(Prerequisite: ELEC 114L, ELEC 118L) This course presents the circuitry necessary for a measurement and control system through operational amplifier circuits, active filters, comparators, modulation and demodulation, voltage regulation, A-D convertors and D-A convertors and discrete transistors circuits. (4 theory + 6 lab hours a week)

ELEC 214L Troubleshooting Techniques

3 credit hours

(Prerequisite: ELEC 205L or equivalent) In this course students apply troubleshooting techniques to a complete electronic system. Emphasis is on systematic analysis to locate problems. (2 theory + 3 lab hours a week)

ELEC 216 Consumer Electronics

6 credit hours

(Corequisite: ELEC 205L or permission of academic advisor) This course is a study of televisions, video camcorders and video recording methods and equipment with an emphasis on alignment, troubleshooting and repair. (4 theory + 6 lab hours a week)

ELEC 217 Computer Repair

3 credit hours

(Prerequisite: CP 176L and ELEC 114L or permission of academic advisor) This course covers basic aspects of computer repair, troubleshooting techniques with and without software, modifications and replacement. It emphasizes microcomputers and related hardware. (2 theory + 3 lab hours a week) Supply fee: \$15

ELEC 218 Computer Networking

3 credit hours

(Prerequisite: ELEC 203L, CP 176L) This course includes a study of encoding schemes and protocols involved in networking microcomputers. Students are exposed to various networking schemes but concentrate on Ethernet. Lab consists of constructing an Ethernet LAN, writing drivers in a high-level computer language and studying data transfers with diagnostic equipment. (2 theory + 3 lab hours a week)

ELEC 276L Soldering Techniques (71/2 weeks)

2 credit hours

Students use a modern repair center to learn high-reliability soldering and desoldering techniques. Non-destructive printed circuit board repairs and component replacement techniques also are used. (1 theory + 4 lab hours a week) Supply fee: \$15

ELEC 278 Modern Technological Advances

3 credit hours

Various topics on the forefront of today's technology are explored. Subjects include superconductivity, cryogenics, fiber optics applications, microelectronics, photonics, material interactions, holography, non-destructive testing, optical computing and chaos. Concepts include self-directed work teams and statistical process control.

ELEC 279 Electronics Refresher

3 credit hours

(Prerequisite: graduate of an electronics program or equivalent) This is a review of electronics, including basics, semiconductors, op-amps, digital electronics and microprocessors.

ELEC 280 Introduction to Quality Control

3 credit hours

This is an introduction to the concepts and practices currently being used in industry to insure quality.

ELEC 282 Pulsed Power

3 credit hours

(Prerequisite: ELEC 114L or permission of advisor) The generation, transmission and measurement of high-voltage, pulsed power systems are studied

ELEC 296 Special Problems

3 credit hours

(Corequisites: ELEC 202L, ELEC 203L and permission of academic advisor) The student is given a problem to investigate and solve. The student then designs the solution using a combination of techniques.

ELEC 297 Cooperative Education

3 credit hours

(Prerequisite: permission of the academic advisor) In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate training program. The position held by the student is a paid position.

ELEC 299 Internship

3 credit hours

(Prerequisite: permission of the academic advisor) In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate training program. The position held by the student is not a paid position.

LEOT 205L Introduction to Laser Systems

4 credit hours

(Prerequisite: ELEC 111L) The theory and operation of solid-state and gas lasers are studied. Continuous wave and pulsed systems are discussed. Laboratory exercises provide hands-on operation of various types of lasers. (4 theory + 1 lab hours a week)

LEOT 206 Optics

6 credit hours

(Prerequisite: ELEC 111L) Lenses and optical systems are studied from the standpoints of geometric and wave optics. Laboratory experiments are performed. (4 theory + 6 lab hours a week)

LEOT 217L Advanced Laser Systems with Applications 6 credit hours (Prerequisite: LEOT 205L) The applications of laser systems to industry are covered. Students write a technical paper on their area of interest. Calibration techniques, interferometery and Q-switching are examples of laboratory exercises performed. (4 theory + 6 lab hours a week)

PC 201 Electromechanical Systems

3 credit hours

(Prerequisites: ELEC 114L, ELEC 118L) This course uses electromechanical systems donated by local industries to expose students to equipment schematics, maintenance procedures and troubleshooting techniques. Students practice preventive and corrective maintenance procedures. (2 theory + 3 lab hours a week)

PC 202 Process Control

6 credit hours

(Prerequisites: ELEC 203L, ELEC 205L) This course covers the fundamentals of process control, PLCs, microcontrollers and sensor technology. Also included are projects involving serial digital communication, PALs, interrupts, force sensors, photonic sensors and temperature sensors. (4 theory + 6 lab hours a week) Supply fee: \$20

PC 211 Power RF (7¹/₂ weeks)

2 credit hours

(Prerequisite: ELEC 114L) This course is a study of RF energy and its applications in the manufacturing industries. Topics include plasma physics, RF applications, safety, RF generators, transmission lines and RF interference. (2 theory + 3 lab hours a week)

PC 212L Vacuum Systems (7¹/₂ weeks)

2 credit hours

(Prerequisite: ELEC 118L) This is a study of vacuum technology and vacuum systems. Topics include gas laws and properties, operation and applications of vacuum pumps, gauges and valves and systems leak detection. (2 theory + 3 lab hours a week)

PC 213L Control Circuits with Applications

6 credit hours

(Prerequisites: ELEC 203L, ELEC 205L) Topics include robotics, high level applications programming and transducer/computer interfacing projects. The PUMA industrial robot with VAL II control language, robot safety, a three wheel intelligent robot, and the Rhino robot are used. A systems project is designed and constructed by the student. (4 theory + 6 lab hours a week) Supply fee: \$30

SMT 201 Semiconductor Manufacturing Technology I 3 credit hours (Recommended prerequisite: CHEM 111/112L or CHEM 121/121L) Students study several processes, materials and equipment used in semiconductor manufacturing. The areas of study are wafer preparation, contamination control, or idation, diffusion, and thin films.

SMT 211 Semiconductor Manufacturing Technology II 3 credit hours (Prerequisite: SMT 201) Students continue to explore processes, materials and equipment used in semiconductor manufacturing. The areas of study are ion implantation, photolithography and etch.

TECH 101 Mathematics for Technologies 4 credit hours (Prerequisite: MATH 099 or equivalent) Basic concepts of mathematics including introductory algebra, ratio and proportion, unit conversions, logarithms, scientific notation and calculator usage are covered as a preparation for Technologies applied mathematics courses.

MANUFACTURING SPECIALIST

Certificate Program Main Campus

The Manufacturing Specialist Program prepares students for entry-level positions in the manufacturing and production industry by teaching the philosophy, knowledge and skills required. This program also prepares persons needing to upgrade their present skills for better job opportunities.

The Manufacturing Specialist Program is designed as an open-entry, open-exit program that requires approximately two terms of self-paced, directed instruction. Laboratory hours are arranged to provide flexible scheduling for employed and unemployed students.

This eight-credit program is self-paced with the assistance of a qualified instructor. The program consists of 20 modules, each with criteria for successful completion. The curriculum is divided into three parts: general skills, mechanical skills and electronic skills.

Upon completion of this program, the graduate will have the skills necessary for electronic and mechanical assembly, problem solving and preventive maintenance procedures. In addition, the graduate will be able to inspect work for quality and to work safely in an effort to prevent damage to self and product.

For successful completion of this program, a demonstrated 80% competency or B is required for each module. Students demonstrating a competency of 98% on any module will receive a grade of A on the module. Letter grades will be given on the proficiency certificate issued upon completion of the defined program for the student by the Technologies Department. Students will register for this program using the grading system of CR/NC. In order to graduate from the program, the student must complete all 20 modules and complete the application for graduation.

This program requires an average of 400 hours for completion. Any student requiring more than 400 hours will be evaluated for progress at 350 hours. To complete the program within the two-term maximum, the student is required to work on the modules in and out of class. At the end of each term, the student will be given a grade of PR to indicate progress and will be required to re-register for the course a second time.

Students must demonstrate a math skill equivalent to or exceeding MATH 099 offered in the Department of Developmental Studies as a prerequisite for the program. If a student takes MATH 099, it is recommended that he or she also take the Developmental Studies electronics course.

Students pay a one-time \$25 supply fee.

Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits.

Manufacturing Specialist Program

8 credit hours

(Prerequisite: MATH 099 or equivalent) This is a self-paced laboratory course covering each topic listed below. (2 theory + 18 lab hours a week) Supply fee: \$25

Manufacturing Specialist Skills Modules

General Skills Industrial Safety Hazardous Materials Quality Assurance Computer Literacy Problem Solving

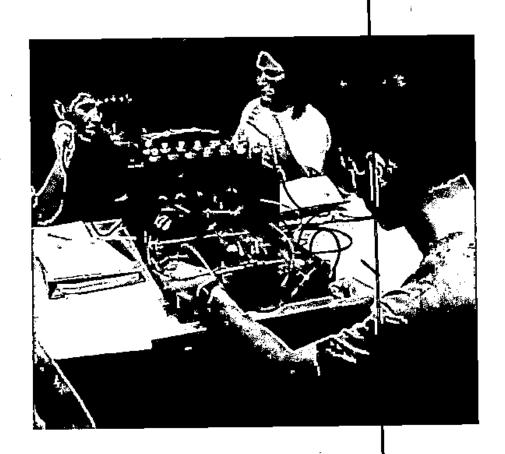
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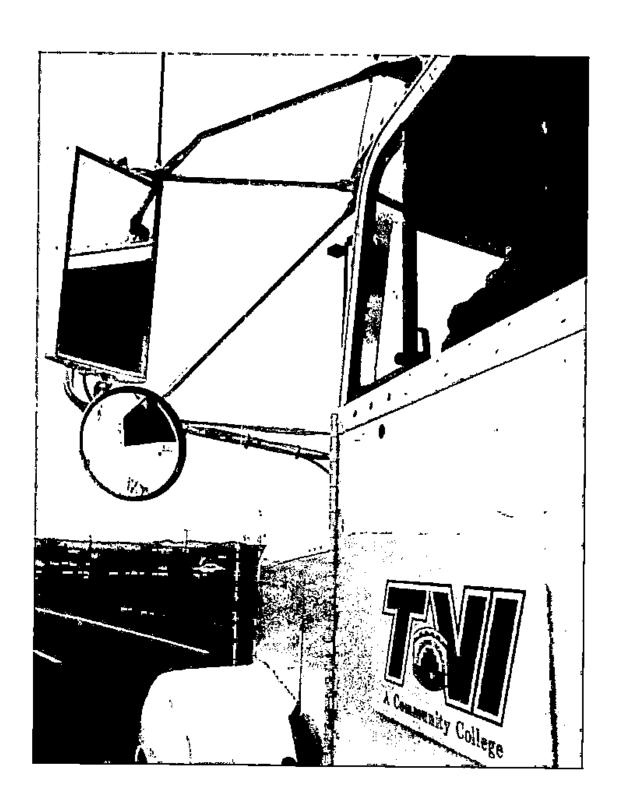
MSP 101L

Mechanical Skills Hand and Power Tools Mechanical Components Torque Tap & Die Measurement Devices Blueprint Reading Fluid Systems Components Mechanical Project

Electronic Skills

Electronic Components and
Basic Electronic Theory
Basic Electricity
ESD Hardware Handling
Soldering Fabrication and
Inspection
Cable and Harness
Assembly
Wire Wrap
Electronic Project





Trades & Service Occupations

The Trades & Service Occupations Department prepares individuals for a variety of jobs in such fields as building trades, culinary arts, automotive repair, mechanical trades and public safety. The department offers certificates and degrees that prepare individuals for entry-level positions, for job advancement and for skill upgrading. Training includes classroom and hands-on training in technical, industrial and service occupations. Most classes meet on the Main Campus in classrooms and indoor and outdoor lab spaces.

Students are encouraged to participate in VICA (Vocational Industrial Clubs of America). VICA activities and programs are an integral part of the curriculum.

Cooperative education allows students who have acquired most of the skills and attitudes needed to succeed in an entry-level job to work for pay. A written agreement with specific objectives is signed by the student, T-VI and the employer. The cooperative education option may not qualify students for financial aid.

Students must provide their own personal protective equipment (hard hat and safety glasses or goggles) and lab clothes which are appropriate and comply with Trades & Service Occupations Department and/or Occupational Safety and Health Act (OSHA) standards. Hard hats must meet ANSI Standard Z89.1-1969. Safety glasses or goggles must meet ANSI Standard Z87.1-1979. Students are trained to OSHA safety standards for their respective area. Any students who habitually endanger themselves or others may be suspended from T-VI.

Tool fees may be waived if students have tools that meet program requirements. Waiver approval must be obtained from a department official.

Most Trades & Service Occupations programs require that students be in good physical condition and be free of allergies or health conditions that could endanger themselves or others. A valid driver's license and drug screening are required by most employers.

All occupational courses must be passed with a minimum grade of C to qualify for graduation.

APPRENTICESHIP PROGRAMS

Note: Students enrolled in these programs may not qualify for financial aid or Veterans Administration benefits.

COMMERCIAL CARPENTRY APPRENTICESHIP

Main Campus

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

The program provides related classroom instruction.

There is a T-VI registration fee each term. Students must purchase textbooks and instructional materials through the local ABC chapter.

CCAP 198 Commercial Carpentry Apprenticeship 40 credit hours (Prerequisite: current full-time employment in the carpentry industry or department approval) This course consists of 600 hours of related classroom instruction covering 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.

CULINARY APPRENTICESHIP

Main Campus

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

The three-year program stresses safety, sanitation and work ethics. Classroom instruction results in certified cook skill levels. Beginning students are admitted each term as space permits.

There is a T-VI registration fee each term. Students must purchase a textbook and instructional materials through the American Culinary Federation Rio Grande Valley Chapter.

CUAP 198 Culinary Apprenticeship

36 credit hours

(Prerequisite: current full-time employment in the food service industry or department approval) This course includes 400 hours of theory taught at T-VI. Theory covers culinary history, food decorating, food management and front-of-the-house techniques. A

comprehensive written and practical final exam is administered in conjunction with the American Culinary Federation.

ELECTRICAL TRADES APPRENTICESHIP

Main Campus

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

The program provides related classroom instruction.

There is a T-VI registration fee each term. Students must purchase books and instructional materials through the IEC office.

ETAP 198 Electrical Trades Apprenticeship

40 credit hours

(Prerequisite: current full-time employment in the electrical rades industry or department approval) This course consists of 600 hours of related classroom instruction covering safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor controls.

FIRE SPRINKLER APPRENTICESHIP

Main Campus

The Fire Sprinkler Apprenticeship is offered for persons currently employed in the fire sprinkler field. The program provides related classroom instruction. Beginning students are admitted each term as space permits.

There is a T-VI registration fee each term. Students must purchase books and instructional materials through the New Mexico chapter of the American Fire Sprinkler Association.

FSAP 198 Fire Sprinkler Apprenticeship

40 credit hours

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(Prerequisite: current full-time employment in the fire sprinkler or related industry or department approval) This course consists of 600 hours of classroom instruction, including sprinkler drawings, NFPA codes and standards, hydraulic calculations, wet/dry/pre-action/deluge systems applications, hazard classification in spections and design.

PLUMBING APPRENTICESHIP

Main Campus

The Plumbing Apprenticeship, 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 T-VI registration fee each term. Students must purchase textbooks and instructional materials through the local ABC chapter.

PLAP 198 Plumbing Apprenticeship

40 credit hours

(Prerequisite: current full-time employment in the plumbing industry) This course consists of 600 hours of classroom instruction covering safety, shop and trade math, plumbing processes, blueprint reading and mechanical code (plumbing) interpretation.

SHEET METAL APPRENTICESHIP

Main Campus

The Sheet Metal Apprenticeship, 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 program provides related classroom instruction.

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

SMAP 198 Sheet Metal Apprenticeship

40 credit hours

(Prerequisite: current full-time employment in the sheet metal industry or department approval) This course consists of 600 hours of related classroom instruction. 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.

ELECTIVE COURSES

At least 15 students must sign up and instructional space and budget must be available before an elective course can be offered. As a result, elective courses may be canceled because of budget or 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. Descriptions for most elective courses are included in their respective programs.

		Credit Hours
ACHR	171L	Basic Refrigeration Maintenance3
ACHR	172L	Basic Air Conditioning, Heating and Refrigeration 3
ACHR	173L	Commercial Refrigeration3
AUTC	170	Commercial Refrigeration
AUTC	172	Air Care Inspector 1
AUTC	173	Air Care Mechanic
#BA	256	Air Care Mechanic 2 Skills
*BT	173L	Introduction to Remodeling3
*BT	174L	Basic Remodeling3
*BT	175L	Intermediate Remodeling3
*BT	176L	Advanced Remodeling3
*BT	177L	Metal Framing3
CARP	170	Carpentry Fundamentals and Cabinethaking3
CARP	171	Construction Trades Blueprint/Math3
CJ	170	Physical Fitness I I
CJ	171	Physical Fitness II1
CMPR	170	Commercial Printing Skills Improvement: Basic 3
CMPR	171	Commercial Printing Skills Improvement:
		Desktop Publishing on the Mac3
ELTR	170	Electrical Wiring Circuitry2
ELTR	171L	Conduit Hand Bending Fundamentals1
ELTR	172L	Pole Climbing1
ELTR	173	Industrial Motor Control Circuitry 2
'ELTR	174L	Industrial PC Motor Control3
ELTR	175	Fiber Optical Cable Installation2
ELTR	176	Electrical Journeyman Preparation3
FSMG	170L	Computers in Food Service
MATT	171	Precision Measurement3
MATT	173	Machine Tool Technology Skills Improvement 3
MATT	174	Advanced Machine Tool Technology
		Skills Improvement3
PLMB	170	Mechanical Trades Math 1
PLMB	171	Journeyman Preparation3
PLMB	173L	Orbital Automated Welding Systems4
PLMB	174L	Polyvinlediene Fluoride (PVDF) Welding Systems4

SCSE	170L	Small Engine Skills Improvement I	3
SCSE	171L	Small Engine Skills Improvement II	3
TRDR	170	Commercial Driver's License	2
TRDR	171	Material Handling	2
TRDR	172	Material Packaging	2
VICA	174	Introduction to Professional Development	. 1
VICA	175	Leadership	1
VICA	176	Career Planning	. 1
VICA	177	Employment Skills	1
VICA	178	Civic Responsibility	1
VICA	179	Total Quality Management	
WELD	170	Welding Skills Improvement	
WELD	171	Advanced Welding Skills Improvement	

^{*}Business Occupations course

Course Descriptions

BT 173L Introduction to Remodeling

3 credit hours

This course provides instruction of the code and permit process involved with building remodel. Personal safety and OSHA regulations are stressed. The technology to analyze existing conditions and information related to basic structural, electrical, and plumbing repairs is provided. (I theory + 5 lab hours a week)

BT 174L Basic Remodeling

3 credit hours

(Prerequisite: BT 173L or department approval) Instruction in job site safety, OSHA regulations, design and construction techniques for remodeling and additions to existing building is provided. Preliminary drawings, estimation, scheduling and inspections are emphasized. (1 theory + 5 lab hours a week)

BT 175L Intermediate Remodeling

3 credit hours

(Prerequisite: BT 174L or department approval) OSHA safety guidelines are outlined for job safety. Computer programs to aid the design and building process are introduced. Engineering principles and construction specifications relevant to conventional frame construction are provided. (1 theory + 5 lab hours a week)

BT 176L Advanced Remodeling

3 credit hours

(Prerequisite: BT 175L or department approval) Job safety in compliance with OSHA guidelines is stressed. Sales contracts, subcontracts, business management and project management systems are introduced for the serious remodel contractor. (1 theory + 5 lab hours a week)

^{*}Students must supply personal safety equipment (approximate cost \$100) and hand tools (approximate cost \$200).

BT 177L Metal Framing

3 credit hours

(Prerequisite: CARP 103 or department approval) Commercial and residential construction design, Uniform Building Code requirements and erection of metal buildings are studied and applied. Job-site and tool safety are stressed. (1 theory + 5 lab hours a week)

VICA 174 Introduction to Professional Development 1 credit hour This course is designed to assist students in developing goals and commitments. Skills include personal awareness, goal setting, time management, organization and communication.

VICA 175 Leadership

I credit hour

This course prepares students for committee work by covering agendas, parliamentary procedures and serving on a committee. Students also participate in community service projects and improve communication skills.

VICA 176 Career Planning

1 credit hour

The skills taught include career information, report writing, conducting interviews, communication improvement and interaction with business and industry.

VICA 177 Employment Skills

1 credit hour

The skills taught assist the student in job-seeking: writing resumes, business letters and memos and creating a job portfolio. Communication and interaction with business and industry also are covered. Job retention skills are stressed.

VICA 178 Civic Responsibility

1 credit hour

This course allows students to become involved in various community services as volunteers. Local government and community leaders' roles in the operation of the city are covered. Planning and carrying out a community project are included.

VICA 179 Total Quality Management

1 credit hour

Students gain an understanding of the structure of business and industry and how total quality concepts can improve the workplace.

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 safety, installing mechanical equipment, piping and electrical controls, servicing various air conditioning, heating and refrigeration components, trouble-shooting systems and performing required preventive maintenance.

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

Students must be free of chronic respiratory diseases and allergies to sheet metal fluxes and metals and must have normal color differentiation.

There is an EPA required certification fee for all refrigeration and air conditioning technicians. The certification is required before graduates enter the work force.

Students must pay a tool fee of \$109 before entering ACHR 101L, 102L or 103L; \$85 before entering ACHR 111L, 112L or 113L; and \$85 before entering 201L, 202L, 203L or 204L. Another option is to pay the entire \$279 and receive all of the required tools.

Air Conditioning, Heating and Refrigeration Program

		Credit Hou	irs
ACHR	101	Basic Refrigeration Theory	2
ACHR	101L	Basic Refrigeration Lab	2
ACHR	102	Basic Control Circuitry Theory	2
ACHR	102L	Basic Control Circuitry Lab	2
ACHR	103	Basic Air Conditioning Theory	
ACHR	103L	Basic Air Conditioning Lab	. 2
ACHR	104	Basic Refrigeration Math	
ACHR	111	Intermediate Heating Theory	
ACHR	111L	Intermediate Heating Lab	2
ACHR	112	Intermediate Control Circuitry Theory	
ACHR	112L	Intermediate Control Circuitry Lab	.2
ACHR	113	Intermediate Air Conditioning Theory	.2
ACHR	113L	Intermediate Air Conditioning Lab	. 2
ACHR	114	Math for Systems Design	
VICA	177	Employment Skills	

ACHR	201	Advanced Air Conditioning	
		and Refrigeration Theory	2
ACHR	201L	Advanced Air Conditioning and Re	frigeration Lab 2
ACHR	202	Commercial Air Conditioning	
		and Refrigeration Theory	2
ACHR	202L	Commercial Air Conditioning and I	Refrigeration Lab 2
ACHR	203	Advanced Building Controls Theor	y2
ACHR	203L	Advanced Building Controls Lab	2
ACHR	204L	Advanced Control Circuitry Lab	I
		Total	42

Course Descriptions

ACHR 101 Basic Refrigeration Theory

2 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) This introductory course includes an orientation to the air conditioning, heating and refrigeration field, and covers basic refrigeration theory, refrigerants, types and operating characteristics of basic equipment components and accessoties, safety and basic service procedures for domestic refrigerators, freezers and light commercial refrigeration units.

ACHR 101L Basic Refrigeration Lab

2 credit hours

(Pre- or corequisite: ACHR 101 or department approval) This lab course includes shop safety, OSHA requirements, basic tool use, soldering, brazing, flaring and swaging, use of gauges and other specialized HVAC equipment, as well as basic refrigeration servicing techniques including refrigerant recovery. Applications include domestic refrigerators, freezers and light commercial refrigeration units.

ACHR 102 Basic Control Circuitry Theory

2 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) This course is an introduction to basic electrical theory, covering Ohm's Law and practical applications, functions of common electrical components, basic circuits and electrical controls, instruments and measurements, single phase and three-phase theory, motor theory and electrical codes and safety.

ACHR 102L Basic Control Circuitry Lab

2 credit hours

(Prerequisite: ACHR 102 or department approval) Competercies include circuit analysis, wiring and troubleshooting of common electrical problems in domestic refrigerators, freezers and window and wall air conditioning units, as well as using test equipment and installing and testing motors, relays, switches and other controls. Emphasis is on safety when working with tools and electricity.

ACHR 103 Basic Air Conditioning Theory

2 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) After completing this course, the student will be proficient in measuring and analyzing pressure-temperature-refrigerant relationships and problems in window and wall air conditioning units.

ACHR 103L Basic Air Conditioning Lab

2 credit hours

(Prerequisite: ACHR 103 or department approval). After completing this course, the student will be able to maintain, repair, service and troubleshoot wall and window unit air conditioners, as well as to use a variety of approved refrigerant recovery machines.

ACHR 104 Basic Refrigeration Math

1 credit hour

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) This course reviews basic arithmetic operations, fractions and decimals, and introduces their applications in refrigeration, together with Ohm's Law calculations in series, parallel and combination circuits.

ACHR 111 Intermediate Heating Theory

2 credit hours

(Prerequisite: ACHR 101, 102, 103 or department approval) The theory of gas-fired furnaces is studied. Requirements for ventilation and combustion air and the theory of the installation, maintenance and servicing of heating systems are stressed.

ACHR 111L Intermediate Heating Lab

2 credit hours

(Pre- or corequisite: ACHR 111 or department approval) The safe installation, maintenance and servicing of heating systems are practiced in this lab.

ACHR 112 Intermediate Control Circuitry Theory 2 credit hours

(Prerequisite: ACHR 101, 102, 103 or department approval) Topics include the design, installation and troubleshooting of heating, air conditioning and refrigeration control circuits. Emphasis is on developing and understanding ladder schematics and electrical control devices from various manufacturers.

ACHR 112L Intermediate Control Circuitry Lab 2 credit hours

(Pre- or corequisite: ACHR 111L, 112 or department approval) This lab covers the wiring, servicing and troubleshooting of heating, air conditioning and refrigeration systems. The use of electrical test instruments is emphasized.

ACHR 113 Intermediate Air Conditioning Theory 2 credit hours

(Pre- or corequisite: ACHR 112 or department approval) This course covers the types and components of refrigeration and air conditioning systems, including packaged units, split systems and combination units. Installation, servicing and maintenance topics are studied. Job seeking and retention skills are stressed.

ACHR 113L Intermediate Air Conditioning Lab

2 credit hours

(Pre- or corequisite: ACHR 112L or department approval) The safe maintenance, installation and servicing of air conditioning and refrigeration units are practiced in this lab.

ACHR 114 Math for Systems Design

3 credit hours

(Prerequisite: ACHR 104 or department approval) This course covers calculations required for residential heating and cooling system design, including computer-aided heat load calculation programs and equipment sizing and layout. This course also covers applied math as used in refrigeration systems.

ACHR 171L Basic Refrigeration Maintenance

3 credit hours

The student is introduced to the types and components of refrigerators and air conditioners in this theory/lab course. Evaporative coolers and preventive maintenance are stressed. Troubleshooting skills are developed. (I theory + 5 lab hours a week)

ACHR 172L Basic Air Conditioning, Heating and Refrigeration

3 credit hours

The students are introduced to basic equipment and service techniques in this theory/lab course. Emphasis is on installation and troubleshooting of parallel compressor systems, energy management systems and preventive maintenance programs. (1 theory + 5 lab hours a week)

ACHR 173L Commercial Refrigeration

3 credit hours

The student is introduced to commercial refrigeration and ice machines in this theory/lab course. Preventive maintenance is stressed. Simple servicing and troubleshooting skills are developed. (1 theory + 5 lab hours a week)

ACHR 201 Advanced Air Conditioning and Refrigeration Theory

2 credit hours

(Prerequisite: ACHR 113, 114 or department approval) The theory of installation, maintenance and service of heat pumps, rooftop air conditioners and ice machines is analyzed. Troubleshooting and servicing techniques are stressed.

ACHR 201L Advanced Air Conditioning and Refrigeration Lab

2 credit hours

(Prerequisite: ACHR 113L or department approval) Heat pumps, rooftop air conditioners and ice machines are installed, maintained and serviced. Troubleshooting and servicing are stressed in the lab environment.

ACHR 202 Commercial Air Conditioning and Refrigeration

2 credit hours

(Prerequisite: ACHR 201 or department approval) The theories of installation, maintenance and service of commercial air conditioners along with multi-zone heating/cooling

units are analyzed. Chilled water and hot water systems and computer room air conditioners are introduced.

ACHR 202L Commercial Air Conditioning 2 credit hours and Refrigeration Lab

(Prerequisite: ACHR 201L or department approval) The installation, maintenance and service of commercial air conditioners along with multi-zone heating/cooling units are practiced.

ACHR 203 Advanced Building Controls Theory 2 credit hours (*Pre- or corequisite: ACHR 201 or department approval*) Basic control system components and diagrams are studied. Emphasis is on the installation and calibration of building control systems.

ACHR 203L Advanced Building Controls Lab 2 credit hours (*Pre- or corequisite: ACHR 115L, 203 or department approval*) Control system components and diagrams are analyzed. Emphasis is on the installation and calibration of building control systems.

ACHR 204L Advanced Control Circuitry Lab 1 credit hour (Prerequisite: ACHR 112 or department approval) Advanced electrical installation, maintenance and service of heat pumps, rooftop air conditioners, ice machines are practiced, and safe use of test instruments is stressed.

ACHR 296 Special Topics

1–6 credit hours

(Prerequisite: department approval) This flexible course enables students to pursue studies in specialized areas. This class also may be taken as an independent, guided study or as a refresher course to sharpen skills prior to licensing.

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. Safety procedures, work ethics and correct selection and use of tools and equipment are stressed.

A valid driver's license and a good driving record are required by most employers. Students purchase all textbooks for this program.

Students must be free of chronic respiratory diseases and allergies to solvents. Because of OSHA requirements students may not have facial hair and must be free of

chronic respiratory problems. In addition, a physician's certificate must be presented to T-VI before the start of classes stating that the student is free from any respiratory illness or problem.

Students must pay a tool fee of \$273 before entering any lab course.

Automotive Body Repair Program

			Credit Hours
AUBO	101	Auto Body Theory I	3
#DETC	102	Math/Basic Electricity	3
AUBO	102L	Welding Plastics and Adhesives I	2
AUBO	103L	Metal Prep/Repair and Mechanical S	ystems2
AUBO	104L	Metal Finishing/Body Filling	2
AUBO	105L	Basic Refinishing Systems	2
AUBO	111	Auto Body Theory II	3
AUBO	112L	Welding Plastics and Adhesives II	2
AUBO	113L	Suspension and AlignmentFrame and Unibody Repair	2
AUBO	114L	Frame and Unibody Repair	2
AUBO	11 5 L	Mechanical Systems	1
AUBO	118L	Automotive Glass Lab	11
VICA	177	Employment Skills	
AUBO	201	Auto Body Theory III	3
AUBO	202L	Welding Plastics and Adhesives III	2
AUBO	203L	Advanced Refinishing Systems/Tech	niques3
AUBO	204L	Advanced Restraint/Electrical System	rs1
AUBO	206L	Air Conditioning	1
AUBO	208L	Advanced Frame & Unibody Repair.	2
		Total	39

^{*}Diesel Equipment Technology course

Course Descriptions

AUBO 101 Auto Body Theory I

3 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval; corequisite: DETC 102) This theory course introduces students to all phases of damage analysis and collision damage repair. Basic information is presented on hand and power tools, safety, detailing, metal finishing, refinishing and welding.

AUBO 102L Welding Plastics and Adhesives I

2 credit hours

(Pre- or corequisite: AUBO 101 or department approval) Basic safety and instruction in oxyacetylene welding, gas metal arc welding, plastics identification, welding and adhesive repairs are presented.

AUBO 103L Metal Prep/Repair and Mechanical Systems 2 credit hours (Pre- or corequisite: AUBO 101, DETC 102 or department approval) This lab provides experience in analyzing damage, damage estimates, safety, detailing, panel removal, replacement and adjustment, mechanical system inspection and repair.

AUBO 104L Metal Finishing/Body Filling 2 credit hours (Pre- or corequisite: AUBO 101 or department approval) Minor body dent repair, detailing, surface preparation, damage type, tool use and safety, metal finishing and body filler repair techniques are presented.

AUBO 105L Basic Refinishing Systems 2 credit hours (*Pre- or corequisite: AUBO 101 or department approval*) Students practice paint safety, surface preparation, molding removal, surface cleaning, detailing, stripping, sanding materials and techniques, paint undercoats and applications, and spray gun operations.

AUBO 111 Auto Body Theory II 3 credit hours (Prerequisite: DETC 102, AUBO 101, 102L, 103L, 104L, 105L or department approval) This theory course introduces students to all phases of structural analysis and collision damage repair. Basic information includes damage diagnosis, body measurements, welding, mechanical, glass systems and refinishing systems. Job seeking and retention skills are also stressed.

AUBO 112L Welding Plastics and Adhesives II 2 credit hours (Prerequisite: AUBO 102L, 111 or department approval) This is an intermediate level course that builds on AUBO 102L. Additional practical skills are developed in gas metal acr welding, plastic welding and adhesives use.

AUBO 113L Suspension and Alignment 2 credit hours (Pre- or corequisite: AUBO 111 or department approval) Students gain practical experience in diagnosis and repair of steering components and suspension systems.

AUBO 114L Frame and Unibody Repair 2 credit hours (Pre- or corequisite: AUBO 111 or department approval) An introduction to the proper use of frame and unibody pulling equipment, body measuring systems, pulling techniques, structural panel sectioning and replacement, corrosion protection materials and top coat application.

AUBO 115L Mechanical Systems 2 credit hours (Pre- or corequisite: AUBO 111 or department approval) This lab teaches students to safely remove, inspect and repair mechanical systems.

AUBO 118L Automotive Glass Lab 1 credit hour (Pre- or corequisite: AUBO 111 or department approval) Students learn to remove and replace fixed or rubber gasket windshields and manual and electrical door glass hardware.

AUBO 201 Auto Body Theory III

3 credit hours

(Prerequisite: AUBO 111, 112L, 113, 114L, 115L, 118L or department approval) This course introduces students to advanced repair techniques using industry standards in mig welding, plastics, finishing paint systems, paint application problems, color matching and application, paint finish defects, passenger restraints electrical components and air conditioning systems.

AUBO 202L Welding Plastics and Adhesives III 2 credit hours (Pre-corequisite: AUBO 112L, 201 or department approval) In this lab course more advanced gas metal arc welding techniques and plastic repair are presented.

AUBO 203L Advanced Refinishing Systems/Techniques 3 credit hours (Pre- or corequisite: AUBO 201 or department approval) Procedures for painting spot, panel and complete repairs are practiced. Students also solve paint application problems, including causes and corrections of finish defects. Personal safety equipment, detailing, environmental regulations and customer relations are taught.

AUBO 204L Advanced Restraint/Electrical Systems 1 credit hour (Pre- or corequisite: AUBO 201 or department approval) This lab course covers the inspection and repair of active, passive and air bag restraint systems. Students also learn to diagnose and safely adjust and repair various electrical components.

AUBO 206L Air Conditioning

1 credit hour

(Pre- or corequisite: AUBO 201 or department approval) Instruction is provided in safety, environmental concerns, tools, equipment, servicing and repairing of automotive air conditioning systems.

AUBO 208L Advanced Frame & Unibody Repair 2 credit hours (Pre- or corequisite: AUBO 201 or department approval) Advanced frame, structural, measuring and mechanical system repairs are stressed.

AUBO 296 Special Topics

1-6 credit hours

(Prerequisite: department approval) This course is an in-depth study of problems and advanced techniques in automotive body repair.

AUTOMOTIVE TECHNOLOGY

Certificate Program Main Campus

The Automotive Technology program is designed to equip individuals with the skills needed to diagnose and repair mechanical problems on automobiles and light trucks. Safety procedures and work ethics 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 is accredited by NATEF (National Automotive Technicians Education Foundation Inc.) as a master certified program in all eight specialty areas: automotive transmission/transaxle, brakes, electrical system, engine performance, engine repair, heating and air conditioning, manual drive train and axles, and suspension and alignment.

Students must be free of chronic respiratory diseases and allergies to fuels and solvents. A valid driver's license and a good driving record are required by most employers.

Students must pay a tool fee of \$340 before entering any lab course.

Automotive Technology Program

			Credit Hours
AUTC	101	Braking Systems Theory	1
DETC	102	Math/Basic Electricity	3
AUTC	101L	Braking Systems Lab	2
AUTC	102	Suspension and Alignment Theory	2
AUTC	102L	Suspension and Alignment Lab	2
AUTC	103	Manual Transmission and Axles Theory	2
AUTC	103L	Manual Transmission and Axles Lab	2
AUTC	111	Engine Overhaul Theory	2
AUTC	111L	Engine Overhaul Lab	2
AUTC	112	Auto Transmission and Transaxles Theory.	2
AUTC	112L	Auto Transmission and Transaxles Lab	2
AUTC	113	Transportation Electronics	3
AUTC	114	Heating and Air Conditioning Theory	1
AUTC	114 L	Heating and Air Conditioning Lab	2
VICA	177	Employment Skills	
AUTC	201	Automotive Ignition Systems Theory	2
AUTC	201L	Automotive Ignition Systems Lab	
AUTC	202	Automotive Fuel Systems Theory	

AUTC	202L	Automotive Fuel Systems Lab	 2
		Automotive Computer Systems Theo	
		Automotive Computer Systems Lab.	
		Total	i

^{*}Diesel Equipment Technology course

Course Descriptions

AUTC 101 Braking Systems Theory

1 credit hour

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) This course enables students to identify mechanical, hydraulic, electrical and brake systems and equipment.

AUTC 101L Braking Systems Lab

2 credit hours

(Pre- or corequisite: AUTC 101 or department approval) Students repair, replace and adjust automotive brake systems and components. Personal safety is stressed.

AUTC 102 Suspension and Alignment Theory

2 credit hours

(Pre- or corequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) Students study suspension systems and determine repairs needed. Two and four-wheel alignment methods and procedures are instructed.

AUTC 102L Suspension and Alignment Lab

2 credit hours

(Pre- or corequisite: AUTC 102 or department approval) Stude ats learn to use tools and equipment needed for repairs of suspension systems and perform front-end and fourwheel alignments.

AUTC 103 Manual Transmissions and Axles Theory 2 c

2 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) Students study the design and operation of front and rear drive manual transmissions, differentials and drive lines. Maintenance service procedures and troubleshooting methods are emphasized.

AUTC 103L Manual Transmissions and Axles Lab

2 credit hours

(Pre- or corequisite: AUTC 103 or department approval) Skills required to service, repair or overhaul automotive manual transmissions and clutches on front and rear drive vehicles are developed. Differential assemblies, drive lines and diagnostic procedures used in solving vibration and harshness problems are also addressed. Safety is emphasized.

AUTC 111 Engine Overhaul Theory

2 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) This course presents the theory of engine systems and the use of measuring tools to determine necessary repairs and services. The operation of the internal combustion engine and the basic principles of engine overhald are studied.

AUTC 111L Engine Overhaul Lab

2 credit hours

(Pre- or corequisite: AUTC 111 or department approval) Students acquire skills needed to perform normal engine maintenance, including fluid changes, adjustments and minor repairs. Also included are the correct use of precision measuring tools and the testing, removal, replacement and overhauling of engines.

AUTC 112 Automatic Transmissions and Transaxies Theory

2 credit hours

(Pre- or corequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) This course covers design and operating theory of automotive transmissions and transaxles. Servicing and troubleshooting procedures are covered.

AUTC 112L Automatic Transmissions and Transaxles Lab 2 credit hours (*Pre- or corequisite: AUTC 112 or department approval*) This course provides hands-on experience in servicing, overhaul and troubleshooting of automatic transmissions and transaxles.

AUTC 113 Transportation Electronics

3 credit hours

(Prerequisite: DETC 102 or department approval) Information required to test and replace malfunctioning electronic components is provided. The theory of solid-state devices and basic principles of electronics are included. Bench top experiments are conducted using full wave rectifiers, voltage rectifiers, transistors and other electronic components.

AUTC 114 Heating and Air Conditioning Theory 1 credit hour (Pre- or corequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) This theory course provides instruction in safety, environmental concerns, tools, equipment, operation of parts and servicing and repair of automotive air conditioning systems.

AUTC 114L Heating and Air Conditioning Lab 2 credit hours (Pre- or corequisite: AUTC 114 or department approval) This course is designed to teach safety, servicing and repair of automotive heating and air conditioning systems.

AUTC 170 Transportation Trades Machining 3 credit hours This theory/lab course includes basic machine shop repair practices as they relate to gasoline and diesel engine repairs. Instruction is provided in safety, hand tools, lathe, mill and drill press. (I theory + 5 lab hours a week)

AUTC 172 Air Care Inspector

1 credit hour

This theory/lab course provides the training required for mechanics to become certified air care inspectors for the City of Albuquerque's Vehicle Pollution Management program. The course covers the city and federal regulations governing air pollution and emissions inspections. (.5 theory + 2.5 lab hours a week)

AUTC 173 Air Care Mechanic

2 credit hours

(Prerequisite: 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. (1 theory + 2.5 lab hours a week)

AUTC 201 Automotive Ignition Systems Theory

2 credit hours

(Prerequisite: AUTC 113 or department approval) The focus is on the design, operation and troubleshooting of standard, electronic and distributor-less ignition systems.

AUTC 201L Automotive Ignition Systems Lab

3 credit hours

(Pre- or corequisite: AUTC 201 or department approval) This laboratory course presents the use of diagnostic equipment and troubleshooting techniques for various types of ignition systems.

AUTC 202 Automotive Fuel Systems Theory

2 credit hours

(Pre- or corequisite: AUTC 113 or department approval) This is a theory course covering the design, operation, diagnosis and repair of fuel systems.

AUTC 202L Automotive Fuel Systems Lab

2 credit hours

(Pre- or corequisite: AUTC 202 or department approval) Students diagnose, test and repair fuel systems.

AUTC 203 Automotive Computer Systems Theory

2 credit hours

(Pre- or corequisite: AUTC 113 or department approval) Students analyze the design, operation and repair of various automotive computer systems.

AUTC 203L Automotive Computer Systems Lab

2 credit hours

(Pre- or corequisite: AUTC 203 or department approval) The focus is on troubleshooting, operation and repair of automotive computer systems.

AUTC 296 Special Topics

1-6 credit hours

(Prerequisite: department approval) This course includes an in-depth study of problems and the advanced techniques automotive technicians use in responding to them.

BAKING

Certificate Program Main Campus

This food service specialty prepares students for jobs as bakers in restaurants, bake shops and institutional kitchens. Students learn safety and hands-on skills in a lab furnished with commercial equipment.

Students must be free of chronic allergies. In addition, a physician's certificate must be presented to T-VI before the start of classes stating that the student is free from tuberculosis in a transmissible form.

Students must pay a tool fee of \$122 before entering BKNG 103L, 104L, 105L or 106L; and \$37 before entering BKNG 112L, 113L, 114L, 115L or 116L.

Baking Program

			Credit Hours
BKNG	101	Baking Theory I	2
BKNG	102	Food Service Math	3
BKNG	103L	Breads	
BKNG	104L	Sweet Yeast Goods	
BKNG	105L	Cake Batters	2
BKNG	106L	Pies and Pastries	
VICA	177	Employment Skills	
BKNG'	111	Baking Theory II	
BKNG	112L	Yeast Doughs	2
BKNG	113L	Batters	
BKNG	11 4 L	Pastries and Cookies	
BKNG	115L		
BKNG	116L	Cake Decorating	
		Total	26

Course Descriptions

BKNG 101 Baking Theory I

2 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval; corequisite: BKNG 102) This course introduces students to baking fundamentals through the scratch production of breads, sweet yeast goods and assorted pastries. The course includes ingredient function, storage, sanitation, safety, formulation, and job seeking and retention skills.

BKNG 102 Food Service Math

3 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) Basic arithmetic skills for sales, portioning and pricing of food products are analyzed. Cash register fundamentals are stressed.

BKNG 103L Breads

2 credit hours

(Pre- or corequisite: BKNG 101, 102 or department approval) This course provides basic instruction in fundamentals of mixing and processing ingredients in a variety of pan, Pullman and hearth breads. Rolls and buns are also included with safety related activities highly emphasized. Personal safety is stressed.

BKNG 104L Sweet Yeast Goods

2 credit hours

(Pre- or corequisite: BKNG 101, 102 or department approval) This course covers basic instruction in retail production of donuts, sweet rolls, cinnamon rolls, coffee cake and danish. Sanitation techniques, portion control, safety techniques and costing skills are included.

BKNG 105L Cake Batters

2 credit hours

(Pre- or corequisite: BKNG 101, 102 or department approval) Instruction in the fundamentals of processing ingredients in a variety of cake batters, it ings and fillings is provided. Special emphasis is placed on basic cake decorating skills, ingredient storage, proper formulation, and care and use of bakery equipment.

BKNG 106L Pies and Pastries

2 credit hours

(Pre- or corequisite: BKNG 101, 102 or department approval) This course covers a variety of specialized pastries with emphasis on roll-in doughs and leavening agents. Safety and sanitation are stressed.

BKNG 111 Baking Theory II

3 credit hours

(Prerequisite: BKNG 101, 102, 103L, 104L, 105L, 106L or department approval) This course continues the principles of Baking I with emphasis on baking chemistry and advanced production procedures. More study of international past ies and desserts is provided with advanced decorating techniques. Safety and sanitation are stressed.

BKNG 112L Yeast Doughs

2 credit hours

(Pre- or corequisite: BKNG 111 or department approval) Supervision, safety techniques and advanced production procedures of a variety of breads, sweet doughs and croissants are covered in this course.

BKNG 113L Batters

2 credit hours

(Pre- or corequisite: BKNG 111 or department approval) Advanced production procedures of a variety of international cakes and tortes with emphasis on baking chemistry and safety are promoted.

BKNG 114L Pastries and Cookies

2 credit hours

(Pre- or corequisite: BKNG III or department approval) Advanced production techniques of international pastries, pies and petit fours are presented. The seven different methods of cookie production are emphasized. International roux products are introduced with advanced safety procedures utilized.

BKNG 115L Icings and Fillings

2 credit hours

(Pre- or corequisite: BKNG 111 or department approval) Advanced production techniques of international buttercreams, fondants, ganache and marzipan are presented; safety and sanitation requirements are stressed.

BKNG 116L Cake Decorating

1 credit hour

(Pre- or corequisite: BKNG 111 or department approval) In this course fundamental knowledge of the production of tiered, special occasion and sculpted cakes is stressed.

BKNG 296 Special Topics

1-6 credit hours

(Prerequisite: department approval) This course helps students enrolled in Food Service Management and Quantity Foods pursue specialized needs. The class may be taken as independent or directed study.

CARPENTRY

Certificate Program Main Campus

The Carpentry program provides students with safety training and entry-level job skills to enter the construction industry. Classes meet on- and off-campus and in labs designed for residential and light commercial construction, cabinet-making and remodeling.

The fundamentals of framing and tools of the trade are taught, along with blueprint reading and material analysis. Students are exposed to all phases of the construction of a building including remodel, interior finish carpentry and construction and installation of cabinets.

Students must be free of chronic wood or wood product allergies and be able to lift 50 pounds. Students purchase all textbooks for this program.

Carpentry students must pay a tool fee of \$122 before entering CARP 102L, 103L or 104L; and an additional \$85 before entering CARP 112L, 113L or 114L.

Carpentry Program

			Credit Hours
CARP 1	101	Carpentry Math/Blueprint Reading I	3
CARP 1	102	Foundations Theory	1
CARP 1	102L	Foundations Lab	2
CARP 1	103	Framing Theory	1
CARP 1	103L	Framing Lab	
CARP 1	104	Exteriors Theory	
CARP 1	104L	Exteriors Lab	2
VICA 1	177	Employment Skills	1
CARP I	111	Carpentry Math/Blueprint Reading II	
CARP 1	112	Interior Finish Theory	1
CARP 1	12L	Interior Finish Lab	
CARP 1	113	Cabinet-making and Millwork Theory	} 1
CARP 1	13L	Cabinet-making and Millwork Lab	
CARP 1	114	Carpentry Remodel Theory	
CARP 1	14L	Carpentry Remodel Lab	•
		Total	25

Course Descriptions

CARP 101 Carpentry Math/Blueprint Reading I

3 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) Topics include whole numbers, combining numbers, lumber sizing, scaling, centering and triangle theory. Instruction in the interpretation of elevation drawings, floor plans, symbols, notations, dimensions and structural information is included. Students are introduced to material estimation.

CARP 102 Foundations Theory

1 credit hour

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) This course provides instruction in the safety and use of hand and power tools, site layout and various methods of concrete foundation construction.

CARP 102L Foundations Lab

2 credit hours

(Pre- or corequisite: CARP 101, 102 or department approval) This course provides handson training in the safety and use of hand and power tools. Site layout, footing, stemwall and concrete slab construction are taught.

CARP 103 Framing Theory

1 credit hour

(Prerequisite: CARP 101, 102 or department approval) This course provides instruction in the layout of floor, wall, ceiling and roof structural members. The students read blue-prints and calculate the type of structural materials to be used in accordance with the Uniform Building Code (UBC).

CARP 103L Framing Lab

2 credit hours

(Pre- or corequisite: CARP 103 or department approval) This course meets on- and off-campus on job sites where students cut and assemble the structural material to construct floor, wall, ceiling and roof systems in accordance with the Uniform Building Code (UBC). Safety is stressed.

CARP 104 Exteriors Theory

1 credit hour

(Pre- or corequisite: CARP 101, 102, 103 or department approval) This course provides instruction in the installation of exterior wall and roof finishes, windows and exterior doors in accordance with the Uniform Building Code (UBC).

CARP 104L Exteriors Lab

2 credit hours

(Pre- or corequisite: CARP 104 or department approval) This course provides experience in installing exterior wall and roof finishes, windows and exterior doors in accordance with the Uniform Building Code (UBC).

CARP 111 Carpentry Mathematics/Blueprint Reading II 3 credit hours (Prerequisite: CARP 101, 102, 102L, 103, 103L, 104, 104L or department approval) Blueprint applications for residential homes, multiple family dwellings and commercial buildings are introduced. Instruction also is provided in the use of rules and formulas for material estimating, volume measure, ratio and proportion.

CARP 112 Interior Finish Theory

1 credit hour

(Pre- or corequisite: CARP 111 or department approval) The focus is on the UBC requirements for the installation of various types of thermal insulation and drywall. Methods involved in painting, trimming and finishing interiors are covered. Calculations for quantities of materials are determined.

CARP 112L Interior Finish Lab

2 credit hours

(Pre- or corequisite: CARP 112 or department approval) This course offers hands-on activities in insulation techniques, drywall installation, taping and texture of drywall, painting, trimwork and finishing of the interiors of residential and commercial buildings. Safety is stressed.

CARP 113 Cabinet-making and Millwork Theory 1 credit hour (Pre- or corequisite: CARP 111 or department approval) This course provides instruction in the design, layout and construction of wood cabinets.

CARP 113L Cabinet-making and Millwork Lab 2 credit hours (Pre- or corequisite: CARP 113 or department approval) This course offers hands-on experiences in the safe use of equipment and power tools used in the construction and finish of wooden cabinets.

CARP 114 Carpentry Remodel Theory

1 credit hour

(Pre- or corequisite: CARP 111 or department approval) This course covers the various types of construction found in residential and commercial buildings. Emphasis is placed on the Uniform Building Code requirements for remodeling an existing structure.

CARP 114L Carpentry Remodel Lab

2 credit hours

(Pre- or corequisite: CARP 114 or department approval) This course offers hands-on experiences in the safe use of power equipment and problem solving in remodeling.

CARP 170 Carpentry Fundamentals and Cabinet making 3 credit hours This course introduces the student to the carpentry and cabinet making field. Job, shop and hand/power tool safety is stressed. Students are required to construct and finish a project out of materials and hardware. (1 theory + 5 lab hours a week)

CARP 171 Construction Trades Blueprint/Math

3 credit hours

Instruction is provided in reading and interpreting residential blueprints. Emphasis is on terminology, symbols, notations, scaling, dimensioning and drawing techniques. Construction methods and materials are studied. Calculations for material take-off and estimates are determined for materials.

CARP 296 Special Topics

1-6 credit hours

(Prerequisite: department approval) This course includes an in depth study of methods and advanced techniques.

COMMERCIAL PRINTING

Associate of Applied Science Degree/ Certificate Program Main Campus

This program provides students with safety training and entry-level skills for jobs in the offset printing industry or in-plant print and duplication sheps. Students who also take business and liberal arts courses can earn an associate degree.

The commercial printing lab contains desktop publishing 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.

Students 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.

Commercial Printing students must pay a tool fee of \$37 before entering CMPR 104L, 105L, 108L or 109L.

Commercial Printing Program

Certificate

		Credit Hours			
CMPR	101	Commercial Printing Math I1			
CMPR	102	Offset Theory I3			
CMPR	104L	Pre-press Lab2			
CMPR	105L	Press and Bindery Lab2			
CMPR	108L	Basic Press Work2			
CMPR	109L	Intermediate Press Work2			
VICA	177	Employment Skills 1			
CMPR	111	Commercial Printing Math II 1			
CMPR	112	Commercial Printing Theory II3			
CMPR	113L	Desktop Publishing2			
CMPR	114L	Estimating2			
CMPR	117L	Advanced Pre-press Lab2			
CMPR	118L	Desktop Manipulations Lab2			
¹ CMPR	201L	PostScript Illustration2			
¹ CMPR	202L	Image Manipulation/Painting2			
¹ CMPR	203L	Advanced Document Assembly2			
¹ CMPR	204L	Process Stripping2			
¹ CMPR	205L	Advanced Press Work2			
¹ CMPR	206L	Process Press Work2			
-1 Student	s select	any three of these courses.			
		Total31			
		Additional Degree Requirements			
EPT	213	Occupational Safety3			
CM	132	Construction Graphics3			
^{2}AA	101	Beginning Typing3			
² AA	102	Intermediate Typing3			
Comput	er Elect	ives (any department)6-7			
3ENG	101				
³ ENG	102	Analytic Writing3			
³ ENG	219	Technical Writing3			
³ Commu	nicatio	as Course (oral communications elective)3			
³ Humani	³ Humanities/Social Science Elective3				
³ Math El	lective	3			
		Total 67–68			
² Busine	ss Occu	pations courses			
		es courses \			
	This de delenees courses				

Course Descriptions

CMPR 101 Commercial Printing Math I

1 credit hour

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval; corequisite: CMPR 102) Instruction is offered in math as it applies to the printing trade for measurements, pica/point rulers, proportions, type specking, sizing of camera shots, exposures, ink formulas and paper

CMPR 102 Offset Theory I

3 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval; corequisite: CMPR 101) This course covers the entire process of offset printing. Design theory, layout and paste-up techniques, typesetting, darkroom procedures, offset press and bindery are major areas of discussion.

CMPR 104L Pre-press Lab

2 credit hours

(Pre- or corequisite: CMPR 101, 102, 103L or department approval) This lab covers the next stage in the printing process, that of film assembly and platemaking. Students learn to shoot halftones and lineshots, strip for multiple burn plates, strip two color, the basics of contacting and platemaking. Personal safety is stressed.

CMPR 105L Press and Bindery Lab

2 credit hours

(Pre- or corequisite: CMPR 101, 102, 103L, 104L or department approval) In this lab students learn the procedures for set-up, operation, clean-up and maintenance of offset lithography presses. Students get initial training in custom ink mixing and basic bindery and finishing, including the operation of the folder and the power cutter. Safety is stressed.

CMPR 108L Basic Press Work

2 credit hours

(Pre- or corequisite: CMPR 101, 102, 105L or department approval) Students learn press adjustments, roller pressure adjustments, cylinder pressure (plate to blanket) and packing cylinders. Changing blankets is required. Mechanical types and weights of paper stock that affect offset running ability are also covered.

CMPR 109L Intermediate Press Work

2 credit hours

(Pre- or corequisite: CMPR 107L or department approval) This course simulates working conditions. Time is spent to overcome weaknesses and increase skill level and speed. A final project is taken from design to bindery.

CMPR 111 Commercial Printing Math II

1 credit hour

(Prerequisites: CMPR 101, 102, 104L, 105L, 107L, 108L or department approval) This course provides advanced instruction in math as it applies to the printing trade for measurements, ink and chemical formulas, paper cuts and job pricing

CMPR 112 Commercial Printing Theory II

3 credit hours

(Prerequisites: CMPR 101, 102, 104L, 105L, 107L, 108L or department approval) Training continues in design theory, layout and paste-up, darkroom processes, chokes and spreads, and press operation. Students are exposed to professional desktop publishing hardware and software. Also covered are the requirements for estimating.

CMPR 113L Desktop Publishing

2 credit hours

(Prerequisites: CMRP 101, 102, 104L, 105L, 107L, 108L or department approval) This course covers the use of page layout software, including word processing and the production of simple graphics, tables and charts. Students also are taught to use illustration software.

CMPR 114L Estimating

2 credit hours

(Prerequisites: CMPR 101, 102, 104L, 105L, 107L, 108L or department approval) The basics of estimating costs, labor and overhead for a variety of printing jobs are covered. Students learn how to charge jobs in a simulated business environment using both catalog and computer methods.

CMPR 117L Advanced Pre-press Lab

2 credit hours

(Prerequisites: CMPR 101, 102, 104L, 105L, 107L, 108L or department approval) Students are trained in hairline, multiple burn stripping using chokes and spreads. Students learn to make dupes and composites. Entry-level electronic pre-press and manual traps are also covered.

CMPR 118L Desktop Manipulations Lab

2 credit hours

(Prerequisites: CMPR 101, 102, 104L, 105L, 107L, 108L or department approval) This course introduces students to graphic design. Students practice layout/pasteup techniques using the most widely accepted tools, equipment and materials. Students also acquire basic camera and computer skills.

CMPR 170 Commercial Printing Skills Improvement: 3 credit hours Basic

This theory/lab course is designed for individuals with industry experience who need to update their knowledge. The entire range of offset experience is covered with emphasis on improving quality. (1 theory + 5 lab hours a week)

CMPR 171 Commercial Printing Skills Improvement: 3 credit hours Desktop Publishing on the Mac

(Prerequisite: instructor approval) This theory/lab course is for individuals in industry who need to upgrade their skills. The course provides desktop publishing on the Macintosh computer from the basics to recent upgrades of the most popular page layout and illustration software. (1 theory + 5 lab hours a week)

CMPR 201L PostScript Illustration

2 credit hours

(Prerequisites: CMPR 111, 112, 113L, 114L, 117L, 118L or department approval) Advanced training in designing and producing printable artwork is offered on Aldus FreeHand and Adobe Illustrator. Students learn shortcuts and trapping techniques.

CMPR 202L Image Manipulation/Painting

2 credit hours

(Prerequisites: CMPR 111, 112, 113L, 114L, 117L, 118L or department approval) Students learn to design and produce artwork and separations in Adobe PhotoShop.

CMPR 203L Advanced Document Assembly

2 credit hours

(Prerequisites: CMPR 111, 112, 113L, 114L, 117L, 118L or department approval) This course offers advanced training in designing and producing artwork on page layout software.

CMPR 204L Process Stripping

2 credit hours

(Prerequisites: CMPR 111, 112, 113L, 114L, 117L, 118L or department approval) Students receive advanced training in process film assembly and fixing desktop output problems.

CMPR 205L Advanced Press Work

2 credit hours

(Prerequisites: CMPR 111, 112, 113L, 114L, 117L, 118L or department approval) This course offers advanced training in press work with emphasis on efficiency and quality, including reducing make-ready and wash-up time.

CMPR 206L Process Press Work

2 credit hours

(Prerequisites: CMPR 111, 112, 113L, 114L, 117L, 118L or department approval) Students learn to produce process color on the press, including controlling densities and fit.

CMPR 296 Special Topics

1-6 credit hours

(Prerequisite: department approval) This course includes an in-depth study of problems and the advanced techniques that commercial printing experts use in responding to them.

CONSTRUCTION TECHNOLOGY

Associate of Applied Science Degree Main Campus

The Construction Technology program provides instruction in safety training an technical skills related to the residential and commercial construction industry. The as sociate of applied science degree has construction management, general construction and electrical options. Required courses are designed to develop professionalism, leadership and skills for successful employment.

Construction Technology Program

Option 1: Construction Management

Required Trades & Service Occupations Courses

		Credit Hours
CM	132	Construction Graphics3
CM	171	Construction Materials and Techniques3
CM	201	Commercial Construction Theory2
CM	201L	Commercial Construction Lab
CM	or	3
CM	196	Cooperative Education I
CM	256	Statics for Non-Engineers3
	257	Computer Estimating
CM CM		Construction Management
	258	Construction Applied Math2
CM	259	
CM	263	Construction Equipment and Methods
	or	3
CM	197	Cooperative Education II
CM	278	Mechanical and Electrical Blueprint Reading2
VICA	177	Employment Skills1
EPT	213	Occupational Safety3
		Required Business Occupations Courses
ACCT	101A	Accounting Principles I3
BA	211	Business Law3
		Required Technologies Courses
ARDR	130	Drafting Fundamentals2
ARDR	232	Architecture and Construction Planning3
ARDR	261L	Construction Surveying3

		Required Arts & Sciences Courses	
Commun	ications	s Course (oral communications elective	3
ECON	201	Microeconomics	3
ENG	101	College Writing	3
English (Course ((writing elective)	3
MATH		Intermediate Algebra	
·MATH	121	College Algebra	
Physics I	Elective		
Humanit	ies/Soci	al Science Elective	3
Compute	r Electi	ve (any department)	3–4
		Total	78-28 74.74
		AVEEL MANAGEMENT PROPERTY AND	74-12
		Option 2: General Construction	
	Req	uired Trades & Service Occupations Con	rses
			Credit Hours
CARP	101	Carpentry Math/Blueprint Reading I	3
CARP	102	Foundations Theory	1
CARP	102L	Foundations Lab	2
CARP	103	Framing Theory	1
CARP	103L	Framing Lab	2
CARP	104	Exteriors Theory	I
CARP	104L	Exteriors Lab	
CARP	111	Carpentry Math/Blueprint Reading II	
CARP	112	Interior Finish Theory	
CARP	112L	Interior Finish Lab	
CARP	113	Cabinet-making and Millwork Theory.	
CARP	113L	Cabinet-making and Millwork Lab	•
CARP	114	Carpentry Remodel Theory	
CARP	114L	Carpentry Remodel Lab	
CM	132	Construction Graphics	
CM	17,1	Construction Materials and Techniques	
CM	201	Commercial Construction Theory	
CM	201L	Commercial Construction Lab	
CM	263	Construction Equipments and Methods	
CM	278	Mechanical and Electrical Blueprint Re	
EPT	213	Occupational Safety Employment Skills	
VICA	177	Employment Skills	I
		Required Technologies Courses	<u>_</u>
ARDR	130	Drafting Fundamentals	
ARDR	232	Architecture and Construction Planning	g
ARDR	261L	Construction Surveying	3
Compute	r Electi	ve (any department)	3–4

Required Arts & Sciences Courses

Commu	nication	s Course (oral communications elective)	3				
ENG	101	College Writing	3				
English Course (writing elective)3							
Humanit	Humanities/Social Science Elective3						
Math Ele	Math Elective ————————————————————————————————————						
Physics I	Elective		3				
		Total	.73–74				
			75-77				
		Option 3: Electrical					
	Req	uired Trades & Service Occupations Courses					
			Hours				
ELTR	101	Electrical Theory I					
ELTR	102	Electrical Math I					
ELTR	103L	Electrical DC/AC Lab	3				
ELTR	104L	AC Circuitry, Motors, Generators	3				
ELTR	111	Electrical Algebra					
ELTR	112	Residential Blueprint Reading I	3				
ELTR	113	Electrical Theory II					
ELTR	114L	Residential Wiring Lab					
ELTR	115L	Residential Services	3				
ELTR	201	Electrical Theory III	3				
ELTR '	202	Commercial Blueprint Reading II					
ELTR	203	Electrical Motor Control Theory					
ELTR	204L	Industrial Motor Control Lab					
ELTR	205L	Industrial Power Distribution	3				
ELTR	211	Industrial Electrical Circuitry and Safety	3				
ELTR	212	Programmable Logic Controller Theory	3				
ELTR	213L	PLC Installation and Operation	3				
ELTR	214L	PLC Systems Operation and Troubleshooting					
VICA	177	Employment Skills	1				
Compute	r Electi	ve (any department)	3-4				
		Required Arts & Sciences Courses					
Commun	ications	s Course (oral communications elective)	3				
ENG	101	College Writing	3				
English (Course (writing elective	3				
Humaniti	ies/Soci	al Science Elective	3				
Math Ele	ctive	***************************************	& &				
Physics E							
		Total	76-77 7 h- 79				

Course Descriptions

CM 132 Construction Graphics

3 credit hours

(Prerequisite: ARDR 130 or department approval) Emphasis is on principles and techniques of graphics used in the construction industry. Topics include geometry, multiview projects and visualization with applications in structural and presentation problems.

CM 171 Construction Materials and Techniques

3 credit hours

This course covers plan reading, elementary construction techniques, materials and construction documents. Microcomputers are used for word processing, graphics, spreadsheets and data bases. Assignments include written reports and oral presentations.

CM 201 Commercial Construction Theory

2 credit hours

This course serves as an introduction to commercial drawing sets. Buildings are analyzed for code compliance and cost per square foot. Commercial and residential buildings are contrasted, and the Uniform Building Code is covered.

CM 201L Commercial Construction Lab

3 credit hours

(Corequisite: CM 201 or department approval) Students analyze costs, specifications and codes in order to learn the responsibilities of a construction supervisor. Personal safety is stressed.

CM 256 Statics for Non-Engineers

1 3 credit hours

(Prerequisite: MATH 120 or department approval) Through the use of graphic and algebraic formulas, students are introduced to static forces, equilibrium, moments, stress and stain. Beams and columns in wood, steel and concrete are covered in reference to the Uniform Building Code and institutional manuals.

CM 257 Computer Estimating

3 credit hours

(Prerequisite: CM 201, 201L or department approval) This course includes a survey of contemporary software. Students complete cost estimates on buildings, using the Construction Specifications Institute formatted budgets and take-off echniques.

CM 258 Construction Management

2 credit hours

State-of-the-art scheduling techniques are surveyed, including computer-assisted packages. Students break down a job into its basic tasks and reassemble it in a framework that controls time, work, materials and related activities.

CM 259 Construction Applied Math

2 credit hours

Geometry and trigonometry topics that have construction layout applications are covered.

CM 263 Construction Equipment and Methods 3 credit hours

(Prerequisite: CM 258 or department approval) Large equipment used to move, lift and assemble components of commercial buildings is presented. Earth work, concrete forms and construction are covered, along with steel, wood and masonry methods, productivity, licenses and contract options.

CM 278 Mechanical and Electrical Blueprint Reading 2 credit hours. This course focuses on materials and equipment used in the electrical and mechanical systems of commercial buildings. The associated codes and costs of these systems are introduced.

CRIMINAL JUSTICE

Associate of Applied Science Degree Main Campus

This program provides comprehensive instruction in criminal justice. Students who have already received a certificate from an approved New Mexico criminal justice 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.

Some employers may require a high school diploma or GED, two years of college or bachelor's degree.

Criminal Justice Program

Required Core Courses

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	Credit Hours
101	Criminal Law and Procedure3
102	Juvenile Justice and Procedure3
103	Probation and Parole3
104	Patrol Procedures
or	3
196	Cooperative Education I
106	Police and Pre-sentence Investigation Reports3
109	Introduction to Security Services
or	3
114	Contemporary Enforcement Techniques
111	Traffic Investigation and Enforcement
	102 103 104 or 196 106 109 or

	OL	***************************************	3
CJ	197	Cooperative Education II	i
CJ	112	Criminal Investigation	3
CJ	113	Organized and White Collar Crime	3
CJ	170	Physical Fitness . T.	
VICA	177	Physical Fitness TEmployment Skills	1
Compute	r Electi	ive (any department)	•
	•	Required Arts & Sciences Courses	
ENG	101	College Writing	3
ENG	119	Technical Communications	
Commun	nication	is Course (oral communications (elective)	3
MATH		r higher	
Psycholo		ctive	
SOC	101	Introduction to Sociology	3
SOC	111	Criminal Justice System	3
SOC	211	Social Problems	3
SOC	212	Juvenile Delinquency	3
SOC	214	Sociology of Corrections	3
SOC	215	Criminology	
SOC	216	Ethnic and Minority Groups	3
SOC	280	Social Science Research	3
		Total	
			72-73
		Course Descriptions	,_
CJ 101		Criminal Law and Procedure	3 credit hours
•		riate scores on BOTEL and math placemen	
		This course is a study of the historical deve	
-		statutory criminal law and the procedures w	hich control actions in
the criminal jus	tice sy	stem,	}
CJ 102	J	uvenile Justice and Procedure	3 credit hours
This course cov	ers the	juvenile court and justice system including	g the Children's Code

This and the Rules of Procedure.

Probation and Parole

3 credit hours

This course includes the history, philosophy and legal basis governing investigation and supervision of juvenile offenders and adult violators placed on probation and parole.

CJ 104 **Patrol Procedures**

3 credit hours

This course introduces the basic patrol function and the problems faced by law enforcement officers.

CJ 106 Police and Pre-sentence Investigation Reports 3 credit hours Class is limited to 20 students) The course includes the study and use of police and presentence investigation reports.

CJ 109 Introduction to Security Services 3 credit hours Topics include the history and development of security services, relationships to the legal process, career roles and operational processes in security operations. The course also helps homeowners make living quarters more secure and covers personal defense, report writing, emergency procedures and defensive driving.

CJ 111 Traffic Investigation and Enforcement 3 credit hours (Pre- or corequisite: CJ 101, CJ 104, CJ 106 or department approval) 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 credit hours (Pre- or corequisite: CJ 101, CJ 106 or department approval) Basic criminal investigation is studied from the preliminary investigation to final preparation and presentation in court.

CJ 113 Organized and White Collar Crime 3 credit hours (Pre- or corequisite: CJ 101 or department approval) 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 credit hours (Pre- or corequisite: CJ 101, CJ 104; limited to Criminal Justice majors or department approval) This course voers verbal and manual skills which officers use on a daily basis. Handcuffing, restraint, field notes and testimony are studied.

CJ 170 Physical Fitness I 1 credit hour

(Prerequisite: health history questionnaire signed by a physician documenting student's ability to participate in an exercise program) This course offers a fitness assessment of muscular strength, muscular endurance, cardiorespiratory fitness, flexibility and body composition. Based on the results, the student designs and participates in an exercise program. The course is self paced. (.5 theory + 2.5 lab hours a week)

CJ 171 Physical Fitness II 1 credit hour

(Prerequisite: CJ 170 and health history questionnaire signed by a physician documenting student's ability to participate in an exercise program) This advanced course offers a fitness assessment of muscular strength, muscular endurance, cardiorespiratory fitness, flexibility and body composition. Based on the results, the student designs and participates in an exercise program. The course is self paced. (.5 theory + 2.5 lab hours a week)

CJ 296 Special Topics

1-6 credit hours

(Prerequisite: department approval) This course includes an in-depth study of problems and the advanced techniques that criminal justice experts use in responding to them.

CULINARY ARTS

Associate of Applied Science Degree Main Campus

The Culinary Arts associate of applied science degree provides students in Baking, Food Service Management and Quantity Foods an option to the certificate programs.

The program prepares individuals for entry-level jobs in bakeries, restaurants and commercial kitchens. The program also prepares individuals to become entry-level supervisors or managers. The program emphasizes safety, production sanitation, nutritional food preparation, cashiering, equipment use, human relations, supervision and business practices.

Culinary Arts Program

			Credit Hours
QUFD	101	Quantity Food Theory I	2
QUFD	103L	Buffet Procedures	2
QUFD	104L	Salad and Pantry	2
QUFD	105L	Dinner	l
QUFD	106L	Frv	2
QUFD	111	Quantity Food Theory II	3
QUFD	112L	Dining Room Skills	1
QUFD	113L	Cold Preparation	2
QUFD	114L	Stocks and Sauces—Sous Chef	2
QUFD	115L	Entree (Meat Preparation)	2
QUFD	116L	Entree (Fish Preparation)	2 ·
QUFD	102 or	BKNG 102 Food Service Math	3
BKNG	101	Baking Theory I	2
BKNG	103L	Breads	2
BKNG	104L	Sweet Yeast Goods	2
BKNG	105L	Cake Batters	2
BKNG	106L	Pies and Pastries	2
BKNG	111	Baking Theory II	3
BKNG .	112L	Yeast Doughs	2
BKNG	113L	Batters	2
BKNG	114L	Pastries and Cookies	2

BKNG	115L	Icings and Fillings	2
BKNG	116L	Cake Decorating	
FSMG	101	Operations Management	
FSMG	102	Human Resource Management	3
FSMG	103	Product Management	3
Compute	er Elect	ive (any department)	3–4
		Required Arts & Sciences Courses	
Commun	nication	s Course (oral communications elective	3
ENG	101	College Writing	3
English (Course	(writing elective)	3
Math Ele		***************************************	
Social So	cience/l	Humanities Elective	
		Total	74-75
			74-14

Course descriptions are found under Baking, Food Service Management and Quantity Foods.

DIESEL EQUIPMENT TECHNOLOGY

Certificate Program Main Campus

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

The program meets in labs where students are introduced to safety and a variety of diesel engines, electrical and hydraulic test equipment, 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 present operating principles and troubleshooting techniques.

Students must be free of chronic respiratory diseases and allergies to fuels and solvents. A valid driver's license and a good driving record are required by most employers.

Diesel Equipment Technology students must pay a tool fee of \$158 before entering DETC 103L, 104L or 105L; \$158 before entering DETC 111L, Det. or 105L; and \$122 before entering DETC 201L, 202L or 203L.

Diesel Equipment Technology Program

Demo		_	Credit Hours
,DETC	101	Diesel Drive Train Theory	3
DETC	102	Math/Basic Electricity	3
DETC	103L	Manual Shift Transmissions Lab	3
DETC	104L	Drive Axles, Brakes, Automatic Transmi	sion Lab 3
DETC	105L	Hydraulic Systems	
DETC	111	Diesel Engine Theory	3
DETC	111L	Diesel Engine Overhaul	3
DETC	112 L	Precision Measurement and Component F	lenair Lah 3
#AUTC	113	Transportation Electronics	3
DETC	113L	Engine Tune-up and Testing Lab	
DETC	201	Diesel Electrical Theory	l 1
DETC	201 L	Diesel Electrical Lab	3
DETC	202	Diesel Fuel Injection Theory	1
DETC	202L	Diesel Fuel Injection Lab	3
DETC	203	Transport Refrigeration/Air Conditioning	Theory 1
DETC	203L	Transport Refrigeration/Air Conditioning	ab 3
			<u></u>
		Total	40

[&]quot;Automotive Technology course

Course Descriptions

DETC 101 Diesel Drive Train Theory 3 credit hours (Pre- or corequisite: appropriate scores on BOTEL and math placement test or equiva-

lent or department approval) Emphasis is on safety, disassembly, evaluation, reassembly, adjustment, troubleshooting and testing of drive train components. Lessons are presented on air brake troubleshooting and repair, final drive units, hydraulic system components and circuits.

DETC 102 Math/Basic Electricity

3 credit hours

(Pre- or corequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) Review and application of basic math skills, such as fractions, decimals, percentages, ratios, proportions, areas, volumes, and basic electricity principles and electrical circuits are presented.

DETC 103L Manual Shift Transmissions Lab

·3 credit hours

(Pre- or corequisite: DETC 101 or department approval) Shop safety, disassembly, evaluation, assembly and adjustment of manual shift transmissions used in trucks are included in this course. Also covered are single and twin countershaft transmissions, auxiliary transmissions and transfer gear cases.

Drive Axles, Brakes DETC 104L and Automatic Transmissions Lab

3 credit hours

(Pre- or corequisite: DETC 101 or department approval) Shop safety and disassembly, evaluation, assembly and adjustment of automatic transmissions, drive axles, clutches and other drive train components are presented. Air and hydraulic brake system components are disassembled, evaluated and reassembled.

Hydraulic Systems DETC 105L

2 credit hours

(Pre- or corequisite: DETC 101 or department approval) Shop safety, disassembly, evaluation and assembly of hydraulic pumps, valves, actuators and hydraulic circuits used in the heavy-equipment industry are presented. Hydrostatic transmissions and in-line circuit testers are covered.

Diesel Engine Theory DETC 111

3 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) Emphasis is placed on two- and four-stroke cycle diesel engine operating principles. Operation, troubleshooting and repair procedures are covered for blocks, crankshafts, camshafts, rods, bearings, pistons, cylinder heads, lubrication systems, cooling systems, fuel systems, air induction and exhaust systems. Job seeking and retention skills are stressed.

Diesel Engine Overhaul DETC 111L

3 credit hours

(Pre- or corequisite: DETC 111 or department approval) Engine disassembly, evaluation and reassembly techniques are covered in this course. Engines are assembled to manufacturer's recommended specifications then operated and adjusted on a test stand.

3 credit hours Precision Measurement and Component DETC 112L Repair Lab

(Pre- or corequisite: DETC 102 or department approval) The uses of micrometers and dial indicators are presented. Measurements are done on engines then compared to manufacturer's specifications. Component repair involves disassembly, evaluation and reassembly of units such as blowers, turbochargers, oil pumps, water pumps and fuel transfer pumps.

2 credit hours **Engine Tune-Up and Testing Lab** DETC 113L

(Pre- or corequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) Engine adjustments and tune-ups are performed on major brands of engines. Troubleshooting skills are practiced on engines in operating condition.

Diesel Electrical Theory DETC 201

1 credit hour

(Prerequisite: AUTC 113 or department approval) Students study shop safety and diagnosis and troubleshooting procedures of electrical systems and diesel components.

DETC 201L Diesel Electrical Lah

3 credit hours

(Pre- or corequisite: DETC 201 or department approval) Students practice shop safety and diagnostic and troubleshooting procedures of electrical components and diesel systems.

DETC 202 Diesel Fuel Injection Theory

1 credit hour

(Pre- or corequisite: DETC 201 or department approval) Students study safety, diagnosis, troubleshooting and repair of fuel injection systems and diesel components.

DETC 202L Diesel Fuel Injection Lab

3 credit hours

(Pre- or corequisite: DETC 201, 202 or department approval) Safety and diagnosis, troubleshooting and repair procedures on fuel injection systems and diesel components are practiced.

DETC 203 Transport Refrigeration/Air Conditioning Theory

1 credit hour

(Pre- or corequisite: DETC 201 or department approval) Students study shop safety and diagnostic, troubleshooting and repair procedures of transport refr geration and air conditioning systems.

DETC 203L Transport Refrigeration/Air Conditioning Lab

3 credit hours

(Pre- or corequisite: DETC 201, 203 or department approval) Students practice shop safety while learning diagnostic, troubleshooting and repair procedures on transport refrigeration and air conditioning systems.

DETC 296 Special Topics

1-6 credit hours

(Prerequisite: department approval) This course includes an in-depth study of problems and the advanced techniques diesel technicians use in responding to them.

ELECTRICAL TRADES

Certificate Program Main Campus

The program provides the student with safety and entry-level skills for employment in the construction industry and electrical maintenance and related electrical trades.

On- and off-campus projects enable students to gain on-the-job experience in electrical installation under the supervision of instructors. In-depth study of the National Electrical Code and local wiring codes is included. Conduit bending, motor controls and the installation and use of programmable controllers in motor control are taught in the advanced terms.

Student must have normal color differentiation and be able to lift 50 pounds.

Electrical Trades students must pay a tool fee of \$122 before entering ELTR 103L or 104L; \$104 before entering ELTR 114L or 115L; \$61 before entering ELTR 204L or 205L; and \$61 before entering ELTR 213L or 214L.

Electrical Trades Program

		Credit Hou	rs
'BA	131	Human Relations	.2
	or	101	_
*PSY	105	Introduction to Psychology (1) (2) (2) (2) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	.3
#BA	111	Communications	²
OL			•
*ENG	101	College Writing	
ELTR	101	Electrical Theory I	3
ELTR	102	Electrical Math I	3
ELTR	103L	Electrical DC/AC Lab	3
ELTR	104L	AC Circuitry, Motors, Generators	3
ELTR	111	Electrical Algebra	3
ELTR	112	Residential Blueprint Reading I	3
ELTR	113	Electrical Theory II	3
ELTR	114L	Residential Wiring Lab	3
ELTR	115L	Residential Services	3
ELTR	201	Electrical Theory III	3
ELTR	202	Commercial Blueprint Reading II	3
ELTR	203	Electrical Motor Control Theory	3
ELTR	204L	Industrial Motor Control Lab	3
ELTR	205L	Industrial Power Distribution	3
ELTR	211	Industrial Electrical Circuitry and Safety	3
ELTR	212	Programmable Logic Controller Theory	3
ELTR	213L		3

 213	PLC Systems Operation and Troublesho Occupational Safety Employment Skills	1 3
	Total	

^{*}Business Occupations course

Course Descriptions

ELTR 101 Electrical Theory I

3 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval; corequisite: ELTR 102) This 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.

ELTR 102 Electrical Math I

3 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement est or equivalent or department approval) The student reviews basic arithmetic functions and is introduced to electrical formulas which include Ohm's and Kirchhoff's laws. Calculations of material and circuit load requirements, rules for series, parallel and combination circuits and mechanical work and power are covered.

ELTR 103L Electrical DC/AC Lab

3 credit hours

(Pre- or corequisite: ELTR 101, 102 or department approval) This course covers the basic fundamentals of electricity. Emphasis is placed on safety. Topics include electrical circuitry, meters, power sources, conductors, insulators, reactive circuits and application of the National Electrical Code.

ELTR 104L AC Circuitry, Motors, Generators

3 credit hours

(Pre- or corequisite: ELTR 101, 102 or department approval) This 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 three-way switches and application of the National Electrical Code. Safety is stressed.

ELTR 111 Electrical Algebra

3 credit hours

(Prerequisite: ELTR 101, 102, 103L, 104L or 105L or department approval) This course advances the 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 in the electrical trade.

^{*}Arts & Sciences course

Residential Blueprint Reading I **ELTR 112**

3 credit hours

(Pre- or corequisite: ELTR 111 or department approval) 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.

Electrical Theory II **ELTR 113**

3 credit hours

(Pre- or corequisite: ELTR 111, 112 or department approval) This course covers the application of the National Electrical Code, local codes and regulations for installation of branch circuits, services, feeders, temporary services and associated materials and equipment for residential and light commercial applications.

Residential Wiring Lab ELTR 114L

3 credit hours

(Pre- or corequisite: ELTR 111, 112, 113 or department approval) This course covers safety, tools, materials, single pole switches, receptacles, overcurrent protection, threeand four-way switches, pilot switches, door chimes, dryer and range receptacles and swamp coolers, as well as NEC requirements for residential and light commercial applications.

Residential Services ELTR 115L

3 credit hours

(Pre- or corequisite: ELTR 111, 112, 113 or department approval) This course allows students to study and build residential services, install circuit panels, cut and thread rigid conduit, hand bend and install EMT conduit in adherence to the National Electrical Code.

Electrical Wiring Circuitry ELTR 170

2 credit hours

This course provides instruction in the interpretation, design and wiring of common switch, receptacle and related circuitry in accordance with the NEC and state and local codes.

1 credit hour **Conduit Hand Bending Fundamentals** ELTR 171L

This theory/lab course provides instruction in the computation and placement of conduit hand benders to bend and install conduit systems in accordance with the NEC and state and local codes. (.5 theory + 2.5 lab hours a week)

Pole Climbing ELTR 172L

1 credit hour

Instruction is provided in safety, use of equipment, climbing and maneuvering techniques and use of ladders on poles and spanlines.

2 credit hours **Industrial Motor Control Circuitry ELTR 173**

This theory course provides instruction in the design, interpretation, drawing and installation of electromechanical relay type motor controls in accordance with the National Electrical Code.

ELTR 174L Industrial PC Motor Control

3 credit hours

This theory/lab course provides instruction in the operation of programmable logic controllers, interpretation of PLC logic diagrams and the installation of programming of PLC systems in accordance with the National Electrical Code. (1 heory + 5 lab hours a week)

ELTR 175 Fiber Optical Cable Installation

2 credit hours

This theory course introduces the installation of fiber optical cable in various systems. Emphasis is placed on proper installation and termination.

ELTR 176 Electrical Journeyman Preparation

3 credit hours

Instruction is provided in the use and application of the National Electrical Code Handbook. Students learn the responsibilities and duties encountered by journeymen on typical job sites.

ELTR 201 Electrical Theory III

3 credit hours

(Prerequisite: ELTR 111, 112, 113, 114L or 115L or department approval) This course introduces students to the commercial/industrial aspects of electrical safety, tools, materials, power distribution systems, services, hazardous locations and intrusion/fire alarm systems in accordance with the National Electrical Code.

ELTR 202 Commercial Blueprint Reading II

3 credit hours

(Pre- or corequisite: ELTR 112, 201 or department approval) Advanced instruction in reading blueprints and specifications is provided. The blueprints include transformers, feeders, distribution panels, sub-feeder panels, lighting circuits, motors and controllers, signal systems and power requirements.

ELTR 203 Electrical Motor Control Theory

3 credit hours

(Pre- or corequisite: ELTR 201, 202 or department approval) This course introduces students to the symbology and method of interpreting and drawing electromechanical motor control circuitry. NEMA standards are studied in detail.

ELTR 204L **Industrial Motor Control Lab**

3 credit hours

(Pre- or corequisite: ELTR 201, 202 or department approval) Top cs include 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.

ELTR 205L **Industrial Power Distribution**

3 credit hours

(Pre- or corequisite: ELTR 201, 202 or department approval) This lab covers safety, use of mechanical and hydraulic benders, use of power threaders, knock-dut punches, hammer drills and powder actuated fasteners, drop-in anchors, cable installation, cutting, splicing and termination, wire pulling and the application of the NEC

ELTR 211 Industrial Electrical Circuitry and Safety 3 credit hours (Prerequisite: ELTR 201, 202, 203, 204L, 205L or 206L or department approval) This course provides instruction in safety principles and standards used in the electrical field. Techniques used for electrical troubleshooting are emphasized.

ELTR 212 Programmable Logic Controller Theory 3 credit hours (Pre- or corequisite: ELTR 211 or department approval) Students are introduced to programmable logic motor controllers. Topics include the principles of operation of a programmable controller, the numbering systems used by controllers, logic fundamentals and basics of programming.

ELTR 213L PLC Installation and Operation 3 credit hours (Pre- or corequisite: ELTR 211, 212 or department approval) This course enables a student to install and program programmable logic controllers in accordance with manufacturer's specifications and NEC requirements. Simulating fundamental industrial control processes with various input and output devices is also covered.

ELTR 214L PLC Systems Operation and Troubleshooting 3 credit hours (Pre- or corequisite: ELTR 211, 212 or department approval) This course enables the student to learn intricate industrial wiring, motor controls and motor troubleshooting, programmable controller timer, counter and sequence program operations and the trouble-shooting techniques involved.

ELTR 296 Special Topics 1-6 credit hours (Prerequisite: department approval) This course provides advanced, in-depth study and research into methods and current technological equipment used in the electrical trades.

ENVIRONMENTAL TECHNOLOGY

Associate of Applied Science Degree Main Campus

The Environmental Technology program provides basic classroom instruction in the diverse field of environmental and occupational safety from a health and safety perspective. The curriculum also provides coursework designed to upgrade skills of individuals already employed in the field.

The student receives a broad, general understanding of environmental problems, as well as physical science instruction, in preparation for entry-level jobs. Instruction is provided in biology, chemistry, physics, ecology, environmental legislation, regulation compliance and abatement. The program addresses key areas of environmental protection including biological and hazardous waste, water quality protection, air quality pro-

tection, soil, domestic and industrial waste control, workplace safety, energy management and recycling.

Environmental Technology Program

EPT 101L Emergency First Aid Response EPT 111 Environmental Technology I EPT 112 Hazards and Protection Training EPT 173 Water Quality Protection EPT 198 Cooperative Education or Approved Elective EPT 211L Environmental Technology II/Lab EPT 212 Energy and Waste Management EPT 213 Occupational Safety 3	4 3 3 4 4
EPT 111 Environmental Technology I	4 3 3 4 4
EPT 112 Hazards and Protection Training	3 3 3 4 4
EPT 173 Water Quality Protection	3 3 4 4
Approved Elective EPT 211L Environmental Technology II/Lab 4 EPT 212 Energy and Waste Management 3	}
Approved Elective EPT 211L Environmental Technology II/Lab	, ,
Approved Elective EPT 211L Environmental Technology II/Lab	, ,
EPT 212 Energy and Waste Management 3	;
EPT 212 Energy and Waste Management	;
EPT 213 Occupational Safety	;
	,
EPT 215 Environmental Instrumentation and Analysis	
EPT 232 Air Quality Protection	
or1	
AUTC 172 Air Care Inspector Certification	
VICA 177 Employment Skills	
Computer Elective (any department)	-41
	•
Required Arts & Sciences Courses	
BIO 111 Environmental Science 3	
BIO 123 Biology for Health Sciences	
BIO 124L Biology Lab for Health Sciences	
BIO 231L Applied Environmental Microbiology4	
CHEM 111 Introduction to Chemistry	
CHEM 112L Introduction to Chemistry Lab1	
CHEM 130L Environmental Chemistry	
CHEM 212L Integrated Organic Chemistry and Biochemistry4	
Communications Course (oral communications elective)	
ENG 101 College Writing	
ENG 119 Technical Communication	
MATH 120 Intermediate Algebra	_ 4
MATH 121 College Algebra 3	_
PHYS 102 Introduction to Physics	
Social Science/Humanities Elective3	
Total 55	
76	_

Course Descriptions

EPT 101L Emergency First Aid Response

1 credit hour

This theory/lab course provides instruction in Red Cross multimedia system and cardiopulmonary resuscitation. Red Cross certification is issued. Instruction is also provided in hazardous materials, safety and toxicology. Emphasis is on emergency temporary help in order to preserve life. (.5 theory + 2.5 lab hours a week)

EPT 111 Environmental Technology I

4 credit hours

(Prerequisite: MATH 100, ENG 100 or department approval; 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 112 Hazards and Protection Training

3 credit hours

(Prerequisite: EPT 101, EPT 213, CHEM 111, CHEM 112L, computer elective or department approval) Training is provided in safe work practices at hazardous waste sites. Students in this lab course learn those procedures specified by OSHA in the 29 CFR 1910.120 regulation concerning safety and health plans, site characterization and analysis, waste removal and remedial operations.

EPT 173 Water Quality Protection

3 credit hours -

(Prerequisite: EPT 111, CHEM 111, CHEM 112L, MATH 120, computer elective or department approval) This course provides training in the fundamentals of water quality preservation. Students study water supply system operations, distribution systems and basic hydraulics and become familiar with water quality protection and treatment techniques including backflow prevention and cross connection control.

EPT 198 Cooperative Education

3 credit hours

(Prerequisite: department approval) The student is employed at an approved environmental job-related work station and applies environmental theory learned via goals and objectives.

EPT 211L Environmental Technology II/Lab 4 credit hours (Prerequisite: EPT 111, BIO 231L, CHEM 212L, PHYS 102, MATH 120 or department

(Prerequisite: EPT 111, BIO 251L, CHEM 212L, PHYS 102, MAIH 120 or department approval) This theory/lab course provides instruction in technical, operational and regulatory aspects of environmental technology. Students learn to identify and handle biological, chemical and nuclear wastes. Also covered are site sampling, characterization and assessment, waste removal and site remediation methods. (2 theory + 5 lab hours a week)

EPT 212 Energy and Waste Management 3 credit hours

(Prerequisite: EPT 111, CHEM 111, CHEM 112L, PHYS 102, MATH 120, computer elective or department approval) 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.

EPT 213 Occupational Safety

'3 credit hours

Topics in current safety practices are introduced. Instruction in safety principles and standards is provided. Basic safety concepts and monitoring procedures are emphasized, culminating in inspections and projects that contribute to the T-VI safety program. Occupational Safety and Health Act (OSHA) regulations are included.

EPT 215 Environmental Instrumentation and Analysis 3 credit hours (Prerequisite: EPT 111, MATH 120 or department approval; co requisite: EPT 211L) Contemporary environmental instrumentation and analytical techniques are explored in this theory/lab hands-on introduction to the care and use of laboratory and field-portable instruments. Students learn maintenance, calibration and operation of instruments and meters. USEPA approved protocols are utilized. (1 theory + 5 lab nours a week)

EPT 232 Air Quality Protection

1 credit hour

(Prerequisite: EPT 111, CHEM 111, CHEM 112L, MATH 120, computer elective or department approval) This course provides training in the fundamentals of vehicle pollution control. The course also covers city, state and federal rules and regulations governing air pollution, general and point-source emissions and standard air pollution control methods.

EPT 296 Special Topics

1-6 credit hours

(Prerequisite: department approval) This course includes an in-depth study of problems and advanced techniques.

FIRE SCIENCE

Associate of Applied Science Degree Main Campus

The Fire Science program provides basic classroom instruction in the field of fire protection. Students earn an associate degree and are prepared for entry-level positions. The curriculum trains the student already employed in fire protection.

Some employers may require a high school diploma or GED. The T-VI application will provide verification. Students purchase all textbooks and supplies for this program.

Fire Science Program Credit Hours Fire Service Organization3 FS 102 Introduction to Fire Science2 FS 103 Fire Prevention3 FS 111 Building Construction3 FS 112 Fire Protection Systems3 201 FS Managing Community Fire Protection3 202 FS Hazardous Material3 FS 203 Incident Command and Control3 FS 211 Occupational Safety3 213 **EPT** Physical Fitness 3 1 CJ170 177 VICA *#EMS 160L Fire Investigation3 FS. 212 Industrial Fire Protection3 *FS 213 Facilities Inspection3 214 *FS Tactics I3 *FS 215 Tactics II3 *FS 216 Cooperative Education3-9 *FS 196 (FS 196 may be repeated for up to 9 credits.) *Students have the option of any of these courses for a total of 15 credit hours. #Health Occupations course Required Arts & Sciences Courses College Writing3 **ENG** 101 Technical Communications3 **ENG** 119 CHEM 111/112L Introduction to Chemistry/Lab4 Communications Course (oral communications elective)3

				t	
	MATH	120	Intermediate Algebra		24.
	PHYS	102	Introduction to Physics		3
	Psycholo	gy Ele	ctive		3
	SOC	101	Introduction to Sociology		3
	SOC	216	Received Ethnic Groups		3
			Total	 74=1	te
			A 0 2007 4 200000000000000000000000000000		_
			Course Descriptions	, ,	2-J6
	FS 102	F	ire Service Organization	3 credit	t hours
	(Prerequisite: a	ppropr	iate scores on BOTEL and math placement	test or equiva	ilent or
	department app	roval)	History of fire service, operational definition	s, types of or	ganiza-
	tions, fire depar	tment r	management techniques and governmental in	npact on fire	service
	delivery, emerge	ency m	anagement and future trends in fire protection	on are covered	d.
	FS 103	T.	standardian 4. Eine Cal.	 	_
			ntroduction to Fire Science	2 credit	hours
	and fitness requ	iremen	istory of fire service, careers in fire protect ts, public and private fire protection organiz	ion, physical	agility
	ior and chemistr	v of fi	ra, public and private the protection organiz	and the	benav-
	ioi and onominati	. 5 01 111			
_	_FS 111	F	ire Prevention	3 credit	hours
	This course pres	ents ba	sic principles of fire prevention, public fire a	nd life safety	educa-
	tion and protecti	on pro	vided by alarm and sprinkler systems.		
			-		
	FS 112	Bu	uilding Construction	3 credit	hours
	The student is in	troduce	ed to building construction with emphasis on	structural ele	ments,
	fire spread in bu	ildings	, construction materials, testing fire loading	nd safe fire o	depart-
	ment operations	in dine	erent building types.	1	
	FS 196	C	ooperative Education	2 0 311	
			ent approval) The student is employed at a	3–9 credit	hours
	ence job-related	work st	tation and applies fire science theory learned	approved II	re sci-
	tives.	· · · · · · · · · · · · · · · · · · ·	amon and applies the science incory learned	Ma goais and	objec-
				Į	
	FS 201		re Protection Systems	3 credit	
	The design and o	peratio	on of fire protection systems are covered, inc	luding water	distri-
	bution, detection	, alarm	and watchman services, protection systems	for special ha	zards,
	carbon dioxide, o	dry che	mical, foam and water spray systems.		
	EC 404				
	FS 202		anaging Community Fire Protection	3 credit	hours
					_
	productivity less	nes ns	k assessment, resource management, measu	ring and eval	uating

productivity, legal aspects of emergency service delivery, principles of employee super-

vision and the changing mission and role of fire service in the community.

FS 203 Hazardous Materials

3 credit hours

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.

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FS 211 Incident Command and Control

3 credit hours

Basic principles of fire-fighting strategies, fire ground operations, general and special emergencies, incident command and communication, and multi-jurisdictional incidents as they involve fire service response are discussed in this course.

FS 212 Fire Investigation

3 credit hours

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. Also included are interviews and arson case preparation techniques.

FS 213 Industrial Fire Protection

3 credit hours

This course covers OSHA fire brigade regulations, organization of fire brigades and fire brigade functions. Problems in storage and use of hazardous materials commonly found in industry are included.

FS 214 Facilities Inspection

3 credit hours

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 215 Tactics I

3 credit hours

This course covers basic concepts in strategy and tactics. The emphasis is on tactical operations on the fire-ground. Structural firefighting and various means of rescue are taught so students understand the role of firefighter, fire officer or chief officer.

FS 216 Tactics II

3 credit hours

(Prerequisite: FS 215 or department approval) This course covers basic concepts in strategy and tactics as they apply to emergencies. The focus is on high-rise fires, collapse rescue, wild land fires, crash fire and rescue, hazardous materials, emergency medical services and safety. Tactical operations as related to firefighter, fire officer and chief officer are compared to incidents encountered.

FS 296 Special Topics

1-6 credit hours

(Prerequisite: department approval) This course includes an in-depth study of problems and advanced techniques.

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. Safety and sanitation procedures are stressed.

Classroom instruction includes theory in human relations, supervision and business practices. A cooperative education portion is available under the supervision of the instructor.

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

Food Service Management Program

FSMG	101	Operations Management	Credit Hours
FSMG	102	Human Resource Management	
FSMG	103	Product Management	
FSMG	198	Cooperative Education	
		Total	13
		Course Descriptions	ļ

FSMG 101 Operations Management

3 credit hours

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This course introduces the student to basic functions of supervision, management, sanitation, quality control, purchasing, record keeping, inventory criteria, storing, issuing, safety and oral and written communication skills. Certifications are available in sanitation, CPR and standard first aid.

FSMG 102 Human Resource Management

3 credit hours

This course introduces the student to skills in customer relations, interviewing and training, delegation, discipline, communications and human relations. Role playing and group participation are involved. Job seeking and retention skills are stressed.

FSMG 103 Product Management

3 credit hours

This course introduces the student to safety, sanitation rules, food nutrition, menu planning, marketing and cost control formulas to advance into supervision and management. This course includes oral and written communication skills.

FSMG 170L Computers in Food Service

3 credit hours

(Prerequisite: FSMG 101, 102, 103 or department approval) This combination lab/theory course emphasizes the use of computers, including WordPerfect and Lotus software, in the food service industry. (1 theory + 5 lab hours a week)

FSMG 198 Cooperative Education

4 credit hours

The student is employed at an approved job-related work site and applies management theory learned in FSMG 102, 103 and 104 via goals and objectives.

FSMG 296 Special Topics

1-6 credit hours

This course enables Culinary Arts students to pursue expanded studies in management skills in the hospitality industry. It also may be taken as an independent or guided study or refresher course. Hours are by arrangement.

MACHINE TOOL TECHNOLOGY

Certificate Program Main Campus

The Machine Tool Technology program qualifies students for job entry as machine tool operators. All courses emphasize safe operations of various machine tools. Classes meet in well equipped labs where students are introduced to micrometers, gauges, drill presses, hand tools, engine lathes, milling machines, numerically controlled turning and machining centers and other equipment used throughout the metal working industry.

Students 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 must have depth perception correctable in both eyes.

Machine Tool Technology students must pay a tool fee of \$122 before entering MATT 103L, 104L or 105L; \$98 before entering MATT 117L or 118L; and \$85 before entering MATT 208L or 209L.

Machine Tool Technology Program

		Credit Ho	urs
MATT	101	Machine Tool Technology Math I	2
MATT	102	Machine Tool Technology Blueprint Reading I	2
MATT	103	Basic Engine Lathe Theory	2
MATT	103L	Basic Engine Lathe Principles	2
MATT	104	Milling Machine Theory	2
MATT	104L	Milling Machine Principles	2
MATT	105	Basic Supporting Machine Tool Theory	2

2	ples	Basic Supporting Machine Tool Princ	105L	MATT
2		Machine Tool Technology Math II	111	MATT
1	eading II	Machine Tool Technology Blueprint F	113	MATT
3		Numerical Control Programming I	116	MATT
4	<u></u>	Intermediate Lathe Principles	117L	MATT
	пррогt	Intermediate Milling Machining and S	118L	MATT
4		Equipment Lab		
1	***************************************	Employment Skills	177	VICA
1	ing	Geometric Tolerancing and Dimension	201	MATT
2		Metallurgy	202	MATT
		Numerical Control Programming II	207	MATT
4	ļ	Advanced Lathe Principles	208L	MATT
		Advanced Milling Machining and Sup	209L	MATT
45	1	Total		

Course Descriptions

MATT 101 Machine Tool Technology Math I

2 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) The course provides a review of basic shop math including whole numbers, fractions and decimals. Instruction is provided in basic geometry, shop algebra and formula manipulation, Pythagorean theorem and triangulations and calculator usage.

MATT 102 Machine Tool Technology Blueprint Reading I 2 credit hours (Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) 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.

MATT 103 Basic Engine Lathe Theory

2 credit hours

(Pre- or corequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) Students are introduced to the basic elements of the engine lathe. Information pertains to safety, terminology, machine elements, cutting physics, measurement for turning applications, formulas and calculations for turning applications and related operations.

MATT 103L Basic Engine Lathe Principles

2 credit hours

(Pre- or corequisite: MATT 103 or department approval) This course covers basic engine lathe operations. Instruction is offered in safety, nomenclature, speeds and feeds, use of three and four jaw chucks, turning, facing, shouldering, grooving, chamfering and drilling.

MATT 104 Milling Machine Theory

2 credit hours

(Pre- or corequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) Basic elements of the milling machine are introduced. Information pertains to safety, terminology, machine elements, cutting physics, measurement for milling applications, formulas and calculations for milling applications and related operations.

MATT 104L Milling Machine Principles

2 credit hours

(Pre- or corequisite: MATT 104 or department approval) This course covers basic milling machine operations. Instruction is offered in safety, nomenclature, speeds, feeds and depths of cut, care and use of milling cutters, squaring, step milling, edge finding, drilling, reaming, countersinking, counterboring and tapping.

MATT 105 Basic Supporting Machine Tool Theory 2 credit hours

(Pre- or corequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) This course introduces students to the basic elements of the drill press, bandsaws, grinders, benchwork, precision measurement equipment and hand tools. Information pertaining to safety, terminology, machine elements, cutting physics, layout and related formulas and calculations is covered.

MATT 105L Basic Supporting Machine Tool Principles 2 credit hours (Pre-or corequisite: MATT 105 or department approval) Topics include basic drill press, bandsaw, grinder, benchwork, inspection and hand tool operations. Instruction is offered in safety, nomenclature, speeds and feeds, care and use of tooling and measuring instruments, machine maintenance and precision layout.

MATT 111 Machine Tool Technology Math II 2 credit hours (Prerequisite: MATT 101 or department approval) This is 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.

MATT 113 Machine Tool Technology Blueprint Reading II 1 credit hour (Prerequisite: MATT 102 or department approval) Instruction is provided in the interpretation of engineering drawings as they relate to the machining trade. Emphasis is placed on tolerances and allowances, surface texture, auxiliary views and working shop drawings.

MATT 116 Numerical Control Programming I 3 credit hours

(Pre- or corequisite: MATT III or department approval) This course provides instruction in word address format programming languages. Students learn computer skills necessary to edit and prepare tapes for CNC equipment. This class offers instruction on CNC vertical milling machines and a turning center. Job seeking and retention skills are stressed.

MATT 117L Intermediate Lathe Principles

4 credit hours

(Prerequisite: MATT 103L or department approval) This course covers power cutoff, boring, single point threading and introduction to carbide tooling. Operation of CNC turning centers and taper turning is introduced.

MATT 118L Intermediate Milling Machining and Support Equipment Lab

4 credit hours

(Pre- or corequisite: MATT 104L or department approval) This course covers operation of horizontal and vertical milling machines. Instruction is offered in climb and conventional milling, hole production, gear machining, operation of CNC milling machines, surface and pedestal grinders, and setup of precision measuring equipment. Safety is stressed.

MATT 171 Precision Measurement

3 credit hours

This is an introduction to basic measurement principles and techniques. Student are instructed in the care, calibration, uses and applications of micrometers, vernier calipers, indicators and other measuring equipment specific to their majors.

MATT 173 Machine Tool Technology Skills Improvement 3 credit hours This theory/lab course is for students wishing to acquire basic knowledge or upgrade skills in the machine tool industry. Instruction is offered in safety, hand tools, lathe, mill, drill press, bench work, measurement, blueprint reading and shop hours a week)

MATT 174 Advanced Machine Tool Technology Skills Improvement

3 credit hours

(Prerequisite: MATT 173 or department approval) This course offers advanced instruction in lathe and mill work and surface grinding. More advanced precision measuring techniques, blueprint reading and shop math are covered. (1 theory + 5 lab hours a week)

MATT 201 Geometric Tolerancing and Dimensioning (Prerequisite: MATT 101, 102 or department approval) The focus is on interpretation of engineering drawings using the geometric dimensioning and tolerancing system. Methods, equipment and setups to inspect workpieces relating to the geometric dimensioning and tolerancing system are also studied.

MATT 202 Metallurgy

2 credit hours

(Pre- or corequisite: MATT 101, 102 or department approval) This course includes the care and application of tooling with emphasis on applications to commonly machined materials with high-speed steel and carbide cutters. Instruction covers structure, properties, alloying and heat treatment of ferrous and non-ferrous metals.

MATT 207 Numerical Control Programming II

3 credit hours

(Pre- or corequisite: MATT 116 or department approval) Advanced instruction is provided in numerical control programming languages. Subjects include advanced canned cycles, subroutines, loops and macros. Students receive instruction and training in menu and interactive graphic programming and an introduction to CAD/CAM systems.

MATT 208L Advanced Lathe Principles

4 credit hours

(Pre- or corequisite: MATT 117L or department approval) This course covers pressure padding, trepanning, set-up and use of soft jaws, internal threading, internal grooving and production machining. Students also receive training in the set-up and operation of CNC turning centers.

MATT 209L Advanced Milling Machining and Support Equipment

4 credit hours

(Pre- or corequisite: MATT 118L or department approval) This course covers advanced operations on horizontal and vertical ram milling machines. Instruction is offered in complex set-ups using rotary tables, indexing devices, production techniques, carbide shell mills, CNC milling centers, surface grinders and precision measuring equipment.

MATT 296 Special Topics

1-6 credit hours

(Prerequisite: department approval) This flexible course enables students to pursue studies in specialized areas. This class may also be taken as an independent or guided study, as a refresher course or to sharpen skills prior to employer exams.

MECHANICAL TECHNOLOGY

Associate of Applied Science Degree Main Campus

The Mechanical Technology associate of applied science degree is available with two options: air conditioning and plumbing. Cross training in both programs is provided.

All courses must be passed with a minimum grade of C to qualify for graduation.

Mechanical Technology Program

Option 1: Air Conditioning, Heating and Refrigeration

Credit Hours			
2	Basic Refrigeration Theory	101	ACHR
2	Basic Refrigeration Lab	101L	ACHR

ACHR	102	Basic Control Circuitry Theory	2		
ACHR	102L	Basic Control Circuitry Lab			
ACHR	103	Basic Air Conditioning Theory			
ACHR	103L	Basic Air Conditioning Lab	2		
ACHR	104	Basic Refrigeration Math	1		
ACHR	111	Intermediate Heating Theory	2		
ACHR	111L	Intermediate Heating Lab	2		
ACHR	112 '	Intermediate Control Circuitry Theory	2		
ACHR	1 12 L	Intermediate Control Circuitry Lab	2		
ACHR	113	Intermediate Air Conditioning Theory			
ACHR	113L	Intermediate Air Conditioning Lab	2		
ACHR	114	Math for Systems Design	3		
VICA	177	Employment Skills			
ACHR	201	Advanced Air Conditioning			
		and Refrigeration Theory			
ACHR	201L	Advanced Air Conditioning and Refrigera	ation Lab2		
ACHR	202	Commercial Air Conditioning			
		and Refrigeration Theory			
ACHR	202L	Commercial Air Conditioning and Refrige			
ACHR	203	Advanced Building Controls Theory	2		
ACHR	203L	Advanced Building Controls Lab	2		
ACHR	204L	Advanced Control Circuitry Lab	1		
A	dditiona	l Required Trades & Service Occupations	Courses		
PLMB	101	Basic Plumbing Theory	1		
PLMB	101L	Basic Plumbing Lab			
PLMB	102	Plumbing Systems Theory			
PLMB	102L	Plumbing Systems Lab	2		
PLMB	105	Plumbing Blueprint Reading I	1		
PLMB	106L	Backflow Prevention			
EPT	213	Occupational Safety			
`					
Computer Elective (any department)3-4					
Required Arts & Science Courses					
Commun	nications	s Corse (oral communications elective)	1 ' 2		
ENG	101	College Writing	2		
ENG	102 or	College Writing ENG 119	3		
Humanities/Social Science Elective					
Math Ele				4	
			1	•	
111,31031					
		Total	75 80	-	

Option 2: Plumbing

		Crean nours		
PLMB	101	Basic Plumbing Theory1		
PLMB	101L	Basic Plumbing Lab2		
PLMB	102	Plumbing Systems Theory1		
PLMB	102L	Plumbing Systems Lab2		
PLMB	103	Heating Control Circuitry Theory1		
PLMB	103L	Heating Control Circuitry Lab2		
PLMB	104	Plumbing Mathematics1		
PLMB	105	Plumbing Blueprint Reading I 1		
PLMB	106L	Backflow Prevention2		
PLMB	111	Systems Layout/Maintenance Theory 1		
PLMB	111L	Systems Layout Lab2		
PLMB	112L	Systems Maintenance Lab2		
PLMB	113	Energy Management/Solar Application1		
PLMB	113L	Energy Management Lab2		
PLMB	114L	Solar Applications Lab2		
PLMB	115	Plumbing Blueprint Reading II2		
	Othe	r Required Trades & Service Occupations Courses		
EPT	213	Occupational Safety3		
ACHR	101	Basic Refrigeration Theory2		
ACHR	101L	Basic Refrigeration Lab2		
ACHR	102	Basic Control Circuitry Theory2		
ACHR	102L	Basic Control Circuitry Lab2		
ACHR	103	Basic Air Conditioning Theory2		
ACHR	103L	Basic Air Conditioning Lab2		
ACHR	104	Basic Refrigeration Math1		
ACHR	111	Intermediate Heating Theory2		
ACHR	111L	Intermediate Heating Lab2		
WELD	170	Welding Skills Improvement3		
VICA	177	Employment Skills1		
Required Technologies Course				
ARDR 1	δA	Projectial Drafting Fundamentals 3		
Required Arts & Sciences Courses				
Verbal Communications Elective				
ENG				
ENG 102 or ENG 1193				
Humanities/Social Science Elective3				
Math Ele	Math Elective34			

Physics Elective	
Computer Elective (any department)	
Total	
AVIA :::::::::::::::::::::::::::::::::::	75

METALS TECHNOLOGY

Associate of Applied Science Degree Main Campus

The Metals Technology associate of applied science degree is available with two options: machine tool technology and welding.

The program prepares individuals for entry-level positions in the metal working industry. The program also provides the opportunity to transfer to a four-year program. Personal safety is stressed.

Courses are from the Machine Tool Technology and Welding certificate programs along with Business Occupations, Technologies and Arts & Sciences.

Metals Technology Program

Option 1: Machine Tool Technology

				Credit Hours
	MATT	101	Machine Tool Technology Mathematics	2
	MATT	102	Machine Tool Technology Blueprint Rea	ling I 2
_	- MATT	103	Basic Engine Lathe Theory	
	MATT	103L	Basic Engine Lathe Principles	2
	MATT	104	Milling Machine Theory	
	MATT	104L	Milling Machine Principles	2
	MATT	105	Milling Machine Principles	2
	MATT	105L	Basic Supporting Machine Tool Principle	s2
	MATT	111	Machine Tool Technology Math II	2
	MATT	113	Machine Tool Tech. Blueprint Reading II	1
	MATT	116	Numerical Control Programming I	3
	MATT	117L	Intermediate Lathe Principles	4
	MATT	118L	Intermediate Milling Machining Support	Equipment 4
	MATT	201	Geometric Tolerancing and Dimensioning	1
	MATT	202	Metallurgy	2
	MATT	207	Numerical Control Programming II	3
	MATT	208L	Advanced Lathe Principles	4
	MATT	209L	Advanced Milling Machining and Suppor	Equipment . 4
	VICA	177	Employment Skills	 1

Welding Electives6				
Business Occupations and/or Technologies Elective(s)3				
Compute	r Electi	ve (any department) 3-4		
•		D 1 14 1 0 0 1		
		Required Arts & Sciences Courses		
Commun	iications	Course (oral communications elective)3		
ENG	101	College Writing		
ENG	119	Think I Commissions L. M. Turny Electrical 3		
Humanit	ies/Soci	al Science Elective3		
Math Ele	ctive			
Physics I	Elective	3		
		Total75-76		
		7		
		Option 2: Welding		
		Credit Hours		
WELD	101	Welding Metallurgy Theory I2		
WELD	102	Welding Mathematics I		
WELD	103	Welding Blueprint Reading I1		
WELD	104L	Oxyacetylene Welding and Cutting2		
WELD	105L	Oxyacetylene Brazing/Soldering and Fabrication 2		
WELD	106L	Introduction to SMAW		
WELD	107L	Introduction to SMAW Qualifications		
		and Fabrication2		
WELD	111	Welding Metallurgy Theory II2		
WELD	112	Welding Blueprint Reading II2		
WELD	113	Welding Math II1		
WELD	114L	Advanced SMAW2		
WELD	115L	Introduction to GMAW/Fabrication2		
WELD	1 16 L	Introduction to Gas Tungsten-Arc		
		Welding/Fabrication2		
WELD	117L	Qualifications for SMAW and GMAW2		
WELD	201	Welding Metallurgy Theory III2		
WELD	202	Welding Blueprint Reading III3		
WELD	203L	Basic Pipe Welding/Pipe Layout/Fabrication4		
WELD	204L	Advanced Gas Tungsten-Arc Welding/Fabrication4		
VICA	177	Employment Skills1		
Machine	Tool Te	echnology Elective(s)6		
Business Occupations and/or Technologies Elective(s)3-6				
Computer Elective (any department)3-4				

Required Arts & Sciences Courses

Communication	s Course (oral communications elective)	*****************	3
ENG 101	College Writing	· · · · · · · · · · · · · · · · · · ·	3
ENG HAGE	College Writing	na Blackus	3
	ial Science Elective		
Math Elective	***************************************	4	3-4
Physics Elective		*************	3
•	Total		
			ंच∉

PLUMBING

Certificate Program Main Campus

The Plumbing program provides safety training, technical knowledge and occupational skills necessary to enter the plumbing industry. Instruction is in the fundamentals of layout, assembly and installation, as well as nomenclature of cools and materials and practice with the tools of the trade.

Emphasis is on new construction, 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.

Students must be free of chronic respiratory diseases and allergies to plumbing fluxes, oils, glues and plastic compounds, and must be able to lift 50 pounds. Students purchase all textbooks for this program.

Plumbing students must pay a tool fee of \$122 before entering PLMB 101L, 102L, 103L or 106L; and \$85 before entering PLMB 111L, 112L, 113L or 114L.

Plumbing Program

			Credit Hours
PLMB	101	Basic Plumbing Theory	
PLMB	101L	· Basic Plumbing Lab	
PLMB		Plumbing Systems Theory	
PLMB		Plumbing Systems Lab	
PLMB	103	Heating Control Circuitry Theory	
PLMB	103L	Heating Control Circuitry Lab	
PLMB	104	Plumbing Mathematics	
PLMB	105	Plumbing Blueprint Reading I	
PLMB	106L	Backflow Prevention	
PLMB	111	Systems Layout/Maintenance Theory	1

PLMB	111L	Systems Layout Lab	2
PLMB	112L	Systems Maintenance Lab	2
PLMB	113	Energy Management/Solar Application Theory	1
PLMB	113L	Energy Management Lab	2
PLMB	114L	Solar Applications Lab	2
PLMB	115	Plumbing Blueprint Reading II	2
VICA	177	Employment Skills	1
		Total	26

Course Descriptions

PLMB 101 Basic Plumbing Theory

1 credit hour

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) Procedures for installing plastic, steel, cast iron and copper pipe are covered. Installation, addition, repair, replacement or maintenance of plumbing and gas piping systems are also covered. Personal safety is stressed.

PLMB 101L Basic Plumbing Lab

2 credit hours

(Pre- or corequisite: PLMB 101 or department approval) Identification of plumbing fittings and pipe nomenclature is covered. The correct procedures for soldering copper pipe, threading and cutting iron pipe, flaring copper pipe and making diagonal offsets are covered.

PLMB 102 Plumbing Systems Theory

1 credit hour

(Pre- or corequisite: PLMB 101 or department approval) This class covers the 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.

PLMB 102L Plumbing Systems Lab

2 credit hours

(Pre- or corequisite: PLMB 101, PLMB 102 or department approval) The student is introduced to the correct procedure for installation, repair and service of drainage and vent, sprinkler and water supply systems. Rough-ins and top outs are also covered.

PLMB 103 Heating Control Circuitry Theory 1 credit hour

(Pre- or corequisite: PLMB 101, PLMB 102 or department approval) This course includes installation and troubleshooting of heating control circuitry. Control theory, terminology and symbols are covered. Instructional emphasis is on electrical control devices from various manufacturers. Also covered are the reading and developing of wiring diagrams and line schematics.

PLMB 103L Heating Control Circuitry Lab

2 credit hours

(Pre- or corequisite: PLMB 102L, PLMB 103 or department approval) The focus is on installation and troubleshooting of heating control circuitry. The correct use of electrical test instruments is stressed. Wiring and testing gas-fired heating test boards and actual furnaces are also covered. Safety is stressed.

PLMB 104 Plumbing Mathematics

1 credit hour

(Pre- or corequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) This course covers basic arithmetic, whole numbers, fractions and decimals. Volumes and weight measurements are also covered.

PLMB 105 Plumbing Blueprint Reading I

1 credit hour

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) This course introduces blueprint reading. Also covered are sketching and reading blueprint working drawings for new construction, maintenance and remodeling.

PLMB 106L Backflow Prevention

2 credit hours

Students identify, test and repair backflow prevention assemblies in this theory/lab course. A minimum of 50 percent of class time is spent in the lab. Completion of the course qualifies the student to become a certified backflow prevention assembly tester. Personal safety is emphasized. (1 theory + 3 lab hours a week)

PLMB 111 Systems Layout/Maintenance Theory

1 credit hour

(Prerequisite: PLMB 103L, PLMB 106L or department approval) This course emphasizes design, layout and installation of water, soil and vent lines, fixtures and fittings; inspecting and testing systems; soldering; maintenance and regain of plumbing, solar systems and yard irrigation; and swimming pool, hot tub and spa installation and service.

PLMB 111L Systems Layout Lab

2 credit hours

(Pre- or corequisite: PLMB 106L, PLMB 111 or department approval) The emphasis is on layout and installation of water, soil and vent lines, related fixtures and fittings, inspecting and testing systems and soldering.

PLMB 112L Systems Maintenance Lab

2 credit hours

(Pre- or corequisite: PLMB 111, PLMB 111L or department approval) This course covers maintenance and repair of plumbing and yard irrigation as well as swimming pool, hot tub and spa installation and service.

PLMB 113 Energy Management/Solar Application Theory 1 credit hour (Pre- or corequisite: PLMB 111L, PLMB 112L or department approval) 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 for heating

is on the selection, installation, maintenance and repair of solar equipment water and air.

PLMB 113L Energy Management Lab

2 credit hours

(Pre- or corequisite: PLMB 112L, PLMB 113 or department approval) Management of energy packages is presented. The course covers life styles, design and orientation as well as energy conservation methods and procedures.

PLMB 114L Solar Applications Lab

2 credit hours

(Pre- or corequisite: PLMB 112L, PLMB 113L or department approval) This course covers the selection, installation, maintenance and repair of solar equipment for heating water and air.

PLMB 115 Plumbing Blueprint Reading II

2 credit hours

(Prerequisite: PLMB 104, PLMB 105 or department approval) Course content includes a detailed study of piping drawings, isometric pipe layouts, interpreting blueprints, application of plumbing codes, knowledge of terms, and planning and coordinating the job.

PLMB 170 Mechanical Trades Math

1 credit hour

Topics include basic arithmetic, whole numbers, fractions and decimals. Volumes, weight measurements and basic algebra as it applies to electricity are also covered.

PLMB 171 Journeyman Preparation

3 credit hours

This course is designed for persons interested in becoming journey level plumbers and natural gas fitters in New Mexico. Licensing requirements, rules and regulations and the Uniform Plumbing Code are covered.

PLMB 173L Orbital Automated Welding Systems 4 credit hours

This theory/lab course provides instruction in automated pipe ultra-pure stainless steel welding. Students operate and interpret the orbital tube welding machine, identify the operating sequence, and lay out and analyze welding applications for testing sequences. (2 theory + 5 lab hours a week)

PLMB 174L Polyvinlediene Fluoride (PVDF) 4 credit hours Welding Systems

(Prerequisite: PLMB 173L) In this theory/lab course instruction includes Asahi Butt Fusion System, UF 2000 infra-red fusion and bead and crevice free system. (2 theory + 5 lab hours a week)

PLMB 296 Special Topics

1-6 credit hours

This flexible course is designed to enable students currently in the plumbing trades to pursue studies in specialized areas. This class also may be taken as an independent or guided study or as a refresher to sharpen skills prior to licensing.

QUANTITY FOOD PREPARATION

Certificate Program Main Campus

The Quantity Food Preparation program emphasizes occupational safety/sanitation criteria and nutritional food preparation. It prepares students for entry into the rapidly growing food industry—as saute cooks after the first term or dimer cooks upon completion of the full program.

Classes are held in industrial kitchens. Students prepare large quantities of food and operate a cafeteria line including cash registers. Advanced students operate the Student Specialties program, a fine dining restaurant open to the public.

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.

Students must be free of chronic allergies. Each student must also present a physician's certificate to T-VI before the start of classes stating that the student is free from tuberculosis in a transmissible form.

Quantity Food Preparation students must pay a tool fee of \$122 before entering QUFD 103L, 104L, 105L or 106L, and another \$98 before entering QUFD 112L, 113L, 114L, 115L or 116L.

Quantity Food Preparation Program

			Credit Hours
QUFD	101	Quantity Food Theory I	
QUFD	102	Food Service Math	3
QUFD	103L	Buffet Procedures	
QUFD	104L	Salad and Pantry	
QUFD	105L	Dinner	
QUFD	106L	Fry	
VICA	177	Employment Skills	
QUFD	111	Quantity Food Theory II	
QUFD	112L	Dining Room Skills	1
QUFD	113L	Cold Preparation	2
QUFD	114L	Stocks and Sauces-Sous Chef	2
QUFD		Entree (Meat Preparation)	
QUFD		Entree (Fish Preparation)	
		Total	26

Course Descriptions

QUFD 101 Quantity Food Theory I

2 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) This course provides instruction in large quantity cooking of preparing 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.

QUFD 102 Food Service Math

3 credit hours

(Pre- or corequisite: QUFD 101 or department approval) Basic arithmetic for sales, portioning and costing of food products is covered. Students also learn how to operate cash registers.

OUFD 103L Buffet Procedures

2 credit hours

(Pre- or corequisite: QUFD 101, 102 or department approval) This course provides instruction for safe and sanitary front-of-the-house serving techniques, cashiering and product tracking.

OUFD 104L Salad and Pantry

2 credit hours

(Pre- or corequisite: QUFD 101, 102 or department approval) Safe and sanitary procedures are utilized as assorted garnishes, salads, dressings, sandwiches, soups, vegetables and condiments are stressed.

QUFD 105L Dinner

2 credit hours

(Pre- or corequisite: QUFD 101, 102 or department approval) Entree preparation of various types, along with complementary sauces, is covered. The course ranges from breakfast to lunch and special main offerings. Safe and sanitary conditions are promoted.

OUFD 106L Fry

2 credit hours

(Pre- or corequisite: QUFD 101, 102 or department approval) Entree preparation of various types is stressed, including saute, deep fat and table side frying for the restaurant industry.

QUFD 111 Quantity Food Theory II

3 credit hours

(Prerequisite: QUFD 101, 102, 103L, 104L, 105L, 106L or department approval) Methods of cooking stews, fricassees, garnishes, sauces and other dinner items are presented. Also covered are herbs and spices, salad preparation, use of recipes, application of costing procedures, pantry work, restaurant service and operation and customer service.

QUFD 112L Dining Room Skills

1 credit hour

(Pre- or corequisite: QUFD 111 or department approval) Setting tables, folding napkins, servicing customers, cashiering and managing a service staff in the dining room are covered in this course.

QUFD 113L Cold Preparation

2 credit hours

(Pre- or corequisite: QUFD 111 or department approval) Safe and sanitary basic salad and dressing preparations and dessert preparations are practiced. Skills such as safe use of knives are developed.

OUFD 114L Stocks and Sauces—Sous Chef

2 credit hours

(Pre- or corequisite: QUFD 111 or department approval) Students safely prepare stocks and the basic sauces and derivations of these sauces.

QUFD 115L Entree (Meat Preparation)

2 credit hours

(Pre- or corequisite: QUFD 111 or department approval) Safe basic techniques of preparing meats and poultry are covered.

QUFD 116L Entree (Fish Preparation)

2 credit hours

(Pre- or corequisite: QUFD 111 or department approval) Basic techniques of preparing fish using safe and sanitary procedures are presented.

QUFD 296 Special Topics

1-6 credit hours

(Prerequisite: department approval) This course enables students enrolled in Culinary Arts classes to pursue related studies in specialized areas.

SMALL ENGINE TECHNOLOGY

Certificate Program Main Campus

The Small Engine Technology program provides entry-level skills needed to diagnose and repair problems on recreational vehicles, industrial equipment and outdoor power products. Proper safety procedures and work ethics along with the correct use and selection of hand tools 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 service shops and power equipment repair facilities.

Students must be free of chronic respiratory diseases and allergies to fuels and solvents. A valid driver's license and a good driving record are required by most employers.

Students must pay a tool fee of \$122 before entering any lab dourse.

Small Engine Technology Program

			Credit Hours
SCSE	101	Small Engine Technology Theory I	3
DETC	102	Math/Basic Electricity	3
SCSE	102L	Engine Service and Overhaul	2
SCSE	103L	Failure Analysis	1
SCSE	104L	Fuel Systems	2
SCSE	107L	Ignition Systems	2
VICA	177	Employment Skills	1
		Total	14

Course Descriptions

SCSE 101 Small Engine Technology Theory I 3 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) This course introduces students to power equipment and the air cooled engine industry. Information pertaining to safety, environmental issues, hand tools, measuring devices and test equipment is covered. Engine fuel systems, ignition systems, measuring, rebuilding procedures and testing are presented on small gasoline engines.

SCSE 102L Engine Service and Overhaul

(Pre- or corequisite: SCSE 101 or department approval) Students receive instruction on engine inspection, cleaning, reconditioning, general repairs and operational testing for both two- and four-stroke cycle engines.

SCSE 103L Failure Analysis

1 credit hour

2 credit hours

(Pre- or corequisite: SCSE 101 or department approval) Problem solving is presented as it applies to mechanical devices and the internal combustion engine. Students analyze component wear points, study cause and effect relationships on failed engine parts, and develop conclusions about component failures based on facts.

SCSE 104L Fuel Systems

2 credit hours

(Pre- or corequisite: SCSE 101 or department approval) Students learn identification, diagnosis, inspection and repair of carburetion and fuel system components. Special emphasis is placed on learning proper fuel mixture adjustment procedures.

SCSE 107L Ignition Systems

2 credit hours

(Pre- or corequisite: SCSE 101 or department approval) Magneto, breaker point, solid state and other electronically controlled ignition systems are diagnosed and repaired on various types of equipment.

SCSE 170L Small Engine Skills Improvement I

3 credit hours

This basic theory/lab course offers instruction in the diagnosis and repair of small fourstroke air cooled engines. The issues of safety, engine identification, special tools, ignition, cooling, lubrication, engine rebuilding and fuel systems are studied. (1 theory + 5 lab hours a week)

SCSE 171L Small Engine Skills Improvement II

3 credit hours

(Prerequisite: SCSE 170L or department approval) This intermediate theory/lab course offers instruction and practice in the diagnosis and repair of small two-stroke powered equipment. Chain saw service and chain sharpening, blower and line trimmer service are addressed. Continued safety instruction is integral to the course (1 theory + 5 lab hours a week)

SCSE 296 Special Topics

1-6 credit hours

(Prerequisite: department approval) This is an in-depth study of problems and the advanced techniques used by mechanics.

TRANSPORTATION TECHNOLOGY

Associate of Applied Science Degree Main Campus

/ The Transportation Technology associate degree is available to students in Transportation Trades programs with three options: Automotive Body Repair, Automotive Technology and Diesel Equipment Technology.

The program prepares individuals for entry-level positions, including management and supervision, in the transportation industry.

Courses are from the Automotive Body Repair, Automotive Technology and Diesel Equipment Technology certificate programs and from other Trades & Service Occupations programs, as well as Arts & Sciences.

Option 1: Automotive Body Repair

			Crean mours
AUBO	101	Auto Body Theory 1	3
DETC	102	Math/Basic Electricity	3
AUTO	102L	Welding Plastics and Adhesives I	2
AUBO	103L	Metal Prep/Repair and Mechanical Syste	ns2
AUBO	104L	Metal Finishing/Body Filling	2
AUBO		Basic Refinishing Systems	
AUBO	111	Auto Body Theory II	I _
AUBO	112L	Welding Plastic and Adhesives II	
		~	1

AUBO	113L	Suspension and Alignment2
AUTO	114L	Frame and Unibody Repair2
AUBO	115L	Mechanical Systems2
AUTO	118L	Automotive Glass Lab1
VICA	177	Employment Skills1
AUBO	201	Auto Body Theory III3
AUBO	202L	Welding Plastics and Adhesives III2
AUBO	203L	Advanced Refinishing Systems/Techniques3
AUBO	204L	Advanced Restraint/Electrical Systems1
AUBO	206L	Air Conditioning1
AUBO	208L	Advanced Frame and Unibody Repair2
A	ddition	al Required Trades & Service Occupations Courses
AUTC	113	Transportation Electronics3
AUTO E	Elective	3
EPT	101L	Emergency First Aid Response1
EPT	213	Occupational Safety3
Comput	er Electi	ive (any department)3-4
		Required Arts & Sciences Courses
Commun	ications	Course (oral communications elective)3
ENG	101	College Writing3
English		(writing elective)3
Math El	ective	3_ _ 3
Physics	Elective	3
Humani	ties/Soci	ial Science Elective3
_		Total70-21
		Option 2: Automotive Technology
		Credit Hours
AUTC	101	Braking Systems Theory 1
DETC	102	Math/Basic Electricity3
AUTC	101L	Braking Systems Lab2
AUTC	102	Suspension and Alignment Theory2
AUTC	102L	Suspension and Alignment Lab2
AUTC	103	Manual Transmission and Axles Theory2
AUTC-	103L	Manual Transmission and Axles Lab2
AUTC	111	Engine Overhaul Theory2
AUTC ¹	111L	Engine Overhaul Lab2
AUTC	112	Auto Transmission and Transaxles Theory2
AUTC	112L	Auto Transmission and Transaxles Lab2
AUTC	113	Transportation Electronics

AUTC	114	Heating and Air Conditioning Theory1	
AUTC	114L	Heating and Air Conditioning Lab	
VICA	177	Employment Skills1	
AUTC	201	Employment Skills	
AUTC	201L		
AUTC	202	Automotive Fuel Systems Theory2	
AUTC	202L	Automotive Fuel Systems Lab2	
AUTC	203	Automotive Computer Systems Theory2	
AUTC	203L	Automotive Computer Systems Lab2	
А	ddition	al Required Trades & Service Occupations Courses	
EPT	101L	Emergency First Aid Response	
EPT	213	Occupational Safety	
Welding	Electiv	/e3	
Comput	er Electi	ive (any department)	
Compac	OI 21001.		
		Required Arts & Sciences Courses	
Commu	nication	ns Course (oral communications elective)3	
ENG	101	College Writing	
English	Course	(writing elective)	
Math El-	ective	3	-4
		e3	
Humani	ties/Soc	sial Science Elective3	
		Total	.77_
	_		
	C	Option 3: Diesel Equipment Technology	
		Credit Hours	
DETC	101	Diesel Drive Train Theory3	
DETC	102	Math/Basic Electricity3	
DETC	103L	Manual Shift Transmissions Lab	
DETC	104L	Drive Axles, Brakes, Automatic Transmissions Lab3	
DETC	105L		
DETC	111	Diesel Engine Theory	
DETC	111L	Diesel Engine Overhaul	
DETC	11 2 L	Precision Measurement and Component	
A 7 1000	110	Repair Lab	
AUTC	113	Transportation Electronics	
DETC	113L	Engine Tune-up and Testing Lab	
DETC	201	Diesel Electrical Theory	
DETC	201L	Diesel Electrical Lab	
DETC	202	Diesel Fuel Injection Theory	
DETC	202L	Diesel Fuel Injection Lab	

DETC	203	Transport Refrigeration/Air Conditioning Theory.	1
DETC	203L	Transport Refrigeration/Air Conditioning Lab	3
A	dditiona	al Required Trades & Service Occupations Courses	
EPT	101L	Emergency First Aid Response	1
EPT	213	Occupational Safety	3
Welding	Elective	e	
MATT	105	Basic Supporting Machine Tool Theory	2
MATT	105L	Basic Supporting Machine Tool Principles	
Compute	er Electi	ive (any department)	3–4
Commu	nication	s Course (oral communications elective)	3
ENG	101	College Writing	
English (Course ((writing elective)	
Math Ele			_
Physics I	Elective		
		ial Science Elective	
		Total	72-78

TRUCK DRIVING

Certificate Program Main Campus

The Truck Driving program provides students who are already licensed drivers the basic instruction required to become professional commercial truck drivers.

Students learn how to handle a tractor trailer safely and efficiently. The goal is to prepare students to earn the commercial driver's license needed to operate tractor trailers professionally.

The program is certified by PTDIA (Professional Truck Driver Institute of America). The certification agency requires students to purchase textbooks.

Entering students:	
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 driv-	
ing;	

☐ must have a valid New Mexico license authorizing operati	on 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 v	vho do not have a
regular primary care physician and do not have health in	surance may take
the physical at the T-VI Health Center and pay a fee of \$	25 to the cashier);
and	
☐ must be at least 23 years old.	
•	I

Each applicant is required to provide a certified copy of his or her New Mexico driving record for the past three years and a medical examiner's certificate signed by a physician.

Students must pay a non-refundable supply fee of \$210 prior to entering TRDR 101, \$105 prior to entering TRDR 102L and \$105 prior to entering 103L or \$420 prior to entering TRDR 105L.

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

Truck Driving Program

			Credit Hours
TRDR	101	Basic Operational Theory	6
TRDR	102L	Basic Operational Lab	4
		Advanced Operational Practices	
¹ TRDR	105L	Truck Driving Theory/Lab	13
		Employment Skills	
		Total	ļ 14

¹This course is designed for full-time students only and is equivalent to TRDR 101, 102L and 103L.

Course Descriptions

TRDR 101 Basic Operational Theory

6 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) This course provides instruction in the fundamentals of control systems, hours of service requirements, trip planning, public and employer relations, accident procedures, defensive driving techniques, written commercial driver's licensing needs and state and federal regulations governing the professional truck driver. Job seeking and retention skills are stressed.

TRDR 102L Basic Operational Lab

4 credit hours

(Pre- or corequisite: TRDR 101, CDL learner's permit or department approval) This hands-on course provides basic instruction in vehicle inspection, basic control, shifting, backing, coupling and uncoupling, hazard perception, visual search, speed and space

management, preventive maintenance and handling cargo. These activities are carried out in driving range conditions.

TRDR 103L Advanced Operational Practices

3 credit hours

(Prerequisite: TRDR 101, 102L or department approval) Students gain higher skill levels needed to cope with hazards of the roadway environment. Learning activities are conducted during day and evening hours on mountain grades, urban and rural roads, interstates and docking facilities.

TRDR 105L Truck Driving Theory/Lab

13 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) This course combines TRDR 101, TRDR 102L and TRDR 103L; see course descriptions above. (6 theory + 7 lab hours a week)

TRDR 170 Commercial Driver's License

2 credit hours

The commercial driver's license (CDL) short course meets requirements for licensing tests for all commercial drivers.

TRDR 171 Material Handling

2 credit hours

This theory/lab course provides instruction in basic forklift/hand truck operation and basic material handling. Instruction also covers forklift safety inspections and cost factors of improper handling. (1 theory +2.5 lab hours a week)

TRDR 172 Material Packaging

2 credit hours

This theory/lab course covers personal safety, cost efficient packaging and labeling techniques used in various manufacturing and related industries. (1 theory + 2.5 lab hours a week)

TRDR 296 Special Topics

1-6 credit hours

This course includes an in-depth study of problems and the advanced techniques that experts in the trucking industry use to solve them.

WELDING

Certificate Program Main Campus

The Welding program provides safety training and qualifies students for entry-level employment in the metals-processing industry. Specific welding qualification is the goal of each term.

Students study, practice and qualify in oxyacetylene welding. Instruction and qualification tests also are provided in shielded metal-arc welding (SMAW) and gas metal-arc welding (GMAW). Tests are given in pipe welding and gas ungsten-arc welding to acquaint the student with standard operating procedures for various qualifications. Students must be making progress on these tests to qualify for cooperative education. Instruction also is offered on welding fabrication and materials testing. Personal safety is stressed.

Students must be free of chronic respiratory diseases and have depth perception correctable in both eyes. Welding students must pay a tool fee of \$122 before entering the program.

Welding Program

Credit Hours			
2	Welding Metallurgy Theory I	101	WELD
2	Welding Mathematics I	102	WELD
	Welding Blueprint Reading I	103	WELD
2	Oxyacetylene Welding and Cutting	104L	WELD
	Oxyacetylene Brazing/Soldering and Fab	105L	WELD
2	Introduction to SMAW	106L	WELD
	Introduction to SMAW Qualifications	107L	WELD
2	and Fabrication		
2	Welding Metallurgy Theory II	111	WELD
2	Welding Blueprint Reading II	112	WELD
11	Welding Mathematics II	113	WELD
2	Advanced SMAW	114L	WELD
2	Introduction to GMAW and Fabrication.	115L	WELD
	Introduction to Gas Tungsten-Arc	116L	WELD
2	Welding/Fabrication		
2	Qualifications for SMAW and GMAW	11 7L	WELD
1	Employment Skills	177	VICA
2	Welding Metallurgy Theory III	201	WELD
	Welding Blueprint Reading III	202	WELD

WELD	203L	Basic Pipe Welding/Pipe Layout/Fabrication	4
WELD	204L	Advanced Gas Tungsten-Arc Welding/Fabrication	4
		Total	40

Course Descriptions

WELD 101 Welding Metallurgy Theory I

2 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) This course covers safety, general tools, welding materials, joints, manufacturing processes and properties of metals. Instruction is offered in the effects of temperature changes in welding, alloying elements, fluxes and gases for shielding.

WELD 102 Welding Mathematics I

2 credit hours

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) This course begins with basic arithmetic and continues with fractions, decimals, surface and direct measurements, graphs and charts.

WELD 103 Welding Blueprint Reading I

1 credit hour

(Prerequisite: appropriate scores on BOTEL and math placement test or equivalent or department approval) Instruction is offered in basic drawing interpretation, welding symbols, terminology and details of fittings as applied to the welding industry.

WELD 104L Oxyacetylene Welding and Cutting 2 credit hours

(Pre- or corequisite: WELD 101 or department approval) Topics include safety and use of general tools and oxyacetylene equipment. Instruction is provided in use of thermal cutting torches, techniques of brazing, various welding positions, tubing welding, welding of alloys and fusion welding.

WELD 105L Oxyacetylene Brazing/Soldering 2 credit hours and Fabrication

(Pre- or corequisite: WELD 101 or department approval) The focus is on uses and applications of brazing and soldering. Fluxes are applied to various metal and filler metals. Basic fabrication and repair problems are used for practical applications. Safety is stressed.

WELD 106L Introduction to SMAW

2 credit hours

(Pre- or corequisite: WELD 101 or department approval) This basic course in shielded metal-arc welding (SMAW) offers introductory instruction in electrical arc welding. Instruction is in beading, build-ups and various types of joints.

WELD 107L Introduction to SMAW Qualifications 2 credit hours and Fabrication

(Pre- or corequisite: WELD 101 or department approval) Instruction on procedure for arc welding qualifications is provided. AWS D1.1 Code is followed on A36 material with A501 electrodes. Basic fabrication and repair problems are used for practical applications.

WELD 111 Welding Metallurgy Theory II

2 credit hours

(Prerequisite: WELD 101 or department approval) This course provides instruction in filler metals, shrinkage and distortion, pre-heating and post-heating and difficulties and defects.

WELD 112 Welding Blueprint Reading II

2 credit hours

(Pre- or corequisite: WELD 103 or department approval) The student reads commercial construction and fabrication drawings. The class also covers detail and assembly drawings related to the welding field.

WELD 113 Welding Mathematics II

1 credit hour

(Pre- or corequisite: WELD 102 or department approval) This course provides instruction in area, perimeter and volumes of common structural shapes. Instruction is given in math to support Blueprint Reading II.

WELD 114L Advanced SMAW

2 credit hours

(Pre- or corequisite: WELD 111 or department approval) Advanced instruction in SMAW is offered. The student practices stringers, weaves and wash passes. Various electrodes and sizes are used.

WELD 115L Introduction to GMAW and Fabrication

2 credit hours

(Pre- or corequisite: WELD 111 or department approval) This course in mig welding provides instruction in spray and short-circuiting transfer. Fabrication and repairs are assigned for practical applications.

WELD 116L Introduction to Gas Tungsten-Arc Welding/Fabrication

2 credit hours

(Prerequisite: WELD 111 or department approval) Basic instruction in tig welding is provided on aluminum and stainless steel. Fabrication and repairs are assigned for practical applications.

WELD 117L Qualifications for SMAW and GMAW

2 credit hours

(Pre- or corequisite: WELD 111 or department approval) This course provides qualification procedures for arc and mig welding. The student qualifies in all positions with A36 material.

WELD 170 Welding Skills Improvement

3 credit hours

This theory/lab course includes instruction in safety practices, general tools and equipment, sources of heat, operation procedures, metals and their properties and applications of oxyacetylene and arc welding. (1 theory + 5 lab hours a week)

WELD 171 Advanced Welding Skills Improvement

3 credit hours

(Prerequisite: WELD 170 or department approval) Instruction is provided in advanced welding process. Mig and tig welding and other processes such as plasma arc, resistance,

flux core, carbon and submerged arc welding are included. (1 theory +.5 lab hours a week)

WELD 201 Welding Metallurgy Theory III

2 credit hours

(Prerequisite: WELD 111 or department approval) This course deals with welding problems and processes used for carbon steels, stainless steels, aluminum and pipe. The course also covers lab theory and information on AWS inspection.

WELD 202 Welding Blueprint Reading III

3 credit hours

(Prerequisite: WELD 112 or department approval) Topics include the development of templets, materials estimating, pipe layout and development, structural print reading, performance of pipe qualification tests, transferring of measurements from blueprints, design considerations and layout related to fabrication.

WELD 203L Basic Pipe Welding/Pipe Layout/Fabrication 4 credit hours (Pre- or corequisite: WELD 201 or department approval) 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. This course also deals with welding problems for carbon steels and their repairs.

WELD 204L Advanced Gas Tungsten-Arc 4 credit hours Welding/Fabrication

(Pre- or corequisite: WELD 201 or department approval) This course provides instruction on aluminum, stainless steel and carbon steel tig welding. Instruction is provided on AWS lab inspection and fabrication/repair.

WELD 296 Welding Special Topics

1-2 credit hours

(Prerequisite: department dean's approval) This flexible course is enables students currently in the welding trade to pursue specialized studies. This class also may be taken as an independent or guided study or as a refresher course to sharpen skills prior to certification or recertification exams.



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- Joe Webster, CMA, accounting instructor; B.S., University of Albuquerque, M.B.A., College of Santa Fe
- Maja Whittington, accounting instructor; B.A., M.B.A., University of Texas/El Paso
- Kim Wong, business administration instructor; B.S., Brigham Young University, M.B.A., J.D., Boston College, M.S., Massachusetts Institute of Technology
- Anna Wormald, administrative assistant instructor; B.A.S., M.A., University of New Mexico

HEALTH OCCUPATIONS

- John Blewett, RRT, RCP, respiratory care instructor; A.S., University of Albuquerque, B.U.S., University of New Mexico
- Teresa Brito-Asenap, program director, child development; M.A., University of New Mexico
- Marsha Brown, RN, nursing instructor; B.S.N., State University of New York at Albany, M.S.N., University of New Mexico
- Tamara G. Campbell, RN, nursing instructor; B.S.N., Adelphi University, M.S., Boston University
- Margaret Dahrling, RN, nursing instructor; B.S.N., University of New Mexico, M.S.N., University of New Mexico

- Charles Fatta, RRT, RCP, respiratory care instructor; B.A., University of New Mexico, M.B.A., University of Phoenix
- Pamela Fletcher, R.D./L.D., nutrition instructor; B.S., Michigan State University, M.A., University of New Mexico
- Charlene Fritts, RN, major instructor, pharmacy technician and perioperative nursing; A.D.N., University of Albuquerque, B.S., B.S.N., Graceland College, College of Saint Francis, M.A., Webster University
- Mary Gautreaux, RN, nursing instructor; B.S.N., University of New Mexico, M.S.N., University of Texas at El Paso

- Richard Gentile Jr., RRT, RCP, director of respiratory care programs; A.A.S., Milwaukee Technical College, B.S., Georgia State University, M.Ed., University of Houston
- Diane E. Jacobi, RN, nursing instructor; B.S.N., M.S.N., University of New Mexico
- Monya Kmetz, MT (ASCP), program director, medical laboratory technician; B.S., Eastern New Mexico University, M.A., University of New Mexico
- Marcia Lee, RN, nursing instructor; B.S., California State University, Chico, M.S., University of California, San Francisco
- Patricia Loflin, RN, nursing instructor; LPN, Mercedian School of Nursing, RN, Olympic College, B.S.N., Pacific Lutheran University
- Lorraine Lowen, RN, nursing instructor; A.A., A.A.S., Suffolk County Community College, B.S.N., M.S.N., State University of New York at Stony Brook
- Ruth McCall, MT (ASCP), CLS (NCA), major instructor, phlebotomy; B.S., University of Iowa
- Paulette McNeill, RN, nursing instructor; B.S.N., M.S.N., University of New Mexico
- Gloria Monek-Kovanis, RN; nursing instructor, B.S.N., Temple University, M.S.N., Gwynedd Mercy College

- Lori Ponge, RN, nursing instructor; B.S.N., University of Massachusetts
- Marie Rea-Trujil o, RN; nursing instructor, B.A., Mount St. Mary's College, California, M.S.N., University of California, Los Angeles
- Paul Sands, RRT, RCP, clinical coordinator, respiratory care programs;
 A.S., University of California at
 Davis, B.A. University of New
 Mexico
- Ann E. Sims, RN major instructor, nursing assistant; B.S.N., University of New Mexico
- Nancy Stephens, RN, nursing instructor; B.S.N., M.S., University of Maryland
- Patricia Stephens, RN, director of nursing programs B.S.N., University of Iowa, M.S., University of California, San Francisco, M.A., Denver Seminary
- Glenda Sterling, RN, nursing assistant instructor; diploma, Pennsylvania Hospital School of Nursing, B.S.N., M.S.N., University of New Mexico
- Anna Swan, RN, major instructor, health unit clerk program; B.S.N., University of New Mexico
- Carol Winkles, RN, nursing instructor; B.A.N., Gus avus Adolphus College, M.S.N., University of Wisconsin-Eau Claire

TECHNOLOGIES

- Karl Asendorf, electronics technology instructor; A.A., Georgia Military Institute; B.S., Southern Illinois University
- David Bleacher, business computer programming technology instructor; A.B., University of California
- William Boettcher, electronic engineering technology instructor; B.S., M.S., University of Wisconsin
- Bruce Bush, electronics technology instructor; B.S., Southern Illinois University
- David Clauss, electronics technology instructor; B.A., University of New Mexico
- David Conger, business computer programming technology instructor; B.S., Brigham Young University
- Steven Fraker, architectural/engineering drafting technology instructor, B.S., Eastern New Mexico University; M.A., University of New Mexico
- Hayward Franklin, business computer programming technology instructor; B.A., American University; Ph.D., University of Arizona
- Joel Gellman, laser electro-optic technology instructor; B.A., Canaan College
- Judith George, architectural/engineering drafting technology instructor; B.A., Carleton College
- Beverly Gersema, business computer programming technology instructor; B.S., Chapman University
- James Green, electronics technology instructor; A.S., State Technical Institute at Memphis; B.S., University of New Mexico

- Gordon Hall, registered architect, architectural/engineering drafting technology instructor; B.F.A., M.Arch., University of New Mexico
- Ted Harris, electronics technology instructor; B.G.E., University of Nebraska, M.A., Ball State University
- James Hart, electronics technology instructor; B.U.S., University of New Mexico
- Raymond Isengard, electronics technology instructor
- Paul Kirkpatrick, architectural/engineering drafting technology and computer programming technology instructor; B.U.S., University of New Mexico
- Alfred E. Lauber, registered architect, registered landscape architect, architectural/engineering drafting technology instructor; B. Arch., University of Oregon; M.A., University of Wyoming
- Donald Lentz, business computer programming technology instructor; B.A., New Mexico State University; B.S.N., University of New Mexico
- Aaron Loggins, electronics technology instructor; B.S., U.S. Military Academy; M.S., AFIT, Wright-Patterson A.F.B.; M.B.A., University of New Mexico; Ph.D., Texas Tech University
- Fabian Lopez, electronics technology instructor
- Thomas Lucero, registered architect, architectural/engineering drafting technology instructor; F.B. Arch., M.A., University of New Mexico
- Earnestine Mitchell, business computer programming technology instructor; B.A., Grambling State University of Louisiana

- Walter Rice, electronics technology instructor; A.A.S., Capitol Radio Engineering; B.S., New Mexico State University; M.A., University of New Mexico
- Laurence Rose, laser electro-optic technology instructor; B.S., New Mexico Highlands University; M.S., University of New Mexico
- Richard Schutzberger, design drafting engineering technology instructor; B.S.E.E., M.S.E.E., University of New Mexico
- Daniel Shaffer, design drafting engineering technology instructor; A.S., New Mexico Junior College; B.S., Kansas State College; M.A., University of New Mexico; M.S., Colombia Pacific University
- Susan Sujka, math/electronics technology instructor; B.S., New Mexico Institute of Mining and Technology

- Theodore Trujillo, electronics technology instructor; B.S., University of Albuquerque
- Wesley Wesbrooks, electronics technology instructor, B.S., Southern Illinois University
- Michael White, electronics engineering technology instructor; B.S., M.S., Texas Tech University
- Elizabeth Wilkinson, design drafting engineering echnology instructor; B.A., University of New Mexico
- Mary Jane Willis, electronics technology instructor; B.S., Northwestern State University of Louisiana
- Charles A. Young, business computer programming technology instructor; B.S., University of Arizona; M.A., Webster University

TRADES & SERVICE OCCUPATIONS

- Alain Archuleta, electrical trades instructor; B.S., Southern Illinois University
- 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
- David Bergsland, commercial printing instructor; B.F.A., University of Minnesota
- Noel Binford, construction management instructor; B.S., University of New Mexico

- Richard Birkey, administrative assistant; B.S., University of Illinois; M.A., 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, truck driving instructor; B.S., Southern Illinois University
- Glen Bugge, automotive technology instructor; B.S., Illinois State University
- Darcy Buland, quantity foods instructor; B.S., Mankato State University

- Kayleigh Carabajal, baking instructor; B.A., University of Albuquerque
- Mary Chambers, fire science instructor, B.S., Stanford University; M.A., Duke 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
- Frederick Downum, construction management instructor; B.S., Northern Arizona University
- Douglas D. Dunning, quantity foods instructor; A.S., Northern Oklahoma College; B.S., M.S., Oklahoma State University
- John P. Gabaldon, electrical trades instructor; B.S., University of New Mexico
- Rudy Garcia, food service management instructor; B.U.S., University of New Mexico
- Scott Henrickson, automotive technology instructor; B.U.S., University of New Mexico
- Dave Hinchcliffe, carpentry instructor; B.S., Southern Illinois University
- Joyce Jones, quantity foods instructor; B.S., Southern Illinois University
- Robert Kho, automotive technology instructor; B.A., California State University
- Barry King, environmental technology instructor; B.S., M.S., University of Houston
- Samuel E. Lovelette, electrical trades instructor; B.S., Ferris State College
- James Marshall, air conditioning, heating and refrigeration instructor; B.A., M.S., Ph.D., Southern Illinois University
- Ronald Marshall, commercial printing instructor; B.S., Pittsburgh State University

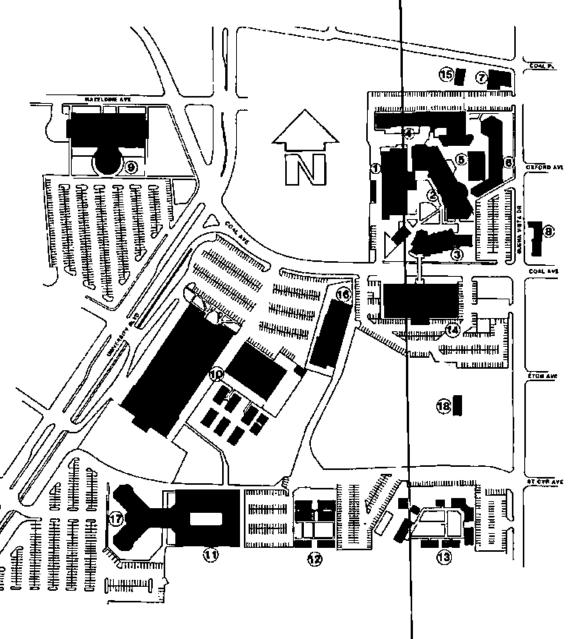
- Ted Modica, diesel equipment technology instructor; A.S., State University of New York; B.S., Southern Illinois University
- Thomas Morris, physical fitness instructor; B.S., M.S., University of Illinois
- Larry Mounger, small engine technology instructor; B.S., Southern Illinois University
- John Murray, air conditioning, heating and refrigeration instructor; B.A., University of New Mexico
- Paul Jay Musselman, air conditioning, heating and refrigeration instructor; A.S., B.S., Northern Arizona University
- Walter Niederberger, criminal justice instructor; B.A., M.S., San Jose State University
- Simon Nunez, Jr., plumbing instructor; B.S., Western New Mexico University
- John Pierce, carpentry instructor; B.A., University of New Mexico
- William Riley, criminal justice instructor; B.S., University of Albuquerque
- Harold Senke, environmental technology instructor; A.S., B.S., New Mexico State University
- Wayne Sprong, environmental technology instructor; A.A., Allan Hancock College, B.A., State University of New York College of Technology; M.P.A., Golden Gate University
- Richard Warren, machine tool technology instructor; B.S., University of New Mexico
- Alton Whittier, welding instructor
- Charles R. Yonker, machine tool technology instructor; A.S., Moraine Valley Community College; B.S., Chicago State University



CAMPUS DIRECTORY

Main Campus	Montoya Campus
Switchboard/Locator 224-3000	Switchboard/Locator 224-3000
Admissions 224-3160	Admissions 224-3160
Admissions TTY 224-3193	Adult Education 224-5575
Adult Education 224-4266	GED, ESL 224-5575
Bookroom 224-4272	Learning Lab 224-5582
Learning Lab 224-4280	Bookstore
ESL 224-4266	Business Occupations Learning Center
GED 224-4268	
Bookstore 224-4490	Cashier
Business Occupations Learning Center	Continuing Education Studies
224-3840	
Cashier 224-4767	Financial Aid 224-5656
Financial Aid 224-3090	Instructional Programs/Counselors
Health Center 224-3080	Developmental Studies 224-5681
Institutional Research 224-3018	Arts & Sciences 224-5782
Instructional Programs/Counselors	Business Occupations 224-5599
Administration 224-3321	Library 224-5721
Developmental Studies 224-3931	Security 224-5751
Arts & Sciences 224-3561	Special Services
Business Occupations 224-3811	Student Job Placement 224-5507
Health Occupations 224-4111	Testing 224-5761
Technologies 224-3340	Tutorial/Learning Center 224-5990
Trades 224-3711	•
Library 224-3274	
Outreach & Transition 224-4300	Rio Rancho/Intel Campus
Security 0 or 224-4632	-
Small Business Development Center	all offices 892-7113
224-4246	
Special Services 224-3259	Child Care
Special Services TTY 224-4739	
Student Activities 224-3239	Tres Manos Child Development Center848-1310 or
Student Job Placement 224-3060	224-3090
Student Records 224-3202	22.000
Testing 224-3244	
Tutorial/Learning Center 224-4306	

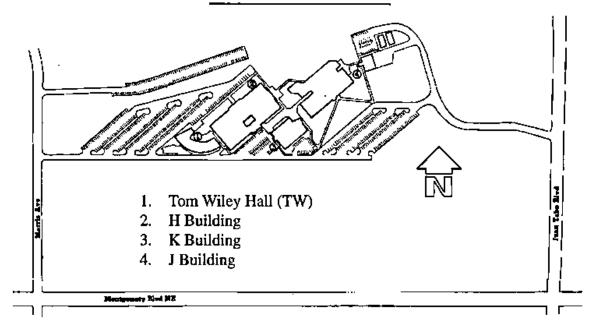
MAIN CAMPUS



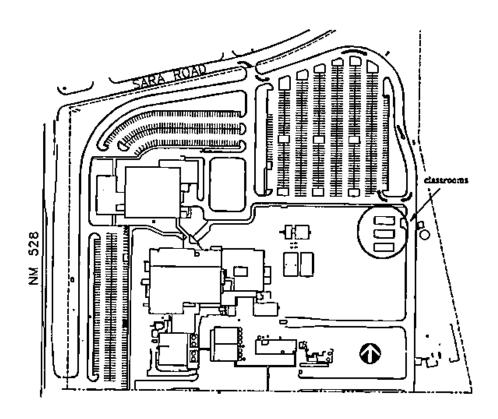
- 1. West Building (W)
- 2. Administration Building (A)
- 3. South Building (S)
- 4. North Building (N)
- 5. Main Building (M)
- 6. East Building (E)
- 7. North Temporary Building (NT)
- 8. Student Job Placement Services
- 9. Smith Brasher Hall (SB)

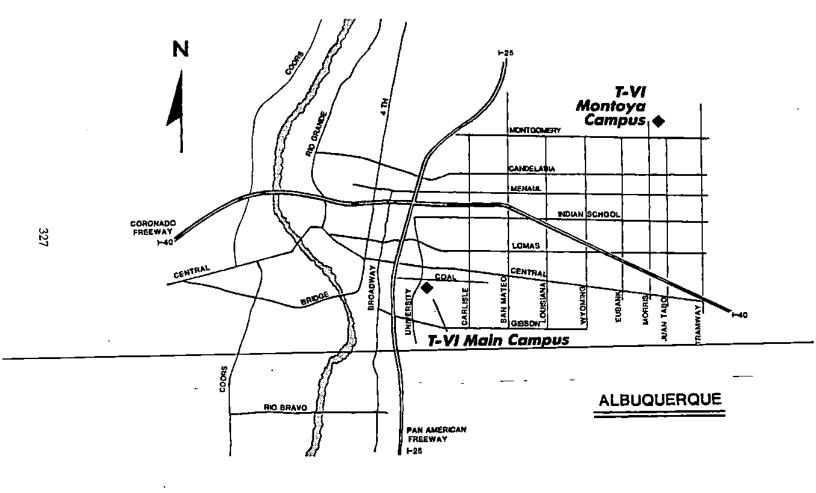
- 10. Ted Chavez Hall (TC)
- 11. Preparatory Building (P)
- 12. South Temporary Buildings (ST)
- 13. Buena Vista Buildings (BV)
- 14. Jeannette Stromberg Hall (JS)
- 15. Personnel Office
- 16. Science Laboratory Building (L)
- 17. Max Salazar Hall (MS)
- 18. Tres Manos Child Development Center

MONTOYA CAMPUS



RIO RANCHO/INTEL CAMPUS





INDEX

absences 41 academic calendar 10 academic honesty 53 academic records 45 academic regulations 40-46 academic standards 43; adult education 56 academic year 40 accounting courses 67, 100, 111, 118 Accounting program 8, 103-108 accreditation 8 adding courses 22 address change 46 Administrative Assistant 8, 108–113 admission 14-21. See also individual programs; adult education 55 Admission and Registration 14-31 Adult Education 54-61 Adult Education Learning Centers 48, 59 advanced placement 156, 164, 168, 184 Advanced Placement Exams 20 advertising 122 Air Conditioning, Heating and Refrigeration 234-238

Α

algebra 60, 66, 86, 87 American College Test (ACT) 18, 50, 70 anthropology 73 applying to T-VI 16 apprenticeship programs 228–230 Architectural/Engineering Drafting Technology 188-196 arithmetic. See math art 74 Arts & Sciences Department 70-97 Associate Degree Prep Program 15 astronomy 74 attendance 41; adult education 56 audiovisual 49 auditing courses 42 Automotive Body Repair 238-241, 297 Automotive Technology 8, 242-245, 297

В

Baking 246–248 basic skills 54, 56–58, 63–69 biological and physical sciences 72 biology 75–77 books. See textbooks bookstores 51 bus passes 52 business: communication 67, 111, 117; computers 118; law 119 Business Administration 8, 113 **Business Computer Programming** Technology 196–203 **Business Occupations Department 99-**141 **Business Occupations Learning Centers** 100-103 C calculators 69, 100, 111 calculus 87-88 cancelling enrollment 22 Carpentry 248–251 certificate/degree status 15

Certified Professional Secretary 108 challenge exams 19 chemistry 77–78 child care 34, 52 Child Development 149-152 classification of students 40 College Level Examination Program (CLEP) 21 commercial carpentry apprenticeship 228

Commercial Printing 251-255 communication 67-68, 78-79 computer assisted drafting (CAD) 188, 192–193, 194, 195 Computer Assisted Instructional

Centers 57 computer languages: ADA 201; ANSI COBOL 199; Assembler 201; BA-SIC 200; C 200; C++ 202; RPG 201; Unix 201

computer science 72, 80 computer software: dBase

100, 137; desktop publishing

137; information processing

112, 125; Lotus 100, 137; Microsoft Word 1B6; Windows 137; word prodessing 100, 111, 137; WordPerfect 100, 136 computer-aided design (CADD) 207 computers: crime 53; DOS 100, 137; in law practice 132; literacy 225; microcomputers 100, 112, 118, 137, 200, 201; networks 138, 204, 214, 221; operating systems 201; programming 68, 139, 196-203, 213, 220 concurrent enrollment 15 construction. See Architectural/ Engineering Drafting Technology Construction Technology 256-260 consumer electronics/communication continuing education credit 19 cooperative education. See individual programs corequisite 22, 70 counseling 47 course fees 27 course load 22 course numbering 40 Court Reporting 12\(\beta\)-127 credit hour 40 credit/no credit 42 Criminal Justice 94-95, 260-263 culinary apprenticeship 228

data processing. See Business Computer Programming Technology Delta Epsilon Chi 122 dental services 51 Design Drafting Englneering Technol-

Culinary Arts 263–264

ogy 8, 204-210 Developmental Studies Department

63-69 Diesel Equipment Technology 264-267, 297

1,0

disabilities, services for people with 5, 9, 35, 47, 49 disruptive behavior policy 53 drafting 68, 188-196, 204-210 dropping courses 23

\mathbf{E}

economics 80-81 Electrical Trades 268–272 electrical trades apprenticeship 229 electronics 68 Electronics Engineering Technology 8, 210-214 Electronics Technology 214–223 Emergency Medical Technician 144-145 English 64, 81–82, 100 English as a Second Language 58–59 Entrepreneurship 127 Environmental Technology 272–275 equal opportunity policy 9 equipment fees 27 estimated expenses 31

F

fees 26; adult education 56 filing 100 financial aid 3, 32–39, 64 fine arts and foreign languages 72 Fire Science 277–278 fire sprinkler apprenticeship 229 Food Service Management 279–280 French 83

G

GED 50, 54, 56-58; en Español 58; pre-test 56, 59 general contractor preparation 192 general education 9, 71 geography 84 Governing Board 6, 307 grade appeal 43

grades 23, 36, 41–43. See also individual programs graduation 44 grammar 57, 66, 82 grants 33

H

Hablamos Español 54–55, 58
health care 51; health insurance 51
Health Occupations Department 143–
185
Health Unit Clerk 152–153
high school students 15, 99
history 85
honor roll 43
honors courses 70, 84
human relations 118
humanities 72, 86

Ī

identification cards 40
incomplete grade 42
Instructional Media Resources 49
instrumentation and control technology
187
international business 115
internship. See individual programs

J

job placement 50, 60, 116, 119, 233

K

keyboarding 67, 101, 110-111, 125

$\overline{\mathbf{L}}$

lab fees 27 laser electro-optics 215 Legal Assistant Studies 128-133 legal terminology 126 liberal arts 70, 71 libraries 48 Licensed Practical Nurse Refresher 145–146 literature 82–83 loans 33–34, 37

M

Machine Tool Technology 280–284 machine transcription 100, 113 major 23 management 118. See also Pre-Management Manufacturing Specialist 224-225 marketing 119 math 49, 57, 66, 72, 86-87, 100, 111, 160, 191, 196, 199, 204, 250, 291, 304 math anxiety 60, 69 Math Applications Lab 64 Mechanical Technology 284–287 Medical Laboratory Technician 8, 154–158 medical terminology 100, 125 medical transcription 100 merchandising 115 Metals Technology 287-289 metric system 60 Microcomputer Management Specialist 134-138 microprocessors 220 mission statement 7 music 88-89

N

name change 46
non-degree status 15
non-traditional credit 19
Nursing 8, 165–171
Nursing Assistant 159–160
Nursing Home/Home Health Attendant
146
nutrition 89

0

occupational support courses 67–68 off-campus courses 55, 57 office technology 108 Outreach & Transitional Programs Department 54–61

P

parking 52 Perioperative Registered Nurse Specialist 147–148 Pharmacy Technician 172-173 philosophy 89-90 Phlebotomy 174-175 physical fitness 262 physics 90-91 placement tests 16 Plumbing 289–292 plumbing apprenticeship 230 political science 92 Practical Nursing 8, 161-164 Pre-Management | 38-139. See also Pre-Management prerequisites 17, 22, 70 Presbyterian Hospital School of Practical Nursing 161, 163 probation 43 process control 215 proofreading 100 psychology 92–93 purchasing 119

Quantity Food Preparation 293-295

벅

reading 57, 60, 66 real estate 115, 140 records 45; adult education 56 refunds 26 Registered Nurse Refresher 148–163 registration 22–23; adult education 55 religion 94 remodeling 232 repeating courses 43 residency 24–25 Respiratory Care programs 8, 176–185 Respiratory Therapist 181–185 Respiratory Therapy Technician 177–180 robotics 223

<u>S</u>

sales 122 Sales and Cashiering 141 schedule of classes 22 scholarships 35 school year 6, 40. See also academic calendar science 67 semiconductors 219 sheet metal apprenticeship 230 shorthand 101, 111-112, 125 shuttle bus 52 skills improvement 68-69 Small Business Development Center 99 small business management 115 Small Engine Technology 295-297 smoking policy 53 social and behavioral sciences 72 Society of Manufacturing Engineers 204 sociology 94-95 soldering 221, 225 Spanish 49, 96 Special Services 3, 47 spelling 57, 64, 101 "stepbacks" 23

student activities 51
Student Handbook 3
Student Job Placement Services 3, 50
Student Services 47–53
study skills 60, 69
substance abuse policy 52
supply fees 27
surveying 195
suspension 43

T

T-VI orientation 59 Technologies Department 187-225 telecommunications 218 testing 49 textbooks 51. See also individual programs; adult education 56 tourism and hospitality 116 Trades & Service Occupations Department 227 transcripts 46; adult education 56 transfer of credit 18-19 Transportation Technology 297–300 trigonometry 87 Truck Driving 8, 300-302 tuition 25, 70 Tutorial/Learning Centers 8, 48 typing 101

1

U

University of New Mexico 63, 108, 140, 149, 155, 181, 185

V

Veterans Administration 35. See also individual programs Vocational Industrial Clubs of America 227, 232 weather 6
Welding 303–306
withdrawing from T-VI 23
word processing See computer
software
work study 34

W

writing 57, 65, 130
Writing and Reading Assistance Center
64



333

Recycled Paper