## 2001-02 COURSE CATALOG

## Albuquerque Technical Vocational Institute •Volume $36 \cdot$ •uly 2001

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## ABOUT THIS CATALOG

## Main Campus

525 Buena Vista SE Albuquerque, NM 87106-4096

Joseph M. Montoya Campus<br>4700 Morris NE<br>Albuquerque, NM 87111-3704

## Rio Rancho Campus

4705 Sundt Rd. NE
Rio Rancho, NM 87124
South Valley Campus
5816 Isleta SW
Albuquerque, NM 87105
Web Site: http://www.tvi.cc.nm.us Switchboard: 505-224-3000

The TVI Catalog is a student's official guide to programs, courses and policies of Albuquerque Technical Vocational Institute.

The TVI Catalog is a summary of information of interest to students; it is not a complete statement of programs and policies. Other important information is published in:

- the Schedule of Classes;
- the Student Handbook;
- the Financial Aid and Scholarship Guidebook; and
- handbooks published by instructional departments and other offices.
Students are responsible for complying with the provisions of these documents.

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

Information in the Catalog is subject to change.
This Catalog is available in alternative formats from the Special Services office at Main Campus. It is published on the TVI home page, www.tvi.cc.nm.us.

Now in its fourth decade, Albuquerque Technical Vocational Institute is an accredited community college offering courses in a variety of occupational, college transfer and adult/developmental education subjects. In 2001-02 TVI's programs include:
■ occupational certificates in 50 business, health, technologies and trades occupations, as well as short-term occupational courses;
■ associate degrees in 42 occupational fields and liberal arts;

- college transfer: courses in pre-management, pre-engineering, other occupational subjects and 28 liberal arts disciplines transferable for freshman and sophomore credit at four-year institutions; and
■ adult/developmental education: basic skills (including English as a second language and GED exam preparation) and remedial, preparatory and developmental classes for students preparing to meet admission requirements at TVI or other institutions.
Other TVI programs include customized training and assistance to small business (through the Workforce Training Center, 224-5200), workshops and support for learners over 50 (the Emeritus Academy, 224-5506) and concurrent enrollment for high school students (Recruitment Office, 224-3162).

TVI is accredited to grant certificates and associate of applied science, associate of arts and associate of science degrees by the Higher Learning Commission of the North Central Association of Colleges and Schools. In addition, specific programs have accreditation or approval by appropriate agencies (see page 48).

## TVI Governing Board

Ruth L. Connery, Chair
Richard Barr, Vice Chair
Carmie Lynn Toulouse, Secretary
Charles J. Haycox
Penelope S. Holbrook
Blair L. Kaufman
Robert P. Matteucci
Michael J. Glennon, President

## Mission, Vision, Values, Goal

## Mission

Albuquerque Technical Vocational Institute (TVI) promotes and provides higher education, skill development and workforce training relevant to contemporary needs within the district and the state of New Mexico.

## Vision

Albuquerque Technical Vocational Institute is a progressive community college where students achieve goals and meet change.

## Values

Albuquerque Technical Vocational Institute values people, excellence, integrity, diversity, responsiveness, results and the community.

## Goal

The overall goal of the Albuquerque Technical Vocational Institute is to raise educational levels and to exceed student, workforce and community expectations.

To achieve this, TVI will:

- Encourage and support students by offering the best opportunities for occupational and workforce training, certificates, associate degrees, transfer credit, skill development and continuous learning.
- Respond quickly to community needs by promoting and maintaining program quality and relevant curricula to support economic development.
- Encourage and support faculty and staff in their roles and offer opportunities for growth, professional development and recognition.
■ Meet change through innovation and technology.
- Foster communication, cooperation and collaboration within TVI and between and among other educational institutions as well as the community.
■ Ensure that TVI is welcoming, friendly and service-oriented to attract and retain students.
■ Provide affordable and accessible education.
- Respect and promote diversity.
- Develop, improve and maintain physical resources at TVI to facilitate learning.
- Maintain fiscal integrity and responsibility.
- Provide accountability through an ongoing system of evaluation, analysis and adjustment.

Authorized by the New Mexico Legislature in 1963, the Albuquerque Technical Vocational Institute was approved by district voters in 1964 to provide adults with skills necessary for success in the world of work. The first nine classes, for 155 students, were held in the summer of 1965 in surplus barracks and a vacated elementary school.

From the first, TVI's priority has been job training, broadly defined to include preparatory work, skill improvement for adults, vocational courses for high school students and, liberal arts and college transfer. Job training programs are offered in business, health, technologies and trades subjects, with emphasis on up-to-date, hands-on skills needed by local employers. Internships, co-op programs and apprenticeships are also available.

TVI was accredited by the North Central Association of Colleges and Schools in 1978. The first college-prep course, MATH 100, was offered in 1985. Degreegranting power was approved for TVI by the Legislature in 1986, beginning the transition to a community college. By the late 1980s, liberal arts was not only TVI's fastest growing component but also an increasingly important part of occupational instruction, and the University of New Mexico had arranged to offer all its remedial courses through TVI.

Until 1979, TVI was part of the Albuquerque Public Schools, with the APS Board of Education serving as the TVI Governing Board. The first election for an independent TVI board was held in September 1979, following approval by the Legislature. In 1994, the Legislature approved districting the Governing Board.

## TVI TODAY

With an enrollment of about 22,000, TVI is the second largest postsecondary institution in New Mexico. 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 Campus, the South Valley Campus and at the University of New Mexico, as well as various off-campus sites. A Northwest Side facility is under construction.

TVI's classrooms, libraries and laboratories are modern and comfortable. Each student has access to state-of-the-art equipment, especially computers. TVI programs, facilities and services are accessible to the disabled.

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

TVI's Governing Board members are elected by voters in seven geographical districts within the Institute district, which includes all of Bernalillo County and part of Sandoval County.

Funding for TVI programs and most construction and equipment comes from a property tax levy in the Institute district and annual appropriations by the New Mexico Legislature. Tuition and fees are moderate, and financial aid is available to many students. Private contributions through the TVI Foundation are increasing every year.

TVI's academic year is divided into three terms: fall (begins in August), spring (begins in January) and summer (begins in May). Short sessions and non-traditional schedules, including weekend classes, are available for some programs and courses. Most programs admit beginning students each term.

## ASSESSMENT

TVI, in compliance with North Central Association's Higher Learning Commission, regularly conducts assessment of its instruction. Assessment of student academic achievement is an effort in each of the instructional departments which evaluate their success in fulfilling both course and program objectives. Toward this end, students may be requested to participate in forums, portfolios, testing or surveys that help the departments measure student success or satisfaction.

Specifically, in attempting to measure student academic achievement, instructional departments are trying to better understand those circumstances that lead to student success and mastery of course objectives and program goals. In applying measurement tools, departments gain knowledge and experience that help them continue to do things well or improve instruction where weaknesses are found.

## GENERAL EDUCATION

Albuquerque Technical Vocational Institute, a community college, provides basic, occupational and general education for a population that 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 include 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 occupational 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.

## DISTANCE LEARNING

An increasing number of TVI credit courses are offered in innovative distance-learning formats designed to overcome barriers of time or space. Some courses are available through correspondence, some are taught over the Internet, some are broadcast on television and others use audio and video links to two or more classrooms. Printed materials and interaction with the instructor (in person, by telephone or via electronic mail) are available. Fees are charged for Distance Learning courses (see page 16). More information about Distance Learning is available at 224-3317 and on the home page at
http://planet.tvi.cc.nm.us/distancelearn

## WORKFORCE TRAINING

TVI's Workforce Training Center was founded in March 1996 to foster and enhance economic growth and development in New Mexico. Organized under the Division of Instructional Services, the Workforce Training Center serves the greater Albuquerque metropolitan area as well as other regions throughout the state.

The center serves a diverse group of individuals and organizations, including:

- employers seeking to improve the skills of their workforce;
- public and private agencies, particularly those assisting welfare-to-work recipients, dislocated workers and adults;
- professional associations needing training for members who are preparing for certification or licensure;
- adults wanting to upgrade their job skills; and
- entrepreneurs, including small business owners and others considering starting a business.

The center offers six distinctive services:

1) performance enhancement consulting;
2) customized training;
3) open-enrollment workshops and seminars;
4) short-term intensive training
5) assessment services; and
6) business consulting and resource referrals through the Small Business Development Center, which is designed to help "grow" small business in New Mexico.
The Workforce Training Center's services-provided at reasonable cost-are developed as needed throughout the year and on a rapid-response basis. Services may be provided at the employer's place of business or at the center's new training facility in the heart of Albuquerque's growing I-25 industrial corridor. For information, call 224-5200.

## OVERVIEW OF STUDENT CODES AND POLICIES

As a student, you are an active and vital part of the TVI educational community; a community dedicated to protecting the freedom of individuals to inquire, study, evaluate, question, and gain new levels of knowledge and understanding. As with other communities, TVI has put specific policies and expectations in place that define acceptable behavior necessary to both protect individual freedoms and ensure responsible citizenship. As a member of the TVI community, it is your responsibility to understand, and adhere to, the codes and policies that govern and prescribe acceptable student behavior. Essential components of these policies and codes are discussed briefly below. However, students should review and become familiar with the full content of each policy and code found in the "Student Policies and Codes" section of this catalog.

## STUDENT CODE OF CONDUCT

The Student Code of Conduct defines the behavioral expectations of TVI students. It also explains the student discipline process and the procedures that are followed when a student violates the established Code of Conduct. A complete copy of the Code of Conduct is included in the section of this catalog titled, "Student Codes and Policies." All students are expected to adhere to the Student Code of Conduct and should therefore familiarize themselves with its contents.

In addition to the Student Code of Conduct, students should also know and understand the rules and regulations that apply to TVI classrooms and laboratories, and the policy statements that govern specific aspects of the TVI learning and working environment. These policies and rules are inherently tied to the Code of Conduct, but are defined separately because in most cases, they apply to all members of the TVI Community - not exclusively students. As with the Student Code of Conduct, the full text for these rules and policies is found in the section "Student Codes and Policies" beginning on page 222.

## POLICIES

## Equal Opportunity Policy

Albuquerque Technical Vocational Institute affirms that it will not discriminate on the basis of gender, race, color, national origin, ethnicity, religion, age, disability,
sexual orientation or marital status in any of its policies, practices or procedures in accordance with applicable federal, state and local laws, nor will it condone any acts of illegal discrimination by its employees. This provision includes, but is not limited to, employment, admissions, testing, financial aid and educational services. The Institute confirms that the above provision by its reference to applicable federal, state and local laws prohibits and condemns any retaliation of any kind against any employee or student engaging in the exercise of free speech or in activities protected by federal, state or local laws.

Any student who wants to file a complaint or who has questions about illegal discrimination, retaliation or harassment based on these laws should contact the Dean of Student's Office 224-4342.

## Americans with Disabilities Act Policy

In accordance with the Americans with Disabilities Act (ADA), Section 504 of the Rehabilitation Act of 1973, and other applicable law TVI takes appropriate action to ensure that its programs and services are readily accessible to qualified individuals with disabilities. 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 programs or activities.

If a student wishes to discuss a possible accommodation or has concerns about TVI's compliance, he or she should contact A. Paul Smarrella in Special Services, 224-3259.

## Technology Use Policy and World Wide Web Policy

These policies establish the guidelines by which TVI computer, network and telecommunication systems can be used and define what is acceptable when designing home pages on TVI's systems. The prevailing concept is that technology use on campus should be for instruction, learning, academic research and administrative purposes only. This complete policy can be found on pages 227-228 and at www.tvi.cc.nm.us.

## Substance Abuse Policy

It is TVI's belief that abuse of alcohol or drugs impairs functioning, disrupts the learning process, and poses a potential threat to the safety and well being of the TVI community. This policy statement (page 229) supports

TVI's commitment to maintaining a drug and alcohol free campus.

## Sexual Harassment Policy

Sexual harassment is defined and the Institute's intolerance for this behavior is explained on page 230. Students at TVI are expected to be respectful of others regardless of gender.

## RULES GOVERNING CLASSROOMS AND LABS

## Academic Integrity

Students are expected to conduct themselves at all times with the highest academic standards. Cheating, falsifying work or plagiarism will not be tolerated. Students committing these offenses are subject to penalty ranging from a " 0 " on the assignment or test, to an " $F$ " for the course. Students with repeat offenses are subject to disciplinary action up to and including expulsion.

For a full explanation of the procedures that are followed if academic dishonesty is suspected, please refer to page 230 of the Student Codes and Policies section of this catalog.

## Children on Campus

Children (or other non-students) are not allowed to accompany adults to class. All children who are under age 15, and are on TVI's campus, must be accompanied by an adult at all times.

## Electronic Devices

All cellular telephones, pagers and beepers must be turned off or switched to silent or vibration mode. Electronic entertainment devises are to be turned off and headphones removed.

## Dress

Students are expected to dress appropriately on campus at all times.

## Remember, each of these rules and policies is explained more fully in the STUDENT POLICIES AND CODES section of this catalog.

## STUDENT COMPLAINT PROCESS

Albuquerque Technical Vocational Institute (TVI) representatives and students should always strive to work well together. Occasionally, however, students may encounter difficult situations with TVI representative(s) (faculty or staff). Students are encouraged to discuss these difficulties with the person involved. Other resources available to students include instructional departments (directors and associate deans) and advising and counseling services.

All efforts should be made on the part of both TVI representatives and students to informally resolve issues. However, if the issues cannot be resolved informally with the parties listed above, the student may submit a written complaint by following the formal complaint process:

1. The student files a written complaint with the department within ten (10) working days of discussing the difficult situation with involved TVI representative(s).
2. The complaint is investigated and processed according to department procedures. The department determines a resolution within ten (10) working days and notifies involved parties in writing.
3. If the student is not satisfied, the student contacts the Dean of Students within three (3) working days of receiving the department decision. Documents submitted by the student include the written student complaint, the department decision memo, and documents submitted to support the complaint or decision.
4. The Dean of Students reviews the documentation (written student complaint, department decision memo, and supporting documentation) and any new information within three (3) days, then determines whether justification exists for further consideration of the complaint by an appeal committee or an appropriate Vice President.
5. If determined further consideration is warranted, the Dean of Students will define the next step (establish/facilitate an appeal committee or refer appeal to Vice President) and forward all documentation appropriately.
6. The final decision(s) made by the appeals committee or a Vice President will be communicated in writing to the student and to all involved parties.

## 1999-2000 GRADUATE JOB PLACEMENT

Additional information is available from Student Job Placement Services.

| Business Occupations |  |  |  |  | Employed in Training-Related Job |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accounting, Certificate ............................... 2 | - | - | - | 2 | 2 | - | 100\% | 2 |  |  |
| Accounting, Degree .................................. 41 | 12 | 1 | 5 | 23 | 21 | 2 | 91\% | 19 | 12.17 | \$24,666.72 |
| Administrative Assistant, Certificate ............. 1 | - | - | - | 1 | 1 | - | 100\% | 1 |  |  |
| Administrative Assistant, Degree ............... 33 | 7 | 1 | 2 | 23 | 22 | 1 | 96\% | 21 | 10.88 | \$22,635.02 |
| Bookkeeping, Certificate ............................ 8 | 1 | 2 | 3 | 2 | 2 | - | 100\% | 2 | 10.50 | \$21,840.00 |
| Business Administration, Certificate ............. 9 | 2 | 2 | 2 | 3 | 3 | 0 | 100\% | 3 | 9.30 | \$19,344.00 |
| Business Administration, Degree ............... 32 | 5 | 4 | 1 | 21 | 21 | - | 100\% | 21 | 9.94 | \$20,678.40 |
| Business Graphics/Communication Certificate .... 1 | 1 | - | - | - | - | - |  |  |  |  |
| Business Graphics/Communication Degree ... 5 | - | 2 | - | 3 | 1 | 2 | 33\% | 1 |  |  |
| Court Reporting, Degree ............................ 6 | - | - | 1 | 5 | 4 | 1 | 80\% | 3 | 15.60 | \$32,441.07 |
| Financial Services Degree .......................... 1 | - | - | - | 1 | 1 | - | 100\% | 1 |  |  |
| Food Service Management, Certificate .......... 4 | 1 | - | 1 | 2 | 2 | - | 100\% | 2 | 8.32 | \$17,305.60 |
| International Business, Certificate ............... 1 | 1 | - | - | - | - | - |  |  |  |  |
| International Business, Degree .................... 2 | - | - | 1 | 1 | 1 | - | 100\% | 1 | 11.54 | \$24,003.20 |
| Legal Assistant Studies, Degree ................. 30 | 8 | 3 | 3 | 16 | 16 | - | 100\% | 16 | 12.00 | \$24,963.47 |
| Microcomputer Management, Certificate ...... 4 | 3 | - | 1 | 1 | - | - |  |  |  |  |
| Microcomputer Management, Degree ......... 26 | 7 | 0 | 2 | 17 | 15 | 2 | 88\% | 14 | 11.47 | \$23,867.05 |
| Office Assistant, Certificate ......................... 8 | 2 | 1 | 5 | - | - | - |  |  |  |  |
| Pre-Management, Degree ......................... 57 | 9 | 2 | 32 | 14 | 14 | - | 100\% | 14 | 13.68 | \$28,449.78 |
| Stenotranscription Certificate ...................... 1 | - | - | - | 1 | - | 1 |  |  |  |  |

Health Occupations

| Child, Youth \& Family Devel, Degree .......... 7 | 2 | - | - | 5 | 5 | - | 100\% | 4 | 9.27 | \$19,281.60 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Clinical Laboratory Assistant, Certificate ... 10 | 4 | 1 | - | 5 | 5 | - | 100\% | 5 | 10.70 | \$22,249.07 |
| Healthcare Technician, Certificate ............... 8 | - | 1 | - | 7 | 7 | - | 100\% | 7 | 9.62 | \$20,009.60 |
| Health Unit Clerk, Certificate .................... 33 | 2 | 3 | 6 | 22 | 21 | 1 | 95\% | 22 | 8.75 | \$18,204.16 |
| Medical Lab Technician, Degree ................. 6 | 1 | 1 | - | 4 | 4 | - | 100\% | 4 | 12.40 | \$25,792.00 |
| Nursing, Degree .................................... 102 | 14 | 1 | 1 | 86 | 86 | - | 100\% | 87 | 16.20 | \$33,689.34 |
| Nursing Assistant, Certificate ..................... 29 | 4 | 2 | 5 | 18 | 18 | - | 100\% | 18 | 8.37 | \$17,411.33 |
| Pharamacy Technician, Certificate ............. 13 | 4 | - | 1 | 8 | 7 | 1 | 88\% | 7 | 8.55 | \$17,784.00 |
| Phlebotomy, Certificate ............................ 52 | 26 | 4 | 5 | 17 | 15 | 2 | 88\% | 14 | 9.06 | \$18,834.40 |
| Practical Nurse, Certificate ...................... 20 | 7 | - | 2 | 11 | 11 | - | 100\% | 11 | 11.74 | \$24,413.53 |
| Respiratory Therapist, Degree ................... 18 | 1 | 1 | - | 16 | 16 | - | 100\% | 15 | 14.77 | \$30,717.70 |
| Surgical Technician, Certificate ................. 16 | 2 | - | 2 | 12 | 12 | - | 100\% | 12 | 10.65 | \$22,154.60 |

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## FALL TERM 2001

First day of instruction August 27
Labor Day holiday ..... September 3
Last day to register
Full term classes September 4
Short session classes See Schedule of Classes
Midterm/graduation applications due ..... October 16
Last day to change grading options; last day to withdraw
Full term classes ..... November 16
Short session classes See Schedule of Classes
Thanksgiving holiday (no classes; offices closed) ..... November 22-25
Last day of the term (may vary; consult department) ..... December 13
Fall grades available on STARS December 19
SPRING TERM 2002
First day of instruction January 7
Last day to register
Full term classes ..... January 14
Short session classes See Schedule of Classes
Martin Luther King Day (no classes; offices closed) January 21
Presidents' Day (no classes; offices open) February 18
Midterm/graduation applications due ..... February 28
Last day to change grading options; last day to withdraw
Full term classes March 29
Short session classes See Schedule of Classes
Graduation ..... April 19
Last day of the term (may vary; consult department) ..... April 25
Spring grades available on STARS ..... May 1
SUMMER TERM 2002
First day of class ..... May 13
Last day to register
Full term classes ..... May 20
Short session classes See Schedule of Classes
Memorial Day holiday (no classes; offices closed) ..... May 27
Midterm/graduation applications due ..... June 21
Independence Day holiday (no classes; offices closed) ..... July 4
Last day to change grading options; last day to withdraw
Full term classes ..... July 19
Short session classes See Schedule of Classes
Last day of the term (may vary; consult department) ..... August 3
Summer grades available on STARS ..... August 9

## Admissions Office: 224-3160

Albuquerque Technical Vocational Institute has an open admission policy that provides individuals the opportunity to enroll in the Institute's certificate or degree programs as well as individual courses. Students are considered for admission to TVI without regard to gender, race, color, national origin, religion, age, disability, sexual orientation or marital status. It is the policy of the Institute not to discriminate on the basis of sexual orientation, marital status or ancestry.

TVI's academic year is divided into three terms that begin in August, January and May. Students are urged to apply for admission at least two months before registration begins and may apply for any term up to one year in advance.

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 and enrollment requirements upon the student's return.

A student's admission status is determined by the student's primary goal for taking courses at TVI. Admission technicians, academic advisors and counselors are available to assist students with identifying and/or meeting their educational goals.

## GENERAL ADMISSION REQUIREMENTS

Any person wishing to apply for admission to TVI must meet one of the following criteria:
■ be at least 18 years of age; or
■ have a high school diploma from a U.S. high school ${ }^{* *}$ or foreign high school; or
■ have a General Educational Development (GED) diploma; or

- have completed the requirements of a home-based school program; or
■ qualify under TVI's Concurrent Enrollment (see page 12) or Early Admission programs for high school aged students.
TVI does not issue I-20's (student visas) in order for international students to attend. Individuals in the United States on approved visas may be eligible to
attend TVI. Eligibility is based on the visa type (per INS regulations) and the visa's expiration date. For further information, please contact the Admissions Office.


## GENERAL PROGRAM PLACEMENT REQUIREMENTS

Any person wanting placement into a TVI certificate and/or degree program (major) must meet one of the following criteria:
■ have a high school diploma from a U.S. high school**; or

- have a General Educational Development (GED) diploma; or
■ have an associate, baccalaureate or higher degree from a regionally accredited post-secondary institution in the United States; or
- have, on file at TVI, Accuplacer or ACT (English, math and reading), or SAT (verbal and math) placement scores dated within the last 5 years.

Note: The above listed criteria may be different from that used to establish financial aid eligibility. Federal "Ability to Benefit" requirements refer only to financial aid eligibility. Some programs have additional requirements (see program descriptions).

## Certificate/Degree Status

Certificate/degree students have chosen a program of study and intend to earn a certificate or degree from TVI.

Applicants may be denied admission to a program only where health or physical condition can be dangerous to the applicant or others.

TVI offers the following types of certificate and degree programs (see pages 37-45 for complete list):

- Occupational Certificate and Associate of Applied Science (A.A.S.) Degree Programs: These programs prepare students to enter either skilled or paraprofessional occupations or to upgrade workplace skills and knowledge. These programs are not intended to transfer to bachelor's degree programs, although certain courses may be accepted at some institutions.

[^1]■ Associate of Arts (A.A.) Degree Programs: These programs are designed for transfer into a bachelor's degree program in liberal arts, social or behavioral sciences or a professional field with such disciplines as its base.

## - Associate of Science (A.S.) Degree Programs:

 These programs are designed for transfer into a bachelor's degree program in a technical, medical or professional field with such disciplines as its base.■ Verification of Completion: A document issued by an instructional department upon successful completion of a group of occupational courses, to confirm that specific skills have been attained.

## 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 TVI 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.

Students who enroll non-degree in certain occupational courses may be able to receive a verification of completion certificate (see above).

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

## Concurrent Enrollment

The purpose of concurrent enrollment is to give high school students the opportunity to take TVI courses and earn TVI credit while still enrolled in high school. Students who wish to obtain an early start on their post high school education are encouraged to take part in this program.

Qualified high school sophomores, juniors and seniors may enroll in non-developmental credit courses at TVI in the fall, spring and summer terms. Students enroll in non-degree status and earn college credit as well as credit toward high school graduation.

Students enrolled in the program are subject to all TVI regulations.

TVI has concurrent enrollment agreements with Albuquerque Public Schools, Belen High School, Bernalillo High School, Jemez Valley High School, Moriarty High School, Rio Rancho High School, Socorro Consolidated Schools, To'Hajilee High School and several private schools.

Interested students should visit their high school counseling office, the APS Career Enrichment Center or any TVI admissions office.

## APPLYING TO TVI

1. Applicants must complete an Application for Admission or Returning Student Update form. Forms are available in the Admissions Office at all TVI campuses. Forms may be mailed back to the Main Campus Admissions Office ( 525 Buena Vista SE, Albuquerque, NM, 87106).
Returning Students: Any student who has previously attended TVI in certificate/degree or nondegree status and has been out for at least one term (summer term excluded) must complete a Returning Student Update form. Students who have been absent for more than one year will be required to complete a new Application for Admission.
New and Transfer Students: Any student who has never attended TVI in certificate/degree or nondegree status must complete an Application for Admission.
2. Students who have previously attended another college should have an official transcript from each college sent to the TVI Records Office for an evaluation of possible transfer credit (see below).
3. Most students are required to take TVI's course placement test, Accuplacer (see below).
4. Students should meet with an academic advisor or counselor at any TVI campus to discuss program selection and/or course placement.

## Placement Tests

To ensure that students are prepared for the courses they want to take, many courses have entry requirements called prerequisites that must be met prior to registering. Prerequisites may be met with approved scores on the placement test, Accuplacer (taken at any TVI Assessment Center), or on ACT or SAT tests, by transfer of credit from another institution or by successful completion of a specific course. (Also see pages 13 and 26.)

Students may be exempt from Accuplacer testing if they:

- hold an associate degree or higher from an institution in the United States (these students may take courses for which ENG 101 and RDG 100 are prerequisites); or
- are non-degree students not enrolling in ENG or MATH courses and not registering for more than six credit hours per term (does not apply to concurrent enrollment students); or
- can provide proof of successful completion of previous college-level math and/or English courses.


## TRANSFER OF CREDIT

Traditional Credit: Credits earned at other institutions by certificate or degree-seeking students at TVI 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 TVI 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 the TVI'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; demonstration of competence is required for all transfer credit that is at least 10 years old. Courses will be evaluated according to the occupational program to be followed at TVI and may be substituted for TVI requirements as approved by the department dean.
2. Remedial courses and upper-division courses are not generally accepted.
3. Students may appeal the decision on acceptability of liberal arts transfer credit. The student should contact the Advisement Office to begin the appeal process.
Non-Traditional Credit: Students may be allowed to establish credit based on prior training. Each instructional department has established specific criteria for acceptance of occupational credit. Students interested in this option should contact their department office.

Continuing Education Credit: Current students who completed credit courses in TVI's Continuing Education Division prior to the winter 1991 term may apply to have that credit transferred to their TVI 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.

## EXAMINATION CREDIT

TVI Challenge Exams: Challenge examinations are offered for some TVI courses. Exams are available to applicants and currently enrolled students who wish to establish TVI credit for prior education, training and/or experience. The fee for most exams is $\$ 15$. The following restrictions apply:
■ A student may attempt a challenge exam only once per course.

- A student may not take a challenge exam if, within the last 10 years, he or she completed the course at any school.
- A grade of CR will be recorded upon the student's completion of TVI credit coursework in the same or subsequent term.
■ Courses successfully challenged may count toward graduation, but not the residency requirement.
■ Challenge exam credit may not be accepted by other postsecondary institutions.
AP/CLEP Exams: Students may earn credit through Advanced Placement (AP) and College Level Examination Program (CLEP) tests. Details are available in the Advisement office.


## COURSE SUBSTITUTIONS AND WAIVERS

A course for which a student has already established credit may substitute for another course if allowed by the department offering the course for which substitution is requested. If the substitute course has fewer credit hours, the difference must be made up. A required course may be waived if the student has earned credit in a similar but not equivalent course and/or through training or work experience. The student must make up the waived credit hours.

## Registration Office: 224-3214

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. Individuals may not "sit in" on classes for which they are not enrolled.

Registration for new and continuing students begins approximately two months before the start of a term. Registration information is mailed to continuing students; all other students are given registration information at the time of admission.

Registration continues through the sixth day of the term for full-term and 12-week classes and through the third day for short-session courses.

## REGISTERING AT TVI

1. Obtain a Schedule of Classes, which is published prior to each term and is available in the registration offices at all campuses and on TVI's web site at www.tvi.cc.nm.us. The schedule includes registration information and instructions, course dates and times, and payment information.
2. Academic advisement is strongly recommended for all students before registering for classes. Academic advisors and counselors (in the student services areas of all campuses) provide assistance with course selection and placement.
3. New student orientation sessions inform new and returning students about TVI's services, programs and registration process. Students who have never attended a college or university in the United States are required to attend a TVI orientation before registering for classes. Information about orientation sessions is in the Schedule of Classes.
4. Register for classes using the step-by-step instructions in the Schedule of Classes.
5. Pay tuition and fees. Upon registering for courses, students receive a registration invoice. Charges are based on the student's residency classification for tuition purposes, the number of credit hours and the type of courses (see page 16). 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.

## COREQUISITES AND PREREQUISITES

Pre- and corequisites are listed in course descriptions and are subject to change with each new Catalog. It is the student's responsibility to meet the pre- and/or corequisites in effect for the term in which a course is taken, regardless of the Catalog under which the student entered or will graduate. Students may be
barred from enrolling or may be disenrolled if pre- or corequisites are not met.
Corequisite: A corequisite is a course which is either recommended or required to be taken in combination with another course. If a course with a required corequisite is taken for audit, the corequisite also must be taken for audit. When a course which has a required corequisite is dropped, the corequisite must also be dropped.

Prerequisite: A prerequisite is a requirement which must be successfully completed before a student may enroll in a course. A student who receives a W, AU, I, NC, PR, D or F as a final grade may not enroll in any class for which the former is a prerequisite. A recommended prerequisite is one which is strongly suggested for successful completion of the course but is not required.
Most entry-level courses have prerequisites for math, English or reading. Students who have completed course prerequisites may be required to provide proof through transcripts or test scores. Students who do not meet course prerequisites may enroll in preparatory courses in Developmental Studies.
Alternatives or equivalents to meet entry-level course prerequisites are published in the Schedule of Classes. Accuplacer, ACT, SAT and ASSET scores may not be more than five years old.

## REGISTRATION INFORMATION

Adding, Changing, Declaring Majors: Students may add, change and/or declare a major (program) at any time during the term in which they are enrolled. 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 the advisement office prior to submitting an application for graduation.
Adding Courses: Most courses may be added or sections changed through the sixth day of full-term and 12-week classes and the third day of short-session classes. Students may enter most open-entry courses through the tenth week of a full term and the eighth week of the 12 -week classes. Registration deadlines and instructions are in the Schedule of Classes.

Cancellation of Enrollment Before Term Begins: If a student is not able to attend TVI when planned but has registered for classes, the student must cancel his or her registration at any registration office or through STARS before the beginning of the term. All fees are returned if registration is canceled before classes begin.

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 TVI grade point average of 2.5 , and
- have no grade lower than C in the previous term, and
- secure permission from the Advisement Office.

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

Course Repetition Limit: A course may be repeated twice, regardless of grade option. A student wishing to repeat a course more than two times must obtain approval from the department dean's office. Topics, problems, internship and cooperative education courses, as well as physical fitness courses and full-term courses dropped prior to the 15th day of the term, are exempt from the course repetition limit.

Dropping Courses or Withdrawing: Full-term courses may be dropped through the 12th week of the term, 12 -week summer courses through the 10 th week and short-session courses through the mid-point of the course. Full-term courses dropped on or before the 15th day of the term (including Saturdays) do not appear on the student's TVI transcript. A W grade will appear on the student's record for full-term and 12week courses dropped after the 15th day and for all short-session courses dropped on or after the first day of the session.

Students should not assume they will be dropped from their courses for nonattendance. Students who have not officially dropped a course will receive a final grade in the course. Drop and withdrawal deadlines are in the Schedule of Classes.

Grade Options: Students must select a grade option when registering for class (see page 20).

Permission to Enroll: Students may enroll in some courses only by permission of the instructor or program director. Forms are available in the department offices and most advisement offices. A Permission to Enroll does not constitute a waiver of a course, grant credit for another course or allow a course to be overfilled.

Stepups/stepbacks: Students may, with department approval, step up or step back into most developmental courses through the second 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 up or step back into a self-paced, developmental math course through the tenth week of a full term and the eighth week of the 12 -week session or term. Students who are having difficulty in a class and are considering this option should contact the instructor or an academic advisor.

## RESIDENCY CLASSIFICATION FOR TUITION PURPOSES

The New Mexico Commission on Higher Education establishes residence requirements for tuition purposes. 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 new or returning student with questions about his or her residency status should contact the Admissions Office.

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. Information on the number and type of required overt acts is available in the Admissions and Records Offices.

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 in-state residency status to be denied or revoked.

## Other Residence Regulations

The spouses and dependents of persons 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.

Active participating members of the New Mexico National Guard 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 Immigration and Naturalization Service 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 provide evidence of formal retirement shall not be required to complete the 12 -month durational requirement. They must, however, satisfy the other requirements of residency.

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

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

## TUITION AND FEES

Checks submitted for tuition and fees must have the student's ID number (usually the Social Security number) written on them. If the student prefers not have the ID number on the check, he or she should pay in cash or by credit card. The Institute bills authorized agencies that have agreed to pay a student's training expenses.

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

Tuition rates for 2001-02 (subject to change without notice) are:

## Arts \& Sciences Courses

New Mexico residents: 1 to 11 credit hours and more than 18 credit hours: $\$ 34.60$ per credit hour; 12 to 18 credit hours: $\$ 415.20$
Non-residents: 1 to 11 credit hours and more than 18
credit hours: $\$ 96.00$ per credit hour; 12 to 18 credit
hours: $\$ 1,152.00$
Occupational and Developmental Courses
New Mexico residents: none
Non-residents: 1 to 11 credit hours: $\$ 96.00$ per credit
hour; 12 to 18 credit hours: $\$ 1,152.00$

Senior Citizen Discount: Senior citizens qualify for a reduced tuition rate of $\$ 5$ per credit hour, up to six credit hours per term. The tuition discount applies only to Arts \& Sciences courses. To qualify, the student must be age 62 or older prior to the beginning of the term and must be classified as a New Mexico resident for tuition purposes.

To receive the senior citizen discount, eligible students must go to the Records Office at Main Campus or the Admission Office at the Montoya Campus and complete a Senior Citizens Tuition Discount form. The discount form must be approved by the tenth day of the term.

Note: The discount does not apply to Adult Education classes, workshops and other non-credit courses, or to occupational or developmental courses.

## FEES

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

Accuplacer Retest Fee: Students choosing to take the Accuplacer placement exam more than three times within a year will be charged $\$ 2.00$ per subject area, payable in advance of testing.

Administrative Service Fee: students do not pay this $\$ 10$ fee; rather, it is charged to third-party agency agencies that sponsor students.

Distance Learning Fee: One to four credit hours: \$30 per hour. Five or more hours: \$120 per course.

Educational Service Fee: This fee of $\$ 75$ is charged on third-party agency contracts requiring additional services; students do not pay it.

## GED Exam Fee: $\$ 15$.

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

TVI Challenge Exam Fee: $\$ 15$ (may vary).
Registration Fee: There is a $\$ 22.25$ registrationprocessing fee required each term (of that, $\$ 2$ is collected on behalf of the Student Association of TVI.).

Transcript Fee: Students may request up to three official TVI transcripts, free of charge, per academic year. Additional copies will be issued for a fee of $\$ 3$ per copy, payable in advance. A fee of $\$ 10$, payable in advance, will be charged for TVI transcripts faxed within the continental United States.

Refunds: Tuition, course fees and the registration fee are refundable only if TVI cancels a class or if the student withdraws by the refund deadline printed in the Schedule of Classes or if, after payment of nonresident tuition/fees, the student's status is changed to resident. The Health Occupations uniform fee is refundable if the student does not receive the uniform. Refund requests may be made at the Cashier's Office.

0ur Mission: To Provide prompt, accurate, and courteous financial aid assistance. Although primary responsibility for educational costs rests with the student and his or her family, TVI, the federal government and the state of New Mexico all contribute to assist students pursue a higher education. Students applying for financial aid should complete a Free Application for Federal Student Aid (FAFSA) available at all four TVI campuses.

Please refer to the TVI Financial Aid and Scholarship Brochure or the Federal Guidebook as well as the TVI web site www.tvi.cc.nm.us for more information on financial aid. The TVI and Federal Guidebook are available at all Student Services locations.

The following is a summary of available financial aid programs and policies.

## GENERAL ELIGIBILITY REQUIREMENTS

To receive financial aid a student must:
■ Be a U.S. citizen or an eligible non-citizen.

- Be a graduate of a U.S. high school or foreign high school or GED graduate.
■ Not be default of student loan or repayment.
■ Maintain satisfactory academic progress defined by federal regulations.
- Enroll in eligible courses defined by the institution. A list of ineligible courses is available by calling 224-3090 or visiting the FAO web site @ www.tvi.cc.nm.us.
- Enroll in an eligible program of study.
- Students who have not earned a GED or high school diploma may be eligible for financial aid if the student earns a passing score on the two components of ACT or the three components of the Accuplacer as required a Department of Education in one sitting. If all three scores are not met in one sitting, the student must retest on all parts again.
■ Not be in default on any federal educational loans or owe a refund on a grant.
- Sign a statement of educational purpose, stating that the money will go toward educational purposes only.


#### Abstract

AWARDS All financial aid awards are based on information provided by the student, availability of funds and on general eligibility requirements. Any award may be revised based on changes in enrollment, cost of attendance, family contribution or failure to meet


satisfactory academic progress. Withdrawals or reductions in enrollment may affect an award or any future awards. The regularly scheduled date of disbursement of financial aid checks are each Friday except on the initial dates of disbursement which are posted and included with the students' award letter.

## GRANTS

The Federal Pell Grant provides funds to undergraduate students without bachelor's degrees. Awards range between $\$ 400$ and $\$ 3,750$ per academic year, depending on a student's enrollment status, cost of attendance and family contribution.

Students who receive Federal Supplemental Educational Opportunity Grants (SEOG) must demonstrate exceptional financial need and the lowest expected family contribution.

State Student Incentive Grant (SSIG) recipients must demonstrate financial need, be New Mexico residents and enrolled at least half time.

Eligible State DayCare Grant recipients must be New Mexico residents, enrolled at least half time and have daycare expenses.

Student Incentive Grant (SSIG) recipients must demonstrate financial need, be New Mexico residents and enrolled at least half time. Eligible state Child Care Grant recipients must be New Mexico residents, enrolled at least half time and have child care expenses.

## LOANS

Federal Subsidized and Unsubsidized Stafford Loans, Nursing Student Loans for Service and Federal PLUS loans require separate applications. Before applying for a loan, a student must first complete the Free Application for Federal Student Aid (FAFSA). The Federal Perkins Loan is a low interest (5 percent) loan for both undergraduate and graduate students who demonstrate exceptional financial need. Loan applications are available from participating banks or at the Financial Aid Office at Main and Montoya campuses. Students receiving a loan must be enrolled for six credit hours. Congress also establishes loan limits that may be prorated depending on a student's classification. All first-time borrowers must attend an entrance interview with a financial aid officer before loans are processed. Students who meet Subsidized Stafford Loan eligibility requirements may borrow up to $\$ 2,625$ per year as first-year students and $\$ 3,500$ per year as second-year students.

## WORK-STUDY

Federal Work Study (FWS) and New Mexico Work Study are subsidized work programs. Work Study jobs require a separate application, which is available at all campuses. Available jobs are posted at Main and Montoya campuses. Work study employees cannot work during regularly scheduled classes nor may they work more than 40 hours per two-week period. Work Study students are paid bimonthly at a rate of $\$ 5.15, \$ 5.50$ or $\$ 6.00$ per hour, depending on the job. They must also carry six credit hours and maintain financial aid satisfactory academic progress while they are employed. TVI also offers a Student Employment program. Students interested in TVI's student employment program must be enrolled in at least six credit hours, maintain a cumulative GPA of 2.0 and complete a Free Application for Federal Student Aid (FAFSA).

## SCHOLARSHIPS AND OTHER AID

There are state, institutional and federal scholarships. Amounts, deadlines and eligibility requirements vary from scholarship to scholarship. For more information, students should contact the Financial Aid Office or visit our Web Site @ www.tvi.cc.nm.us.

Assistance is also available through the Veterans Administration, the New Mexico Division of Vocational Rehabilitation and the Job Training Partnership Act. Students interested in obtaining aid from these organizations should contact the agencies or the Financial Aid Office.

Eligible TVI students with children between the ages of 3 and 5 are eligible to apply for Child Care through the Tres Manos Child Development Center. The Center provides low-cost child care for TVI students. Applications are available through the Financial Aid Office.

## CHECK RELEASE

Main Campus students may pick up checks between 8:00 am and 6:00 p.m. at the Cashier's Office in the Student Services Center. Montoya Campus students may pick up checks between 9:00 am and 5:00 p.m. at the Cashier's Office in Tom Wiley Hall. A valid picture ID must be presented to pick up a check. If a check is not picked up within 7 days of the release date it will be mailed to the students' current address. Eligible students receive award letters through the mail, notifying them of scheduled check release dates.

Non-compliance with federal regulations or TVI policy-such as unsatisfactory academic progress, insufficient enrollment or an ineligible major or class-will prevent a check from being released. See General Eligibility Requirements below for other criteria that may stop a check from being released.

Students who apply for a student loan after the regularly scheduled release date will receive their checks in about six weeks. Stafford Loans require two
scheduled disbursements within a given term. All loan recipients must have their loan check authorized for release by the Financial Aid Office before they can pick up their checks at the Cashier's Office. Main Campus students should pick up their loan checks at the Cashier's Office at the Student Services Center; Montoya Campus students at the Cashier's Office at Tom Wiley Hall.

## FINANCIAL AID SATISFACTORY ACADEMIC PROGRESS (SAP)

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 at the end of each term to determine eligibility for the next term. All terms of attendance are reviewed, including periods in which the student did not receive financial aid. Transfer credits are taken into account when satisfactory progress is reviewed for students enrolled in either one of the following programs of study: Pre Engineering, Liberal Arts, Pre-Management and Elementary Education.
1.Qualitative Progress: Students must maintain a cumulative grade point average of at least 2.0 (a C average). Grade point values are: $\mathrm{A}=4.0, \mathrm{~B}=3.0$, $\mathrm{C}=2.0, \mathrm{D}=1.0, \mathrm{~F}=0$. Grades of $\mathrm{I}, \mathrm{CR}, \mathrm{PR}, \mathrm{NC}, \mathrm{W}$, AU and TR are not calculated in the GPA. In the case of a repeat course, only the higher grade is calculated into the grade point average.
2.Completion Rate: Students must complete a minimum of 70 percent of all course work (registered credit hours) attempted at TVI. Any course with a grade of withdraw (W), incomplete (I), progress (PR), audit (AU) or No Credit (NC) is not considered completed course work. Repeated courses are included in the calculation. Courses dropped before the 10th day of class are not counted as attempted credit hours.
3. Maximum Time Frame: Students must complete their program within 150 percent of the credit hours required by the program. Students who have reached the maximum allowable time will be suspended from receiving financial aid. Preparatory hours are excluded from this calculation. Repeated courses and transfer credits accepted by TVI towards a PreEngineering, Liberal Arts, Pre-Management and Elementary Education degree are included in the student's maximum time frame calculation. Courses dropped before the 10th day of class are not counted against the calculation.

## Financial Aid Probation

Recipients are placed on one term of financial aid probation after the first term they fail to meet the qualitative or completion rate components of satisfactory academic progress. Students will receive federal student aid during the probationary term.

If a student does not meet all the standards outlined above by the end of the probationary term, the student will be suspended from receiving further financial aid.

## Financial Aid Suspension

Students are suspended from receiving financial aid if they do not meet satisfactory academic progress standards by the end of their probationary term. Students on financial aid suspension will not receive any form of federal or state financial aid (grants, loans, work study).

## Conditional Probation

Students who would otherwise be suspended as a result of not meeting the cumulative Standards of Satisfactory Academic Progress are eligible for Conditional Probation. Students are placed on Conditional Probation if they are able to demonstrate academic progress during the last term attended by earning a 2.0 grade point average and completing 70 percent of the coursework attempted.

## The Appeal Process

Students who would like to appeal for reinstatement of their financial aid must submit an appeal form and all required documentation to the Financial Aid Office. A committee will review the appeal and may grant reinstatement of financial aid for one term based on mitigating circumstances that directly contributed to deficient academic performance. Appeals are evaluated on a term-by-term basis.

## FINANCIAL AID AUTHORIZATION FORM

Students who sign the Financial Aid Authorization Form are authorizing TVI to credit their account for tuition, fees, bookstore costs and any other related charges that they may incur while attending TVI. All charges are automatically deducted from the students' first source of financial aid. If financial aid is canceled for any reason or if it does not cover all charges, or if the charges are not deducted from financial aid, students are responsible for paying in full any charges owed TVI. Students who fail to pay these charges by midpoint of the scheduled semester in which the expenses were incurred will have a hold placed on their registration and academic records. They must also pay all costs necessary for collections including legal costs and attorney fees plus interest on the balance at the statutory rate.

Under federal regulations, you may cancel this authorization at any time. Forms to cancel this authorization must be filled out and submitted in person to the Financial Aid Office located at 900 University SE. Albuquerque, NM 87106.

## REPAYMENT OF FEDERAL FUNDS

Return to Title IV: If a recipient of Title IV funds withdraws from an institution during a payment period or period of enrollment in which the recipient began attendance, the institution must determine the amount of Title IV funds the student has earned as of the date of withdrawal. Return to Title IV applies to students who received federal student aid, attended TVI and withdrew before they attended 60 percent of the enrollment period or term. The federal refund policy applies to all students who withdraw, not just to students who provide written notice of withdrawal.

Repayment of Title IV funds: If a student receives a federal disbursement for living expenses and withdraws from school, he or she may be required to repay a portion of the amount received if the amount received is greater than the cost of living expenses at the time of withdrawal. See the Financial Aid Guide for details.

## ACADEMIC POLICIES*

## DEFINITION OF TERMS

Academic Year: The academic year is divided into three terms: fall, spring and summer.

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.

A student who misses the first class meeting and has not contacted the instructor, or who misses two consecutive class meetings in the first week may be dropped from the cours. A student with excessive absences may be dropped from a course. (See the Schedule of Classes for additional information regarding attendance requirements.) If a student is dropped from a course for non-attendance he or she is also dropped from corequisite courses. Students should not assume they will be dropped automatically.

A student who is dropped by an instructor for nonattendance is notified by mail. The instructor's decision is final, but if the student disagrees with the action he or she must contact the instructor within two working days of receipt of the notification.

Additional information about attendance is contained in the Health Occupations handbook and in individual course syllabi.

Classification of Students: The following are standards for the academic classification of students:
$\square$ freshman: A student who has completed fewer than 30 credits at TVI
■ sophomore: A student who has completed 30 or more credits at TVI
$\square$ part-time: A student carrying fewer than 12 credit hours per term
$\square$ full-time: A student carrying 12 or more credit hours per term
Course Numbering: Courses numbered 1 through
100 are developmental or preparatory; 101 through 299 are intended for freshman and sophomore-level students.

Credit Hour: Credit in courses offered by TVI is awarded in terms of hours of credit hours. 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 1,875 minutes of instruction per term. For transfer purposes, one TVI
credit hour generally equals one semester credit hour at other institutions.
Identification Cards: Each student enrolled at TVI 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.

## GRADES

Final grades are recorded on the student's TVI transcript and calculated in both a term grade point average (GPA) and a cumulative GPA. (See page 21 for information on the recording of course drops and withdrawals on the student's TVI transcript.)

The grades awarded in all courses represent the quality of work done. Their meaning in most courses is as follows:
A Excellent; four points per credit hour.
B Above average; three points per credit hour.
C Average; two points per credit hour.
D Below average; one point per credit hour.
F Failure; zero points per credit hour.
CR Credit; grade is equivalent of at least a grade of C but is not computed in the grade point average.
NC No Credit; grade is not computed in the grade point average.
PR In Progress; course work not completed; grade is not computed in the grade point average.
AU Audit; recorded for completion of enrollment in an audited course; no credit is earned.
I Incomplete; grade is not computed in the grade point average (see Incomplete Grade Assignment and Removal).
W Withdrew; used for student, instructor and administrative withdrawals.
TR/ Credit for transfer coursework and
TRD non-traditional credit; grade is not computed in the grade point average.

## 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: $\mathrm{A}=4, \mathrm{~B}=3, \mathrm{C}=2, \mathrm{D}=1, \mathrm{~F}=0$. For example, a four-credithour course with a grade of A carries 16 quality points. Then the total number of quality points earned is

[^2]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 TVI 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 Adult \& Developmental Education courses for audit.

Students who enroll for audit are expected to attend all class sessions but are not required to complete assignments. However, students changing from audit to any other grading option are responsible for having met all course requirements to date, as stated in the course syllabus.

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 and cannot be used to meet prerequisite or corequisite requirements.

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 $C R$ 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 $C R$ 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.

Open-Entry, Open-Exit: Students may register for courses that have flexible entry and/or exit points with the open-entry, open-exit grading option. Depending on the course, the student may receive a traditional (A,B,C,D,F), credit/no credit (CR/NC) or an in progress (PR) grade.

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 no case is an I to be used to avoid a failing grade or to allow extra time to complete work normally expected.

Removal of an I grade can only be 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. Only the higher grade will be used to calculate the GPA when letter grades (A,B,C,D,F) are recorded for both the original course and each course repetition. This policy applies to courses with identical course abbreviations and numbers except for the following: topics, independent study, internship and cooperative education courses, and when course abbreviations and numbers change as a result of new programs and/or program revisions. It 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 with questions concerning a final grade in a course must contact the instructor within the first week of the following term. If the instructor is not available the student should contact an instructional administrator in the department in which the course was taken. If an error is identified, the instructor or instructional administrator will submit a grade correction to the Records Office.

If the matter is not resolved at the department level, the student may formally appeal the final grade by submitting a Grade Appeal form (available in instructional offices) to the office of the dean of students. The appeal must be made by the end of the fourth week of the term following the term of the grade in question. If the dean of students determines that the appeal has merit to be heard, a review panel will be convened within three weeks of the appeal submission.

The decision of the review panel will be final.
A student who fails a course after being unable to officially withdraw or drop due to circumstances beyond his/her control (for example, hospitalization or military service) may appeal in writing to the director of enrollment services/registrar. The appeal, along with supporting documentation, must be submitted by the end of the following term.

## ACADEMIC RENEWAL

Students who return to TVI after an extended absence may petition to remove complete academic terms from future degree and GPA considerations. This policy allows TVI students who had previously experienced academic difficulty to make a fresh start. Approval of the petition is based on the conditions listed below. If approved, Academic Renewal will result in a new grade point average.

1. To be eligible for Academic Renewal the student must have been absent from TVI for at least three consecutive years prior to petitioning for Academic Renewal and must have completed at least 15 credit hours since his or her return with at least a 2.0 GPA.
2. Courses taken prior to fall 1988 term are not eligible for Academic Renewal. Academic Renewal will affect all courses with grades of D or F taken between fall 1988 and the student's absence.
3. Academic Renewal may be granted only one time per student and cannot be reversed.
4. Any academic suspensions that occurred in the past shall remain on the student's permanent academic record.
5. All attempted coursework and grades will remain on the student's official transcript. All courses affected by Academic Renewal will be excluded from the GPA calculation and may not be used to meet program and/or residency requirements for future graduation. A statement will be placed on the student's transcript indicating that Academic Renewal status was granted.
6. Academic Renewal does not affect any previous academic, financial or administrative determination made by TVI. Other institutions/agencies may or may not choose to honor this policy in evaluating a student's transcript.
7. Academic Renewal does not override the enrollment requirements of certain programs that require a specific minimum grade point average based on all coursework. Re-entry into any academic program is not automatic.
8. Petitions for Academic Renewal are obtained from academic advisement offices.

## 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.

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

Probation: A student whose cumulative GPA (based on at least 16 GPA credit hours attempted at TVI) 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 TVI while on probation. Notification of academic probation appears on the student's grade report at the end of each term.

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.

## SUSPENSION

After two consecutive terms of probation a student will be suspended from TVI 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 academic suspension appears on the student's grade report at the end of each term and in a notification letter sent to the student.

If a suspended 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.

Suspension Appeals: A student who has been suspended may submit a written appeal, explaining the unusual circumstances justifying why he or she should be readmitted, to the director of Admissions and Records, who will approve or deny the appeal. If the director denies the appeal, the student may appeal in writing to the Student Academic Appeals Committee by filing the appeal with the director of Admissions and Records for transmittal to the committee. The student may present the case to the committee in person or ask that the written appeal be considered. If the committee decides to readmit a suspended student, his or her academic status will be probationary.

## GRADUATION

TVI conducts one graduation ceremony each year at the end of the spring term. A student graduates in the term in which all graduation requirements are completed even if there is no graduation ceremony scheduled that term. In 2002, graduation for students who complete programs in the summer and fall 2001 and spring 2002 terms is April 19.

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:

- a cumulative GPA of 2.0 or better for associate degrees; a GPA of 2.0 in the major (program) for certificates;
- completion of the last term of course work in residence at TVI;
- enrollment in the major in which they plan to graduate (see page 14 for information on adding, changing and declaring majors);
- completion at TVI of at least one-quarter of the required program coursework and credit hours for a certificate and at least 15 credit hours of the required program coursework for a degree after the program becomes available;
- completion of all program and course requirements (occupational coursework which is at least ten years old must be validated by the instructional department in which the course was offered); and
- completion and submission of an Application for Graduation within two terms of last enrollment. A late graduation fee will be charged to all noncurrent students. (Incomplete packets will not be processed.)
Note: A maximum of nine credit hours of CR may be counted toward certificates or degrees in majors which allow the CR/NC option. Credit based on challenge exams and courses graded $A U$ do not apply toward the graduation residence requirement.

All debts to TVI must be paid in full before graduation.

Application for Graduation: Students in degree or certificate programs must submit a Graduation Application Packet by midterm of the term in which all graduation requirements are completed.

Students requesting a certificate or degree in more than one major must submit a complete Graduation Application Packet for each major. Students completing more than one certificate or degree program may not wait until the final program has been completed to apply for graduation. Students may not apply for graduation in more than two programs per term. Graduation Application Packets must be submitted as each program is completed.

Students using transfer credit, examination credit and/or course waivers/substitutions to fulfill program
requirements must have all credit established and all documentation on file in the TVI Records Office at least two weeks prior to submitting the Graduation Application Packet (see page 13). Failure to do so will cause the application to be denied.

On the Main Campus, application packets for occupational programs are available in instructional department offices; liberal arts packets are in the Advisement and Counseling Department. At the Montoya, Rio Rancho and South Valley campuses, application packets are available in the Advisement/ Counseling Offices.

Students who do not submit an application by the deadline must pay, in advance, a $\$ 20$ late graduation processing fee for each application. No application will be processed after the tenth week of the term.

Choice of Catalog: The application form for a degree or certificate requires a student to specify the catalog year listing degree or certificate requirements. A student may choose to graduate under the catalog that was in effect when he or she officially entered the specific major or any subsequent catalog, provided that:

- 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; and
- the certificate/degree program does not have a specific requirement about choice of catalog.
Regardless of the catalog under which a student will graduate, pre- and corequisites must be met for each course at the time of registration. 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 courses dropped on or before the 15 th day of the term or session (including Saturdays) do not appear on the student's TVI 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.

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.

Updating Associate Degrees: A student who has received an associate degree from TVI may earn a subsequent associate degree in the same major (program) when:
■ the student completes, at TVI, a minimum of 30 credit hours of new or additional required program course work (see note below) and
■ the student has met all other graduation requirements as stated in the TVI catalog.

Note: These credits must be earned in courses required by the program for graduation and may not have already been used to satisfy graduation requirements in the student's prior degree(s) in that major (program). These new and/or additional credits cannot be earned by repeating courses that were used for graduation in the prior TVI degree(s) in that major (program).

Updating Occupational Certificates: A student who has received an occupational certificate may update his/her skills and earn a subsequent certificate in that program when:

- the previously earned certificate is ten years old or older, and
- 100 percent of the certificate coursework was completed within the past ten years; and
- the student has met all other graduation requirements as detailed in this section.


## STUDENT ACADEMIC RECORDS

The Records Office maintains official academic records. These records include, but are not limited to, the admissions application, high school and/or college transcripts, grades and academic standing.

TVI's policy for maintaining confidentiality of student academic records is in accordance with the Family Educational Rights and Privacy Act of 1974 (FERPA, 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 Offices at the Montoya, Rio Rancho and South Valley 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:

- TVI officials who have a legitimate educational interest in the records;
- officials of another school in which a student seeks to enroll, intends to enroll or is enrolled
- officials of the U.S. Department of Education, the Comptroller General, and state and local educational authorities;
- organizations providing the student's financial aid or determining or assisting in determining financial aid decisions concerning eligibility, amount, condition and enforcement of terms of said aid;
- federal, state and local officials or authorities if required by a state or federal law
- organizations conducting certain studies for or on behalf of the Institute
- accrediting institutions
- organizations or individuals conducting studies for or on behalf of TVI
- 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 student or the parent or legal guardian of students under 18
- appropriate parties in a health or safety emergency Public Directory Information: TVI 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.

Challenge of Contents: Students have the right to challenge the content of their academic record if they feel the information is misleading, inaccurate or in violation of privacy or other rights. 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. If such informal meetings are not satisfactory, the student has the right to a formal hearing before an appeals committee. Students have the right to file with the U.S. Department of Education a complaint concerning alleged failures by TVI to comply with the requirements of FERPA.

Change of Address: The student is expected to keep TVI informed of his or her current address. Address changes are processed only for currently enrolled students. Changes must be reported in writing to the Records Office on the Main Campus or the Admissions offices at the Montoya, Rio Rancho or South Valley campuses.

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 Offices at the Montoya, Rio Rancho or South Valley campuses. Examples of such documentation are: marriage certificate, birth certificate, driver's license, original social security card or court order for legal name change.

Release of Transcripts: Unofficial TVI transcripts are available from the "Touch TVI" kiosks at all campuses and from the Records Office at Main Campus. Official TVI transcripts are available from the Records Office and from the Admissions Offices at the Montoya, Rio Rancho and South Valley campuses (additional processing time may be required). Transcripts may be requested in person, by fax or by phone. Students may request up to three official TVI transcripts, free of charge, per academic year. Additional transcripts cost $\$ 3$ each and $\$ 10$ for transcripts faxed within the continental U.S., and must be paid for in advance. No transcript is issued until all institutional obligations are paid.

Transcripts from other institutions received by TVI are not copied for or returned to students.

Social Security Number: Under the federal 1997
Tax Relief Act, TVI is required to obtain the Social Security number of each student in order to report educational credits to the U.S. Internal Revenue Service (IRS) and to the student at the end of each tax year. Refusal to provide a valid Social Security number may result in a fine levied on the student by the IRS. The privacy of a student's Social Security number is protected under FERPA and covered under TVI's Access to Student Academic Records and Public Directory Information policies (see above).

## Student Right to Know and Campus Security Act:

Student retention and completion data are available from TVI's Institutional Planning and Research Office. A graduate job placement table is on pages 8-9.
Campus security policies and crime statistics are published in the Rules and Policies section of this catalog, and posted at www.tvi.cc.nm.us.

## STUDENT SERVICES

5tudents-prospective, new, continuing and ner-
are provided with a wide range of services at TVI.
The following services are available at all four campuses:

- admission and registration information;
- new and continuing student orientation;

■ academic advisement; and

- services or referrals for counseling, financial aid and testing.
Services at the Main and Montoya campuses include support for students with disabilities, financial aid, testing, career planning, job placement and (at Main only) health and fitness care. Counseling, career planning and some testing services are available by appointment.

The hub of TVI student services is the Student Services Center at 900 University Boulevard SE. At the Joseph M. Montoya Campus, services are available in Tom Wiley Hall and in H Building. Students may call the TVI admissions information line, 224-3160, for directions to Main and Montoya services. Student Services at Rio Rancho may be reached at 892-7113; the number at South Valley Campus is 224-5000.

Details about student services, as well as academic and conduct regulations, campus maps and phone numbers, and tips for student success, are published in the TVI Student Handbook, which is distributed free at all campuses. "Touch TVI" kiosks at all campuses offer self-service information and access to TVI's home page and students' files. Information and assistance also are available from the dean of students office, 224-4342.

## Academic Advisement and Counseling

Professional advisors, counselors and staff in the Advisement and Counseling Centers (224-4321 at Main Campus or 224-5646 at Montoya) provide:

- review of transfer, exam and non-traditional credits;
- assistance with course placement based on placement tests or prior college courses;
■ information about program requirements/majors;
■ help in declaring or changing majors;
■ advice on academic progress and goals; and
- academic guidance during registration.


## Personal and Career Development Counseling

Main (224-4321) and Montoya (224-5646) campuses are also staffed by licensed professional counselors who provide career, educational, personal and mental-health
counseling; workshops and special-interest groups; information for those preparing for the GED test; and crisis intervention. A Native American advisor and support staff are available. The Career Resource Rooms (224-4344 at Main and 224-5646 at Montoya) have books, videos, Internet access and other career research tools for students.

## Special Services

Special Services (224-3259 at Main, 224-5946 at Montoya) assists students with physical, mental, learning, visual, speech or hearing disabilities. Career counseling, program planning, classroom accommodations, adaptive equipment, coordination with community support agencies and specialized learning plans are available. Follow-up services such as counseling and job-seeking help are also provided.

## Assessment Centers (Testing)

TVI's Assessment Centers, in the Student Services Center at Main Campus (224-3244) and in Tom Wiley Hall at Montoya Campus (224-5761), offer a variety of tests, most of them free of charge. Study guides for most exams are available in the Assessment Centers and in Admissions offices. Testing accommodations for individuals with disabilities are available upon request; documentation and prior notice are required.

Among the examinations administered at TVI are Accuplacer math, reading and English tests; the Healthcare Technician program entry exam; the Nursing Basic Math Test and Nursing Mobility Profile; the Spanish placement exam and typing tests.

The American College Test (ACT) for placement is not offered at TVI. Students wishing to take the tests must register for a national test date; information and registration packets are available in the Assessment Centers. TVI accepts ACT scores from all students for placement in certain courses. TVI also honors SAT, AP and CLEP scores but administers only the CLEP exam; for further information students may contact the Assessment Centers.

## GED Exam

Anyone at least 17 years old who is not a high school graduate may take the General Educational Development (GED) exam at TVI to earn a high school diploma. The exam contains sections on writing, reading, science, social studies and math. A $\$ 15$ fee is charged for the GED test.

A 17-year-old may take the exam only if released from state compulsory school attendance 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.

The Department of Adult \& Developmental Education (224-4282 at Main Campus, 224-5575 at Montoya) offers free GED preparatory classes (see page 29).

## Student Job Placement

Student Job Placement (224-3060 at Main Campus, 224-5507 at Montoya) provides a variety of job search services to students and graduates, including job listings, a job hotline, resume and interview assistance, on-campus recruitment and interviews with employers, job market information, job fairs, job search workshops, and videos and specialized assistance. Eligible students may register in the Student Job Placement Department or from anywhere they have Internet access for on-line services at http://sjpweb.tvi.cc.nm.us.

Student Job Placement provides a variety of services to employers, including no-cost job advertising, student/ graduate referrals, on-campus recruiting and interviewing, career fairs, and instructional/faculty contacts. Employers may register for on-line services at http://sjpweb.tvi.cc.nm.us or may contact the department by telephone.

Student Job Placement provides institutional and community services, including class presentations upon request describing department services, and collecting and publishing TVI graduate job placement statistics. A table showing graduate job placement is on pages 8-9; for the most recent information, contact the Student Job Placement Department.

## Experiential Education

The Office of Experiential Education provides a variety of services in cooperative education, internships, service learning, community service and volunteerism. The office works with instructional programs in providing students with various forms of experiential education opportunities. The office is open weekdays from 8 a.m. to 5 p.m. Students are required to register for cooperative education, internships and service learning.

## Health Care

The Student Health Center, located in the Student Services Center on Main Campus (224-3080), is open weekdays from 8 a.m. to 5 p.m. First aid and basic primary care services are offered. Services are free except for complete physical exams and some immunizations. Details about private-provider student health insurance are available at the Student Activities Office in the Student Services Center at Main Campus (224-3238) and in Wiley Hall on the Montoya Campus.

## Campus Life

Albuquerque TVI offers its students a number of activities which are meant to enrich life on campus and to provide for a well-rounded education. Lists of activities and services, along with the campus code of conduct, are published in the Student Handbook.

Child care: TVI maintains affiliation with Tres Manos Child Development Center, 823 Buena Vista SE on the south side of Main Campus (848-1310), to provide daytime care for children of low-income students. Neighborhood residents may also use Tres Manos. Cost of services is on a sliding scale and preference is given to single parents. (Also see page 18.)

## Parking

Parking is currently free at most campus lots, although spaces are limited and extensive changes in parking will occur during the 2001-02 school year resulting in most on-campus parking being paid.

At Main Campus, students and employees may purchase parking permits for gated lots through the Cashier's Office. Additional information is available from Parking Services, 224-4637 or parkserv@tvi.cc.nm.us.

Parking stickers are required for all campus lots and are available free at the information counter in the Admissions Office at Main and Montoya and in the administrative offices at Rio Rancho and South Valley campuses.

Parking violations may result in disciplinary action against car owners. Cars parked in fire lanes and in spaces reserved for the handicapped are subject to towing.

TVI students and employees also may purchase parking permits for the University of New Mexico south lot on César Chavez Boulevard. A free shuttle bus runs between the lot and various points on TVI's Main Campus. Permits are sold at the Cashier's Office in the Student Services Center.

## ACADEMIC SUPPORT SERVICES

These services are available free to students and, in some cases, to the public. Libraries and other facilities are generally open weekdays and, when classes are in session, evenings and weekends. Hours are listed in the Student Handbook.

## LIBRARIES

The libraries at the Main and Montoya campuses offer books, videotapes, maps, pamphlets, newspapers, magazines, encyclopedias and dictionaries, as well as computerized information retrieval systems. Special collections are maintained in all TVI 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 in Jeannette Stromberg Hall (224-3274); the Montoya Campus Library is in J Building (224-5721).

Information about the libraries' electronic resources is available on the TVI home page: http://ocean.tvi.cc.nm.us/library/.

## INSTRUCTIONAL MEDIA RESOURCES

This unit provides audiovisual, media production and distance learning technical support. Other services include assistance in the design, preparation and application of audiovisual materials for instruction, information and promotional activities.

The Main Campus IMR offices are in Stromberg Hall (224-3306) and Salazar Hall (224-3400). At Montoya, IMR is in K Building (224-5746).

## ASSISTANCE CENTERS FOR EDUCATION

The Assistance Centers for Education (ACE) provide learning support at all four campuses by offering one-toone and small-group learning assistance, reinforcing classroom concepts, fostering independent thinking and helping develop problem-solving skills. ACE is part of the Department of Adult \& Developmental Education.

Services are available free to students and, in some cases, to members of the public. ACE is certified by the College Reading and Learning Association, and qualified tutors are available to help students in a variety of subjects. ACE components are:

Open Computer Lab: This lab in Jeannette Stromberg Hall at Main Campus (224-4313) is for use by students and, on a space-available basis, by the public. The lab has Pentium computers with various software for educational and personal use on a first-come, first-serve basis. Staff members are on duty to provide general assistance.

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

The T/LCs are accredited by the College Reading and Learning Association. The Main Campus T/LC is in Stromberg Hall (224-4306). At Montoya, the T/LC is in J Building (224-5990).

Adult Education Learning Centers: The centers provide individualized instruction and independent study to Adult Education students in reading, math, writing and English as a second language. A variety of instructional resources is available, such as audio cassette tapes, video tapes, textbooks and software. Instruction is provided on an open-entry basis by tutors. The Main Campus center is in Stromberg Hall (224-4312). The Montoya center is in J Building (224-5582).

Math Applications Learning Lab (MALL): The lab provides extra assistance for students in Developmental Education math classes. 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. At Main Campus the lab is in Ken Chappy Hall (224-3987). At Montoya the lab is in J Building (224-5990).

Writing and Reading Assistance Center (WRAC): Developmental Education students have access to one-on-one and small-group help with writing and reading projects in the WRAC. 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 reading and writing courses. Resource materials and computers with writing and reading software are also available. This lab is located in Ken Chappy Hall on the Main Campus (224-3954) and in J Building at Montoya (224-5990).

## Developmental Education Math Tutoring:

Instructional technicians provide one-to-one and smallgroup instruction to Developmental Education students at both campuses. The math tutoring centers also offer weekly small-group workshops, computer-aided instruction, a resource library and a lending library of math videos and calculators. At Main Campus the center is in Ken Chappy Hall; at Montoya it is in J Building.

# ADULT \& DEVELOPMENTAL EDUCATION 

The vision of the Department of Adult \& Developmental Education (DADE) is to be a progressive learning community in which all students, staff, and faculty can succeed and become life-long learners. DADE's mission is to create a progressive learning community designed to meet the needs of a diverse student population by integrating adult education, developmental education, and learning assistance. We are committed to using education as a tool to help students increase options, thus improving the quality of their lives.

There are many reasons students are not ready for college-level studies. Some did not enroll in the right courses in high school; others once had the skills but have not used them; and some have faced responsibilities or circumstances that made it difficult to succeed.

Faculty and staff in the Department of Adult \& Developmental Education work with students to develop the basic academic, work, and life skills necessary for success. DADE offers free non-credit classes in Adult Education as well as free credit courses in Developmental Education. Credit courses in reading, study skills, writing, computer science, math, and science are offered as well as introductory courses to some vocational programs. Students are placed in the appropriate courses based on their needs, interests, academic abilities, and test scores. The department also offers learning support through the Assistance Centers for Education (ACE).

## ADULT EDUCATION

## Non-Credit Skills Classes

The Adult Basic Education Program at TVI offers free instruction to adults who do not have their high school diploma and to adults who do not speak English as their first language. Courses are offered in English as a Second Language (ESL) and Basic Academic Skills/ GED Preparation (BSK \& JLS). These courses help students prepare for higher education, job advancement or personal fulfillment. Adult Education students receive most of the same services as other TVI students (library access, for example) but do not follow the procedures outlined in this Catalog for admission/ registration and are not eligible for financial aid. Textbooks are provided free to students.

Adult Education classes are offered during the day and in the evening at each of the TVI campuses as well as at many community sites throughout Bernalillo

County. Additional information on Adult Education sites is available at any of the TVI campuses. Eligible students may register for Adult Education classes at any of the TVI campuses or community sites where classes are offered. Adult Education offices are located in Ken Chappy Hall on Main Campus (224-4282), the H Building at Montoya Campus (224-5575) and in the main office area at South Valley Campus (224-5000). Prior to registering for classes offered at TVI campuses, students are required to complete the CASAS assessment for placement into classes.

Instructors take attendance at each class session. If a student is absent four classes in a row, the teacher will try to contact the student. A student may be dropped from the class after four consecutive absences. Students who have missed or dropped classes are encouraged to go to the Adult Education Learning Centers at the Main and Montoya campuses to continue their studies. Each student receives a certificate that indicates the total number of hours attended in each course. No letter grades are given. Unless otherwise noted, classes are offered for the full-term.

## DEVELOPMENTAL EDUCATION

## Credit College-Preparatory Courses

Developmental Education courses prepare students for liberal arts or vocational majors, for self-improvement, or for career enhancement. The courses are graded CR (credit) and NC (no credit) to help students build their skills without the added pressure of the traditional grading system (A,B,C,D,F). While credit from Developmental Education courses is not transferable to other degree-granting institutions, these courses typically help students meet admissions requirements and program prerequisites.

Developmental courses are numbered 090 through 100. Subjects are English (course prefix ENG), math (MATH), reading (RDG), study skills (SSKL), biology (BIO), chemistry (CHEM), occupational topics (OCC), accounting (ACCT), computer programming (CP), computer science (CSCI), drafting (DRFT), electronics (ELEC) and health (HLTH).

Eligible students may receive financial aid for up to 30 credit hours in Developmental Education courses. Students using veterans' benefits should check with VA certification advisors (in the Financial Aid Office) to determine if the Developmental Education courses are eligible for benefits.

## FULL-TIME INSTRUCTIONAL PERSONNEL

Geraldine L. McBroom, dean; Ph.D.
R. Jane Bradley, associate dean; Ph.D.

Marya Corrigan, associate dean; M.A.
Stephen Sanchez, director, Student Transitional Programs; M.A.
Jana F. Smith, director, Developmental Education; B.S.
Lis Turkheimer, director, Assistance Centers for Education; B.A.
Tim Allen, math instructor; B.S.E.
Roberta Ataman, English, reading instructor; M.Ed.
Donald Bauer, math, drafting instructor; B.S.
Hailey Binford, ESL instructor; M.A.
Judith L. Brown, math instructor; M.A.
Angelika S. Carroll, English, reading instructor; M.A.
James N. Chaves, math, electronics instructor; M.S.
Marie Chávez, ESL instructor; M.A.
Max Cisneros Jr., math instructor; B.A.
Linda Clay, math instructor; M.A.
Don Croxton, math instructor; B.S.
Leslie Dobkin, English, ESL instructor; M.A.
Darryl Domonkos, math, reading instructor; M.C.P.
Martin J. Doviak, English, math instructor; M.A.
Shirley Ellison-Pryor, math, reading, English instructor; M.A.
M. Sue Fox, basic skills instructor; M.B.A.

Vicki Froehlich, math instructor; M.Ed.
Stephen Gallegos, reading, study skills instructor; M.A.
Michael Gienger, basic skills instructor; M.A.
Katherine Green, English, reading instructor; M.A.
Constance Gulick, English, reading instructor; M.A.
Jean Hafner, science, math instructor; B.S.
Vicki Hagen, English, reading instructor; M.A.
Janice Hart, English instructor; M.A.
Teresa Hill, English, reading instructor; B.A.
Margaret Ann (Gretta) Hochstatter, math instructor; B.S.
Donna Hurtado, English, reading, math instructor; B.A.
William Johns, math, electronics, computer science instructor; M.A.
Larry Johnson, reading, math, computer programming instructor; M.A.

James B. Kimmons, math instructor; M.A.
Nancy King, English instructor; M.A.
David Kohles, accounting, math, science instructor; B.S. Ed.
Judy G. Kristl, math, reading, English instructor; B.S.
Joseph R. Krzyzanowski, math instructor; M.A.
Gloria Larrieu, English instructor; M.A.
Don Lauser, basic math, computer science instructor; M.A.
Amy Lee, computer science instructor; B.A.
Gerald Leister, English, math instructor; Ed.D.
Victoria Lucero, ESL instructor; M.A.
Ilene Perl Maness, chemistry, math instructor; M.A.
Ellen Mantell, ESL instructor; M.A.
Connie Jo Martinez, English, math, computer science instructor; M.B.A.
Elizabeth C. Martinez, English, math, computer science instructor; M.A.
Marcie Bernal McKenzie, ESL, reading, literacy instructor; M.A.
Charles Miller, math instructor; B.S.
Elizabeth O'Neall, English instructor; M.A.
Maria C. Pacheco, science, math instructor; B.S.
Alexandra Piland, English instructor; M.A.
Linda Pope, English, math instructor; M.A.
Robin Ramsey, English, reading instructor; M.A.
Richard Randolph, English, reading instructor; Ph.D.
Mark Rudd, math instructor; B.A.
Juan M. Saavedra, math instructor; B.A.
Therese Samuel, ESL instructor; B.A.
Gary Sandstrom, math, health instructor; M.A.
Joan N. Silverstein, basic skills instructor; M.A.
Sue Small, basic skills instructor; M.A.
Theresa Sullo, English, reading instructor; M.A.
Ann Tran, math, English instructor; M.A.
Deloris Watkins, English, math instructor; B.A.
Phillip Weaver, math, reading, science instructor; M.A. John Wright, English instructor; M.A.

## ARTS \& SCIENCES

## http://mongo.tvi.cc.nm.us

224-3561

Arts \& Sciences provides liberal arts courses to support vocational degree and certificate programs, and offers the Associate of Arts in Liberal Arts degree. All courses are transferable to other degree-granting institutions as freshman and sophomore electives or requirements. All courses in Arts \& Sciences have tuition charges. In addition, science, computer science, and art courses require course fees.

## GENERAL HONORS PROGRAM

Offering intensive interdisciplinary study, the General Honors Program increases opportunities for liberal arts education. Taught in a small-group seminar format, Honors courses emphasize discussion, student
participation and self-expression. Students interested in these courses must have completed nine hours in Arts \& Sciences, have a 3.2 or higher cumulative GPA and have earned a B or better in English 101. For information and registration, interested students should see an advisor.

## AEROSPACE STUDIES

Students may register at TVI for the University of New Mexico Aerospace Studies/Air Force Reserve Officer Training Corps (AFROTC). Uniforms and textbooks are provided by AFAS. Because these classes are offered at the main campus of UNM, students should contact Lt. Col. Richard G. Trembley (see entry on page 161 in course listing section) before enrolling.

## FULL-TIME INSTRUCTIONAL PERSONNEL

Susan Murphy, Dean; Ph.D.
Jon G. Bentley, Associate Dean; M.A.
Jenna Johnson, Associate Dean; M.S.
Stephen Schoonmaker, Associate Dean; M.A.
Rama Akkaraju, mathematics instructor; M.S. Stephen Andrews, history instructor; M.A. Richard Araiza, mathematics instructor; M.A Jane Bardal, psychology instructor; Ph.D. Jean Batson-Turner, sociology instructor; M.A. Karen Bentz, biology instructor; M.S. David Blankenbaker, mathematics instructor; M.A. Gene Booth, English instructor; M.A. Joseph Boroughs, psychology instructor; Ph.D. Paul N. Cahoon, English instructor; M.A. Richard Calabro, biology instructor; M.S.
Philip Carman, astronomy/physics instructor/chairman; M.A.
Heidi Carr, communication studies instructor; M.A. María Luisa Chacón, Spanish instructor; M.A. Gina R. Chance, sociology instructor; M.A. Steve Cormier, history instructor; Ph.D. Sravanthi Cornell, chemistry instructor; Ph.D. Arnold Crelier, chemistry instructor; Ph.D. Terry Daughtrey, anthropology instructor; M.A. Rose Day, English instructor; Ph.D. Katherine Demitrakis, psychology instructor; Ph.D. Jack Douthett, mathematics instructor; M.Mus. Kaz Dziamka, English instructor; Ph.D. Jeanne Elmhorst, communication studies instructor; M.A.
Bill Epler, mathematics instructor; Ph.D. Joseph Eridon, chemistry instructor/chairman; M.S. Joyce Flagg, English instructor; M.A.

Katelijne Flies-Dullea, biology instructor; Ph.D.
Megan Florence, mathematics instructor; M.A.
Ralph Flores, English instructor; M.A.
Cheryl Foote, history instructor; Ph.D.
Richard Fox, political science instructor; M.A.
Ernest Garcia, art instructor; M.F.A.
Chris Gebel, mathematics instructor; M.A.
Janet Heath, mathematics instructor; M.S.
Michael Hillard, psychology
instructor/chairman; Ph.D.
Sherry Holmen, communication studies instructor; M.A.
Patrick Houlihan, English/journalism instructor; Ph.D.
Havva Houshmand, humanities/religion instructor; Ph.D.
Shepherd Jenks, anthropology instructor; Ph.D.
James Johnson, psychology instructor; M.A. Jennifer Lyn Johnson, art instructor/chairman; M.F.A.
Stephanie Kauffman, English instructor; Ph.D.
Maureen Kelly, mathematics instructor; M.A.
William Kuipers, biology instructor; Ph.D.
Kevin Leith, mathematics instructor; M.S.
Jane Lyo, mathematics instructor; M.A.
Linda Martin, mathematics instructor; M.A.
Carol Ann Martinez, chemistry instructor; M.S.
Tamra Mason, mathematics instructor; Ph.D.
Stephen Mathewson, English instructor; Ph.D.
Layne McAdoo, sociology instructor; Ph.D.
Doug McDoniel, mathematics instructor; Ph.D.
Colleen McNamara, biology instructor; Ph.D.
Shelly Metz, psychology instructor; Ph.D.
Deborah Miller, chemistry instructor; M.S.
William Miller, philosophy instructor/chairman; M.A. Blake Minnerly, physics instructor; M.S.

JoAnn Morgan, psychology instructor; Ph.D., J.D. Deborah Muldavin, biology instructor; M.A.
Barbara Muller, English instructor; M.A.
William Murrell, philosophy instructor; Ph.D.
Mary Odom, physics instructor; M.S.
Linda Oldham, English instructor; M.A.
Lisa M. Orick, communication studies instructor/chairman; M.A.
Umesh Pandey, physics instructor; M.S.
Kate Parker, English instructor; Ph.D.
Harold Partin, mathematics instructor; Ph.D.
George Pletsch, mathematics instructor/chairman; Ph.D.
Alan Pope, English instructor; Ph.D.
Fred Ream, mathematics instructor; M.A.
Jim Rewalt, mathematics instructor; M.S.
Geri Rhodes, English instructor; Ph.D.
Tomas Ruiz-Fabrega, Spanish instructor/chairman; Ph.D.

Jamie Searcy, English instructor/chairman; M.A. Patricia Seitz, sociology instructor; Ph.D. Wayne Shrubsall, English instructor; Ph.D. Leslie Nelson Shultis, music instructor; M.Mus. Janet Smith, computer science instructor; Ph.D.
Peter Steinbach, mathematics instructor; M.A.
Kelly Sullivan, biology instructor, M.A. James Swan, biology instructor; M.S.
J. Ross Thomas, economics instructor; Ph.D.

Dennis Vargo, mathematics instructor; M.A.
Lucy Vigil, Spanish instructor; Ph.D.
Joe Shield Wallace, chemistry instructor; Ph.D.
Gary Walters, computer science instructor; M.A.
LaVonne Wahl, communication studies instructor; Ph.D.
Kathleen Waymire, art instructor; Ph.D.
Shawn Wright, biology instructor; M.S.

## BUSINESS OCCUPATIONS

## http://www.tvi.cc.nm.us/bod

The Business Occupations Department offersopportunities to build business careers. TheBusiness Occupations Department provides education, training and skills you can use to achieve career goals. The department focuses on superior customer service, technology in the classroom, distance learning, student recruitment, student retention, and faculty professional development as it serves a diverse population of students who will participate in business strategies for the next century. Offerings include department verifications of completion, occupational certificate programs, associate of applied science degrees, and an associate of arts degree.

Business Occupations classes are scheduled during the day, evening, and/or Saturday and Sunday at all four TVI campuses, arranged on-site locations, and through distance learning delivery methods. The Business Occupations Department Weekend Business School offers Friday evening, Saturday and Sunday classes.

Some programs, courses, and elective courses are not offered every term. A minimum of 12 students is required for first term and elective courses. 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.

The New Mexico Two-Year/Four-Year Business Articulation Matrix, as well as articulation agreements with several New Mexico postsecondary educational institutions offer course transfer opportunities for Business Occupations students (associate deans have details).

Business Occupations programs that have received national accreditation are (followed by the accrediting organization):

- Accounting (Association of Collegiate Business Schools and Programs)
■ Business Administration (Association of Collegiate Business Schools and Programs)
■ Computer Information Systems (Association of Collegiate Business Schools and Programs)
■ Court Reporting (National Court Reporters Association)
- Paralegal Studies (American Bar Association)

■ Office Administration (Association of Collegiate Business Schools and Programs)

- Pre-Management (Association of Collegiate Business Schools and Programs)
The Higher Learning Commission North Central Association of Colleges and Schools requires that the Business Occupations Department provide outcomes assessment for each of its program areas. All Business Occupations students are required to participate in outcomes assessment. Test scores do not affect graduation status. Associate deans have information regarding outcomes assessment testing procedures.

All occupational courses must be passed with a minimum grade of C to meet prerequisite requirements and certificate and degree requirements.

All Business Occupations students do not have the option of taking occupational courses on a credit/no credit basis except the following Court Reporting courses: CR 104, CR 210, CR 220, and CR 230.

Students in those Court Reporting courses who are receiving financial aid should communicate with the Financial Aid Office before selecting a grade option.

Challenge exams are available for many Business Occupations courses. Students wishing to challenge a course should contact the associate dean in their area of study.

## BUSINESS RESOURCE CENTERS

The Business Resource Centers (BRC) at Main and Montoya campuses support student success and retention in Business Occupations programs. The BRCs provide opportunities for students to practice and strengthen skills presented in the classroom, complete course assignments, receive individual assistance, and utilize resources and state-of-the-art technology to create projects and presentations.

## FULL-TIME INSTRUCTIONAL PERSONNEL

Lois Carlson, CPA, dean; Ph.D.

Susie Cutler, associate dean; M.A.
Emil Radosevich, associate dean; M.B.A.
Dan Valles, associate dean; M.B.A.
Don Adams, computer information systems instructor; M.S.Mgt.
Dawn Addington, CPA (inactive), accounting instructor; M.Acc.
Cheryl Bartlett, CPA, accounting instructor; M.B.A.
David Bency, CPA (inactive), accounting instructor; B.B.A.

Janice Benson, computer information systems instructor; Ph.D.
David Bergsland, business graphics and communications instructor; B.F.A.
Ann Brooks, accounting instructor; M.A.
Mary Burt, office administration instructor; M.A.
Wallace Cates, computer information systems instructor; B.S.
Leigh Anne Chavez, paralegal studies instructor; J.D.
Hyekyung Clark, computer information systems instructor, B.A.
Paul Clark, e-commerce instructor; M.S.
Mary Curik, computer information systems instructor; B.S.
Annette Duvall, computer information systems instructor; M.S.
Michael Felker, e-commerce instructor; M.B.A.
Jean Gallegos, accounting instructor; M.B.A.
Hossein Giahi, business administration instructor; M.B.A.
Patricia Gomez, CRI, court reporting instructor; A.A.S.
Fred Gordon, accounting instructor; M.A.
Marcella Green, computer information systems instructor; M.A.
Sue Gunckel, CPA, accounting instructor; M.S.W.
Catherine Hain, computer information systems instructor; M.B.A.
Gerald Heater, MCSE, computer information systems instructor; M.S.

Mary Carole Helton, computer information systems instructor; M.P.A.
Susan Herrington, computer information systems instructor; M.A.
Debbie Hester-Rael, CPA, accounting instructor; B.S., B.A.
Bob Hildenbrand, CPA (inactive), accounting instructor; M.S.
Marilyn Konnick, office administration instructor; M.A.
Deborah LaPointe, office administration instructor; M.S.
Marvin Lozano, international business instructor; M.S.
Marilyn Maclay, office administration instructor; M.A.
Gloria Madrid, office administration instructor; Ed.D.
Linda Maggart, office administration instructor; B.S.
Joyce Matthews, CPA, accounting instructor; M.A.
Susanna Merchant, office administration instructor; M.A.
Dai Nguyen, paralegal studies instructor; J.D.
Judith Olean, judicial studies instructor, J.D.
William Price, accounting instructor; M.Acc.
Robert T. Reeback, paralegal studies instructor; J.D.
Virginia Rich, office administration instructor; M.Ed.
Anita Sterchi, office administration instructor; M.A.
Robert Stone, business administration instructor; J.D.
Judith Teak, office administration instructor; M.A.
Linda Turpen, computer information systems instructor; M.B.A.
Margie Vance, business administration instructor; M.B.A.
Wallace Van Dusen, computer information systems instructor; M.B.A.
Anita Vaughn, office administration instructor; M.P.A.
José Angel Vélez, computer information systems instructor; B.A.
Joe Webster, CMA, accounting instructor; M.B.A.
Michael Williams, CHE, hospitality and tourism instructor; B.A.
Kim Wong, business administration instructor; M.S., M.B.A., J.D.

## HEALTH OCCUPATIONS

The Health Occupations Department provides entrylevel training and skill upgrading in avariety of medical fields as well as children, youth and family development and elementary education. Special courses, for which a verification of completion is awarded, also are offered. At least 12 students must sign up for a special course before it can be offered, and each student must meet all prerequisites. These courses may not be offered every year. Students enrolled in these courses are not eligible to receive financial aid or Veterans Administration benefits.

Classes are held at Main, South Valley, Rio Rancho, and Montoya Campuses; students may have supervised patient practicums and observations at community agencies.

Enrollment: All Health Occupations programs except Nursing Assistant require a high school diploma or equivalent and completion of the TVI placement test. Most programs also have prerequisites. Health Occupations programs require that students be in good physical condition, free of health conditions that could
endanger themselves or others. Students may be required to have a physical exam. Because of the widespread use of latex products, individuals who have an allergy to latex may find it difficult to successfully complete a Health Occupations program. Credit by examination (challenge) is available for selected courses. 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 only be used for selected courses. A grade of C or better is required in all occupational courses required for graduation. All prerequisite courses require a grade of C or better.

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.

Patricia Loflin, RN, nursing instructor, MSN
Lorraine Lowen, RN, nursing instructor, MSN
Sandra Luck, child, youth and family development instructor, MA
Janet Mason, RN, nursing instructor, MSN
Ruth McCall, MT (ASCP), CLS (NCA), program director, phlebotomy and clinical lab assistant, BS
Paulette McNeill, RN, nursing instructor, MSN
Susan Michalske, RN, nursing instructor, MSN
Gloria Monek-Kovanis, RN, nursing instructor, MSN
Susan Morgan, RN, nursing instructor, MN
Mary Moser-Gautreaux, RN, nursing instructor, MSN
Delores Pederson, RN, nursing assistant instructor, MSN
Marian Sawyier, RN, nursing instructor, MSN
Douglas Scribner, chair of the pharmacy technician program, BA
Ann E. Sims, RN, program director, nursing assistant, BSN
Penelope Stanley, RN, nursing instructor, MN
Patricia Stephens, RN, director of nursing programs, MSN
Carol Winkles, RN, nursing instructor, MSN

The high skilled, high-tech jobs of the 21 st 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.

Several programs offer concentrations so that students may specialize in their primary area of interest. The time necessary to complete most of the Technologies programs varies from 12 to 24 months if a student carries a full course load each term.

To enter Technologies courses, the student must meet the prerequisites of MATH 100B or equivalent, RDG 099 or equivalent, and CP 176, Introduction to Technology Computer Applications, or equivalent.
Technologies accepts BA 150 or CSCI 101 as equivalent to CP 176.

Challenge examinations are available for some courses numbered below 200. For information concerning transferability of vocational courses either
to or from TVI, students should see the appropriate director or program chair.

Optional courses are available to enhance the education of those students meeting the 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 in the Technologies programs are encouraged to join school clubs (also known as student groups). Clubs that are supported by the Technologies department are the Computer Technology Student Association, Society of Manufacturing Engineers (SME) and the Skills USA-VICA. Information is available from directors and program chairs.

Students working toward an associate degree or a certificate must earn a grade of C or better in all occupational courses to meet graduation requirements. For more information call 224-3340.

## FULL-TIME INSTRUCTIONAL PERSONNEL

Steve Benavidez, associate dean; M.A.
Ed Baca-Green, manufacturing tech. instructor; B.S.
Joseph Black, electronics technology instructor; M.P.A., M.S.E.E.

Bruce Bush, electronics technology instructor; B.S.
Jenifer Brunette, manufacturing technology instructor; M.A.
Phyllis Cece, registered architect architectural/ engineering drafting technology instructor; B.A.
David Clauss, networking technology instructor; B.A.
Gail Collins, computing technology instructor; B.A.
Michael Cranney, web technology instructor; M.A.
Tom Darling, construction management technology instructor; B.A.
Hadie Fotouhie, design drafting engineering technology instructor; M.S.
Steven Fraker, architectural/engineering drafting technology instructor; M.A.
Hayward Franklin, computing technology instructor; Ph.D.
Joel Gellman, electronics technology instructor; B.S.
Terry Gonzales, computing technology instructor; B.A.
Gordon Hall, registered architect, architectural/ engineering drafting technology instructor; M.Arch.
James Hart, networking technology instructor; B.U.S.
Andrew Huertas, electronics technology instructor
Raymond Isengard, electronics technology instructor
Barbara Johnston, computing technology instructor; M.A., M.S.

Brenda Judd, computing technology instructor; M.B.A.

Peter Kalitsis, registered architect, architectural/
engineering drafting technology instructor; B.A.
Paul Kirkpatrick, computing tech. instructor; B.U.S.
Eric Krosche, manufacturing tech. instructor; M.S.
Darrell Leland, computing technology instructor; M.A.
Fabian Lopez, electronics technology instructor
Trisha Miller, achievement coach; M.A.
Earnestine Mitchell,computing technology instructor; B.A.
Mark Nolan, electronics technology instructor; M.A. Stephen Parratto, computing technology instructor; M.S.
Paul Quan, director, computing technology; M.S.
Jimmy Reed, computing technology instructor; B.S.
Laurence Rose, computing technology instructor; M.S.
David Ruff, construction management technology instructor; B.A.
Susan Sujka, electronics technology instructor; B.S.
Paul Trujillo, electronics technology instructor; B.S.
Srini Vasan, manufacturing technology instructor; Ph. D.
Ramon Vigil, electronics technology instructor; B.A.
Wesley Wesbrooks, electronics engineering technology instructor; B.A.
Michael White, electronics engineering technology instructor; M.S.
Elizabeth Wilkinson, computing technology instructor; B.A.
Mary Jane Willis, manufacturing technology instructor; M.A.
Chuck Yonker, design drafting engineering technology instructor, B.A.

## TRADES \& SERVICE OCCUPATIONS

The Trades \& Service Occupations Department provides a technical learning environment to the preparation of individuals for challenging positions in the community work force. Most classes are held at the Main Campus, and there are opportunities for hands-on learning at off-campus sites. The department offers certificates and degrees that prepare individuals for entry-level positions, job advancement and technical skill upgrading.

Students are encouraged to participate in Skills USA, a national student organization whose activities are an integral part of the curriculum.

Cooperative education allows qualified students the option to complete course work via a related entrylevel wage job. A written agreement with specific objectives is signed by the student, TVI 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.

Students planning to transfer to four-year schools
should meet with TVI personnel to discuss transferability of courses.

Most Trades \& Service Occupations programs require that students be in good physical condition and be free of allergies or health conditions.

Most programs require basic hand tools. Tool lists with approximate costs and purchase deadlines are provided by instructors at the beginning of each term.

Students working toward an associate degree or a certificate must earn a grade of C or better in all occupational courses to meet graduation requirements.

## OPTIONAL COURSES

Optional courses are offered in remodeling (course prefix: BT), small engine skills improvement (SCSE), employment skills (SSKL) and Skills USA (VICA). At least 12 students must sign up and instructional space, instructor and budget must be available before an optional course can be offered.

## APPRENTICESHIPS

The Trades \& Service Occupations Department, in conjunction with industry groups, offers apprenticeship-related instruction for persons currently employed in commercial carpentry, electrical trades, general trades, iron worker, plumbing and sheet metal (see page 51 ).

John Hostak, service occupations director; M.S.
Joyce Jones, professional cooking instructor; B.S.
Michael Kavanaugh, fire science instructor; B.S.
Robert Kho, automotive technology instructor; B.A.
Barry King, environmental safety and health instructor; M.S.
Kerry Knoop, culinary arts instructor; B.A.
Samuel E. Lovelette, electrical trades instructor; B.S. Elizabeth McGeehan, baking instructor; B.A.
Thomas J. Morris III, cosmetology/fitness chair; M.S.
Larry Mounger, transportation technology chair; B.S.
John Murray, construction/mechanical technology director; B.A.
John Pierce, carpentry instructor; B.A.
Carmine Russo, culinary arts chair; B.S.
Jerry Sais, metals/transportation director; B.S.
Martin Samudio, professional cooking instructor; B.S.
Harold Senke, environmental safety and health instructor; M.A.
Greg Tolbert, air conditioning, heating and
refrigeration instructor
Richard Warren, metals chair; B.S.

## PROGRAMS OF STUDY

| Program of Study | : |  |  | - |
| :---: | :---: | :---: | :---: | :---: |
| ACCOUNTING | AAS | $\checkmark$ |  | 49 |
| Adult Education <br> - Basic Skills <br> - English as a Second Language (ESL) <br> - Job/Life Skills |  |  |  | 157 |
| Air Conditioning, Heating \& Refrigeration also Concentration under MECHANICAL TECHNOLOGY |  | $\checkmark$ |  | 50 |
| Apprenticeships under Trades \& Service Occupations <br> - Commercial Carpentry <br> - Electrical Trades <br> - General Trades <br> - Iron Worker <br> - Plumbing <br> - Sheet Metal |  |  |  | 51 |
| ARCHITECHTURAL/ENGINEERING <br> DRAFTING TECHNOLOGY <br> - Residential Drafting <br> - Computer Assisted Drafting | AAS | $\checkmark$ | $\begin{aligned} & \checkmark \\ & \checkmark \end{aligned}$ | 52 |
| Arts \& Sciences Electives (see LIBERAL ARTS) |  |  |  | 113 |
| Automotive Service Fundamentals |  |  | $\checkmark$ | 54 |
| Automotive Technology also Concentration under TRANSPORTATION TECHNOLOGY |  | $\checkmark$ |  | 54 |
| Baking <br> (courses may apply toward AAS in CULINARY ARTS) |  | $\checkmark$ |  | 55 |
| Bilingual Education <br> Concentration under ELEMENTARY EDUCATION |  |  |  | 95 |
| Bookkeeping |  | $\checkmark$ |  | 56 |
| BUSINESS ADMINISTRATION <br> Concentrations: <br> - Continuous Quality Improvement (also) <br> - General Business <br> - Management <br> - Real Estate <br> - Small Business Management | AAS | $\checkmark$ | $\checkmark$ | 57 |
| $\underline{\text { Business Applications Design }}$ |  |  | $\checkmark$ | 58 |

## PROGRAMS OF STUDY

| Program of Study |  |  |  | - |
| :---: | :---: | :---: | :---: | :---: |
| Business Computer Applications <br> Concentration under COMPUTER INFORMATION SYSTEMS |  |  |  | 66 |
| BUSINESS GRAPHICS | AAS | $\checkmark$ |  | 59 |
| Business Information Management <br> Concentration under COMPUTER <br> INFORMATION SYSTEMS |  |  |  | 66 |
| Call Center Operations |  |  | $\checkmark$ | 61 |
| Carpentry <br> also Apprenticeship <br> - Commercial Carpentry under Trades \& Service Occupations |  | $\checkmark$ |  | 61 |
| Child Development Associate (CDA) <br> Concentration under CHILD, YOUTH <br> AND FAMILY DEVELOPMENT |  |  |  | 62 |
| CHILD YOUTH AND FAMILY DEVELOPMENT <br> Concentrations: <br> - Family Studies <br> - Early Childhood Multicultural Education (ECME) | AA | $\checkmark$ | $\checkmark$ | 62 |
| Clinical Laboratory Assistant |  | $\checkmark$ |  | 65 |
| Community Recreation <br> Concentration under RECREATION AND LEISURE (pending CHE approval) |  |  |  | 144 |
| Computer Animation <br> Concentration under COMPUTING TECHNOLOGY |  |  |  | 73 |
| COMPUTER INFORMATION SYSTEMS <br> Concentrations: <br> - Business Computer Applications <br> - Business Information Management <br> - Data Communications Management <br> - Multimedia | AAS | $\checkmark$ |  | 65 |
| $\underline{\text { Computer Network Services }}$ |  |  | $\checkmark$ | 70 |
| Computer Programming <br> Concentration under COMPUTING TECHNOLOGY |  |  |  | 71 |
| COMPUTING TECHNOLOGY <br> Concentrations: <br> - Computer Programming <br> - Computer Animation | AAS | $\checkmark$ |  | 71 |

## PROGRAMS OF STUDY

| Program of Study |  |  |  | - |
| :---: | :---: | :---: | :---: | :---: |
| CONSTRUCTION MANAGEMENT TECHNOLOGY <br> - Residential Superintendent <br> - Construction Estimator | AAS |  | $\begin{aligned} & \checkmark \\ & \checkmark \end{aligned}$ | 74 |
| CONSTRUCTION TECHNOLOGY <br> Concentrations: <br> - General Construction <br> - Electrical | AAS |  |  | 75 |
| Continuous Quality Improvement <br> also Concentration under BUSINESS ADMINISTRATION |  |  | $\checkmark$ | 77 |
| COSMETOLOGY | AAS |  |  | 77 |
| COURT REPORTING | AAS |  |  | 79 |
| CRIMINAL JUSTICE | AAS |  |  | 81 |
| Critical Care Nurse Internship |  |  | $\checkmark$ | 82 |
| CULINARY ARTS | AAS |  |  | 83 |
| Data Communications Management Concentration under COMPUTER INFORMATION SYSTEMS |  |  |  | 66 |
| Data Entry |  |  | $\checkmark$ | 84 |
| Database Management |  |  | $\checkmark$ | 84 |
| $\underline{\text { Dental Assistant }}$ |  | $\checkmark$ |  | 85 |
| DESIGN DRAFTING ENGINEERING TECHNOLOGY | AAS |  |  | 85 |
| Developmental Education - Credit College-Preparatory Courses English, English as a Second Language, Mathematics, Reading and Study Skills, Science, Occupational Introduction/Support |  |  |  | 29 |
| DIAGNOSTIC MEDICAL SONOGRAPHY | AS |  |  | 86 |
| Diesel Equipment Technology <br> also Concentation under TRANSPORTATION TECHNOLOGY |  | $\checkmark$ |  | 87 |
| Digital Publishing |  |  | $\checkmark$ | 88 |
| Early Childhood Multicultural Education Concentration under CHILD, YOUTH AND FAMILY DEVELOPMENT |  |  |  | 62 |
| E-COMMERCE | AAS | $\checkmark$ |  | 89 |
| E-Commerce Business Startup |  |  | $\checkmark$ | 90 |

## PROGRAMS OF STUDY

| Program of Study |  |  |  | 甤 |
| :---: | :---: | :---: | :---: | :---: |
| E-Commerce Fundamentals |  |  | $\checkmark$ | 90 |
| E-Commerce for the Hospitality Industry |  |  | $\checkmark$ | 91 |
| E-Commerce Operations |  |  | $\checkmark$ | 91 |
| E-Commerce for Real Estate |  |  | $\checkmark$ | 91 |
| E-Commerce for Retail Business |  |  | $\checkmark$ | 91 |
| Electrical Trades <br> also Concentration under CONSTRUCTION TECHNOLOGY <br> also Apprenticeship under Trades \& Service Occupations |  | $\checkmark$ |  | 91 |
| ELECTRONICS ENGINEERING TECHNOLOGY | AAS |  |  | 92 |
| ELECTRONICS TECHNOLOGY <br> Concentrations: <br> - General Electronics <br> - Process Control | AAS | $\checkmark$ |  | 93 |
| ELEMENTARY EDUCATION <br> Concentrations: <br> - Bilingual <br> - Language Arts <br> - Special Education | AA |  |  | 95 |
| Emergency Medical Technician |  |  | $\checkmark$ | 97 |
| English (see LIBERAL ARTS) |  |  |  | 113 |
| Entrepreneurship |  | $\checkmark$ |  | 97 |
| ENVIRONMENTAL SAFETY AND HEALTH | AAS |  |  | 97 |
| Facilities Maintenance <br> Concentration under MANUFACTURING TECHNOLOGY |  |  |  | 116 |
| Family Studies <br> Concentration under CHILDREN, YOUTH AND FAMILY DEVELOPMENT |  |  |  | 63 |
| FINANCIAL SERVICES | AAS | $\checkmark$ |  | 98 |
| Fine Arts (see LIBERAL ARTS) |  |  |  | 113 |
| FIRE SCIENCE | AAS |  |  | 100 |
| $\underline{\text { Fitness Technician }}$ |  | $\checkmark$ |  | 101 |
| Food Service Management |  | $\checkmark$ |  | 102 |
| Foreign Languages (see LIBERAL ARTS) |  |  |  | 113 |

## PROGRAMS OF STUDY



## PROGRAMS OF STUDY

| Program of Study |  |  |  | - |
| :---: | :---: | :---: | :---: | :---: |
| International Retail Business |  |  | $\checkmark$ | 111 |
| Iron Worker |  |  |  | 51 |
| Apprenticeship under Trades \& Service Occupations |  |  |  |  |
| Judicial Studies |  | $\checkmark$ |  | 111 |
| Landscaping |  | $\checkmark$ |  | 112 |
| Language Arts Education Concentration under ELEMENTARY EDUCATION |  |  |  | 96 |
| Legal Office Administration Concentration under OFFICE ADMINISTRATION |  |  |  | 132 |
| LIBERAL ARTS (see catalog for requirements) <br> English, Journalism, Communication Studies, Computer Science, Anthropology, Economics, Geography, Political Science, Psychology, Sociology, Astronomy, Biology, Chemistry, Physics, Cultural Studies, History, Humanities, Literature, Philosophy, Religious Studies, Art, Music, French, Spanish, Theater, Mathematics, Nutrition, General Honors | AA |  |  | 113 |
| Licensed Practical Nurse Refresher |  |  | $\checkmark$ | 114 |
| Machine Tool Technology also Concentration under METALS TECHNOLOGY |  | $\checkmark$ |  | 114 |
| Management <br> Concentration under BUSINESS ADMINISTRATION |  |  |  | 57 |
| MANUFACTURING TECHNOLOGY <br> Concentrations: <br> - Facilities Maintenance <br> - General Manufacturing <br> - Semiconductor Manufacturing | AAS | $\checkmark$ |  | 115 |
| $\underline{\text { Mathematics (see LIBERAL ARTS) }}$ |  |  |  | 113 |
| MECHANICAL TECHNOLOGY <br> Concentrations: <br> - Air Conditioning, Heating and Refrigeration <br> - Plumbing (also Apprenticeship) | AAS |  |  | 117 |
| Medical Coding |  | $\checkmark$ |  | 119 |
| MEDICAL LABORATORY TECHNICIAN | AS |  |  | 120 |
| Medical Office Assistant |  | $\checkmark$ |  | 121 |

## PROGRAMS OF STUDY

## Program of Study

| METALS TECHNOLOGY <br> Concentrations: <br> - Machine Tool Technology <br> - Welding | AAS |  |  | 122 |
| :---: | :---: | :---: | :---: | :---: |
| Microsoft Certified Systems Engineer (MCSE) Certification Preparation |  |  | $\checkmark$ | 124 |
| Microsoft Office User Specialist (MOUS) Certification Preparation |  |  | $\checkmark$ | 124 |
| Microsoft Software Support |  |  | $\checkmark$ | 125 |
| Multimedia <br> Concentration under COMPUTER INFORMATION SYSTEMS |  |  |  | 66 |
| Multimedia Development |  |  | $\checkmark$ | 126 |
| Natural Rersources Recreation Management <br> Concentration under RECREATION AND LEISURE (pending CHE approval) |  |  |  | 144 |
| NETWORKING TECHNOLOGY | AAS | $\checkmark$ |  | 126 |
| NURSING | AS |  |  | 130 |
| Nursing Assistant |  | $\checkmark$ |  | 131 |
| Nursing Home/Home Health Attendant |  |  | $\checkmark$ | 128 |
| OFFICE ADMINISTRATION <br> Concentrations: <br> - Legal <br> - Office Technology | AAS | $\checkmark$ |  | 132 |
| Office Assistant |  | $\checkmark$ |  | 134 |
| Office Technology <br> Concentration under OFFICE ADMINISTRATION |  |  |  | 132 |
| PARALEGAL STUDIES | AAS |  |  | 134 |
| Payroll Clerk |  |  | $\checkmark$ | 136 |
| Perioperative Nurse Specialist |  |  | $\checkmark$ | 137 |
| Pharmacy Technician |  | $\checkmark$ |  | 137 |
| Phlebotomy |  | $\checkmark$ |  | 138 |
| PHOTONICS TECHNOLOGY (pending CHE approval) | AAS | $\checkmark$ |  | 138 |

## PROGRAMS OF STUDY

| Program of Study |  |  |  | - |
| :---: | :---: | :---: | :---: | :---: |
| Plumbing <br> also Apprenticeship under Trades \& Service Occupations also Concentration under MECHANICAL TECHNOLOGY |  | $\checkmark$ |  | 139 |
| Practical Nursing |  | $\checkmark$ |  | 121 |
| PRE-ENGINEERING | AS |  |  | 140 |
| PRE-MANAGEMENT | AA |  |  | 141 |
| Process Control <br> Concentration under ELECTRONICS TECHNOLOGY |  |  |  | 95 |
| Professional Cooking $\qquad$ |  | $\checkmark$ |  | 142 |
| Real Estate <br> also Concentration under BUSINESS ADMINISTRATION |  |  | $\checkmark$ | 58 |
| RECREATION AND LEISURE (pending CHE approval) <br> Concentrations <br> - Natural Resources Recreation Management <br> - Community Recreation <br> - Therapeutic Recreation | AAS | $\checkmark$ |  | 143 |
| Registered Nurse Refresher |  |  | $\checkmark$ | 145 |
| $\underline{\text { Residential Wiring }}$ |  | $\checkmark$ |  | 145 |
| RESPIRATORY THERAPY | AS |  |  | 146 |
| RETAIL MANAGEMENT | AAS | $\checkmark$ |  | 148 |
| Semiconductor Manufacturing <br> Concentration under MANUFACTURING TECHNOLOGY |  |  |  | 116 |
| Sheet Metal <br> Apprenticeship under Trades and Service Occupations |  |  |  | 51 |
| Small Business Management <br> Concentration under BUSINESS ADMINISTRATION |  |  |  | 58 |
| Social and Behavioral Sciences (see LIBERAL ARTS) |  |  |  | 113 |
| Special Education Concentration under ELEMENTARY EDUCATION |  |  |  | 96 |
| $\underline{\text { Stenotranscription }}$ |  | $\checkmark$ |  | 149 |
| Surgical Technology |  | $\checkmark$ |  | 150 |
| Tax Preparer for Individuals |  |  | $\checkmark$ | 151 |

## PROGRAMS OF STUDY

## Program of Study

Occupational
Certificate

Verification of
Completion

Concentration under RECREATION AND LEISURE (pending CHE approval)
TRANSPORTATION TECHNOLOGY AAS 151

Concentrations:

- Automotive Technology
- Diesel Equipment Technology

| Truck Driving | $\checkmark$ | 153 |  |
| :--- | :---: | :---: | :---: |
| Web Graphics Specialist | AAS | $\checkmark$ | 154 |
| WEB TECHNOLOGY | $\checkmark$ | 154 |  |
| Welding <br> also Concentration $u$ nder METALS TECHNOLOGY |  | 156 |  |

## 2001 CERTIFICATE/DEGREE PROGRAMS

(by Department)

## Arts \& Sciences <br> Liberal Arts, AA degree <br> Business Occupations

Accounting, certificate and AAS degree
Bookkeeping, certificate
Business Administration, certificate and ASS degree
Business Graphics
certificate and AAS degree
Computer Information Systems
certificate and AAS degree
Court Reporting, AAS degree
E-Commerce, certificate and AAS degree
Entrepreneurship, certificate
Financial Services
certificate and AAS degree
Food Service Management, certificate
Health Information Technology, AAS degree (pending CHE approval)
Hospitality and Tourism, certificate and AAS degree
International Business, certificate and AAS degree
Judicial Studies, certificate
Medical Coding, certificate
Medical Office Assistant, certificate
Office Administration, certificate and AAS degree (formerly Administrative Assistant)

Office Assistant, certificate
Paralegal Studies, AAS degree
(formerly Legal Assistant Studies)
Pre-Management, AA degree
Retail Management, certificate and AAS degree
Stenotranscription, certificate

## Health Occupations

Child, Youth and Family Development, certificate and AA degree

Clinical Laboratory Assistant, certificate
Dental Assistant, certificate
Diagnostic Medical Sonography, AS degree
Elementary Education, AA degree
Healthcare Technician, certificate
Health Unit Coordinator, certificate (formerly Health Unit Clerk)

Medical Laboratory Technician, AS degree
Nursing, AS degree
Nursing Assistant, certificate
Pharmacy Technician, certificate
Phlebotomy, certificate
Practical Nursing, certificate
Respiratory Therapy, AS degree
Surgical Technology, certificate

## Technologies

Architectural Engineering Drafting Technology, certificate and AAS degree
Computing Technology, certificate and AAS degree
Construction Management Technology, AAS degree
Design Drafting Engineering Technology, AAS degree
Electronics Engineering Technology, AAS degree
Electronics Technology, certificate and AAS degree
Manufacturing Technology, certificate and AAS degree
Networking Technology, certificate and AAS degree
Photonics, certificate and AAS degree
Pre-Engineering, AS degree
Web Technology, certificate and AAS degree

## Trades \& Service Occupations

Air Conditioning, Heating, and Refrigeration, certificate

Automotive Technology, certificate
Baking, certificate
Carpentry, certificate
Construction Technology, AAS degree
Cosmetology, AAS degree
Criminal Justice, AAS degree
Culinary Arts, AAS degree
Diesel Equipment Technology, certificate
Electrical Trades, certificate
Environmental Safety and Health, AAS degree
Fire Science, AAS degree
Fitness Technician, certificate
Landscaping, certificate

## 2001 CERTIFICATE/DEGREE PROGRAMS

(by Department)

Machine Tool Technology, certificate<br>Mechanical Technology, AAS degree<br>Metals Technology, AAS degree<br>Plumbing, certificate<br>Professional Cooking<br>(formerly Quantity Foods Prep), certificate<br>Recreation and Leisure, certificate and AAS degree<br>Residential Wiring, certificate<br>Transportation Technology, AAS degree<br>Truck Driving, certificate<br>Welding, certificate

## 2001 CERTIFICATE/DEGREE PROGRAMS ACCREDITED BY OUTSIDE AGENCIES/ORGANIZATIONS

## DEPARTMENT/PROGRAMS

## Business Occupations

Accounting, certificate and AAS degree
Business Administration,
certificate and ASS degree
Computer Information Systems
Court Reporting, AAS degree
Paralegal Studies, AAS degree
(formerly Legal Assistant Studies)
Office Administration
(formerly Administrative Assistant),
certificate and AAS degree
Pre-Management, AA degree

## Health Occupations

Medical Laboratory Technician, AS degree
Nursing, AS degree

Practical Nursing, certificate

Respiratory Therapy, AS degree

Surgical Technology, certificate

## Technologies

Construction Management Technology, AAS degree
Design Drafting Engineering Technology, AAS degree

Electronics Engineering Technology, AAS degree

ACCREDITING AGENCIES/ORGANIZATIONS

Assn. of Collegiate Business Schools and Programs
Assn. of Collegiate Business Schools and Programs

Assn. of Collegiate Business Schools and Programs
National Court Reporters Association (NCRA)
American Bar Association (ABA)

Assn. of Collegiate Business Schools and Programs

Assn. of Collegiate Business Schools and Programs

National Accreditation Agency for Clinical Laboratory Sciences
National League for Nursing Accreditation Commission (NLNAC)
Approved by the New Mexico State Board of Nursing
National League for Nursing Accreditation
Commission (NLNAC)
Approved by the New Mexico State Board of Nursing
Commission on Accreditation of Allied Health
Education Programs (CAAHEP)
Committee on Accreditation for Respiratory Care (COARC)
Commission on Accreditation of Allied Health Education
Programs (CAAHEP)

## Trades \& Service Occupations

Automotive Technology, certificate

Culinary Arts, AAS degree
Truck Driving, certificate

[^3]
## ACCOUNTING

## Business Occupations Department

The Accounting program offers opportunities for a challenging career that has potential for advancement. Many of the Business Occupations Department accounting courses may be used to fulfill the education requirement for the Certified Public Accountancy (CPA) and Certified Management Accounting (CMA) exams. However, a bachelor's degree is required for both exams and must be obtained from an accredited four-year postsecondary educational institution.

Information about this program is available from the associate dean at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.

A recommended sequence of courses and schedule per term for the certificate/associate of applied science degree in Accounting is as follows:

## Certificate

Term 1: ACCT 101, 111, BA 113 or 133, BA 150
Term 2: ACCT 102, 170, 180, BA 211, BA 131
Term 3: ACCT 240 or 150/151, ACCT 254, ACCT 256 or CIS 157, BA 121 or ENG 101, CIS 155, 156, ACCT elective Term 4: ACCT 255, A\&S electives

## Additional Degree Requirements

Term 4: ACCT 201, 260, MATH 119 or higher (except MATH 215 and 296)
Term 5: A\&S electives
CERTIFICATE AND DEGREE REQUIREMENTS
Course No. Course Name Credit Hours
ACCT 101 Accounting I or ACCT 101A and ACCT 101B 6
ACCT 102 Accounting II ..... 3
ACCT 111 Business Math ..... 3
ACCT 170 Payroll Accounting ..... 3
ACCT 180 Accounting Applications ..... 3
ACCT 240 Tax Accounting I (ACCT 240 required for degree) or ACCT 150/151 .....  3
ACCT 254 Electronic Spreadsheets ..... 3
ACCT 255 Computerized Accounting .....  3
ACCT 256 Management Database Applications (5 weeks) or CIS 157 Advanced Access ..... 1
BA 113 Introduction to Business or BA 133 Principles of Management ..... 3
BA 121 Business English
or ENG 101 College Writing (ENG 101 required for degree) .....  3
BA 131 Business Interpersonal Skills ( 7.5 weeks) .....  2
BA 150 Introduction to Computers (or CP 176, or CSCI 101) ..... 4
BA 211 Business Law .....  3
CIS 155 Access Fundamentals (5 weeks) [previously MMS 159] ..... 1
CIS 156 Intermediate Access (5 weeks) [previously MMS 168] ..... 1
Approved Accounting Elective(s) ..... 3
*Approved A\&S Electives ..... 0-6
Total Required for Certificate ..... 48-54
*For a certificate, students must have at least 6 credit hours of $A \& S$ courses. Degree students must have at least 15 credit hours of $A \& S$ courses.
Additional Degree Requirements
ACCT 201 Intermediate Accounting I ..... 4
ACCT 260 Cost Accounting .....  3
MATH 119 Methods of Problem Solving or higher (except MATH 215 and 296) ..... 3-4
Approved Arts \& Sciences electives ..... 3-9
Total Required for Degree ..... 61-74
Approved Electives for Accounting
ACCT 150 VITA Tax Preparation ..... 2
ACCT 151 VITA Tax Internship ..... 1
ACCT $157 \quad$ Beginning Quickbooks (5 weeks) [previously BA 157] ..... 1
ACCT 158 Intermediate Quickbooks (5 weeks) [previously BA 159] ..... 1
ACCT 159 Advanced Quickbooks (5 weeks) ..... 1
ACCT 201 Intermediate Accounting I (for certificate) [required for degree] ..... 4
ACCT 202 Intermediate Accounting II ..... 4
ACCT 241 Tax Accounting II ..... 3
ACCT 260 Cost Accounting (for certificate) [required for degree] ..... 3
ACCT 270 Governmental Accounting ..... 3
ACCT 271 Auditing ..... 3
ACCT 280 Managerial Accounting ..... 3
ACCT 296 Accounting Topics ..... 1-6
ACCT 297 Special Problems ..... Variable
ACCT 298 Internship ..... 4
ACCT 299 Cooperative Education ..... 4
BA 215 Money and Banking ..... 3
CIS Course(s) (except CIS 150 and 151) ..... 1-3
Approved Arts and Sciences Electives
ECON 200 Macroeconomics .....  3
ECON 201 Microeconomics .....  3
ENG 101 College Writing (if not previously used in program) ..... 3
ENG 102 Analytic and Argumentative Writing ..... 3
ENG 219 or 220 or COMM Elective .....  3
Biology and Physical Sciences ..... 3-7
Social and Behavioral Sciences ..... 3-6
Humanities .....  3
Foreign Language (non-English) ..... 3-4
AIR CONDITIONING, HEATING AND REFRIGERATION

## Trades \& Service Occupations Department

> The Air Conditioning, Heating and Refrigeration certificate program prepares students for entry into the installation, maintenance and service field. Courses also may be applied toward a degree in Mechanical Technology.

Training includes safety, installing mechanical equipment, piping and electrical controls, servicing various air conditioning, heating and refrigeration components, troubleshooting systems and performing required preventive maintenance. Most activities take place on campus, but some 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 are fees for EPA certification and industry competency exams for all refrigeration and air conditioning technicians. The certification is required before graduates enter the work force.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3716.

A suggested schedule includes:
Term 1: ACHR 131, 132, 133, 134, 135, 136, 137
Term 2: ACHR 151, 152, 153, 154, 155, 156
Term 3: ACHR 210, 211, 212, 213, 214, 215, 216
Course No. Course Name
Credit Hours
ACHR 131 Refrigeration Fundamentals ......................................................................................................... 2
ACHR 132 Basic Electricity .............................................................................................................................. 2
ACHR 133 Refrigerant Management ................................................................................................................. 2
ACHR 134 Motors and Controls ....................................................................................................................... 2
ACHR 135 Refrigeration Applications ..... 2
ACHR 136 Control Circuit Applications ..... 2
ACHR 137 Code and Safety Requirements I ..... 1
ACHR 151 Air Conditioning ..... 2
ACHR 152 Air Conditioning Controls ..... 2
ACHR 153 Gas Heating Systems .....  2
ACHR 154 Gas Heating Control Systems ..... 2
ACHR 155 Commercial Refrigeration .....  2
ACHR 156 System Design ..... 3
ACHR 210 Pumps and Valves ..... 2
ACHR 211 Basic Hydronic Principles ..... 2
ACHR 212 Hot Water and Steam Generation Systems ..... 2
ACHR 213 Controls I .....  2
ACHR 214 Chilled Water Systems .....  2
ACHR 215 Controls II ..... 2
ACHR 216 Code and Safety Requirements II ..... 1
Total ..... 39
Optional Courses
ACHR 171L Basic Refrigeration Maintenance ..... 3
ACHR 172L Basic Air Conditioning, Heating and Refrigeration ..... 3
ACHR 173L Commercial Refrigeration .....  3
ACHR 296 Special Topics ..... 1-6
ACHR 297 Special Problems ..... Variable

## APPRENTICESHIPS

## Trades \& Service Occupations Department

Note: Students enrolled in apprenticeships may not qualify for financial aid or Veterans Administration benefits. Apprenticeship courses are taken in order starting with "A" (see Schedule of Classes). Department approval is required to register for advanced courses not in the appropriate sequence.

Students pay the TVI registration fee each term.

## COMMERCIAL CARPENTRY APPRENTICESHIP

The Commercial Carpentry Apprenticeship (course prefix CCAP), for persons currently employed in the industry, is offered in conjunction with the Rio Grande Chapter of Associated Builders and Contractors Inc. (ABC) and Associated General Contractors (AGC).

The program provides related classroom instruction. Students must purchase textbooks and instructional materials through the local ABC or AGC chapter.

## ELECTRICAL TRADES APPRENTICESHIP

The Electrical Trades Apprenticeship (course prefix ETAP), for persons currently employed full-time in the electrical industry, is offered in conjunction with the Independent Electrical Contractors (IEC) and the Rio Grande chapter of Associated Builders and Contractors Inc. (ABC).

The program provides related classroom instruction. Students must purchase books and instructional materials through the IEC or ABC office.

## GENERAL TRADES APPRENTICESHIP

The General Trades Apprenticeship (course prefix GTAP), for persons currently employed in the industry, is offered in conjunction with local industry.
The program provides related classroom instruction. Students must purchase textbooks and instructional materials.

## IRON WORKER APPRENTICESHIP

The Iron Worker Apprenticeship (course prefix IWAP), for persons currently employed in the industry, is offered in conjunction with the Rio Grande chapter of Associated Builders and Contractors Inc. (ABC) and Iron Workers Local 495.

The program provides related classroom instruction. There is a TVI registration fee each term. Students must purchase textbooks and instructional materials through the local ABC chapter and Iron Workers Local 495.

## PLUMBING APPRENTICESHIP

The Plumbing Apprenticeship (course prefix PLAP), 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) and Local 412 Joint Apprenticeship Training Committee.

Students must purchase textbooks and instructional materials through the local ABC chapter or local 412 JATC.

## SHEET METAL APPRENTICESHIP

The Sheet Metal Apprenticeship (course prefix SMAP), 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. Students must purchase textbooks and instructional materials through the local ABC chapter.

## ARCHITECTURAL/ENGINEERING DRAFTING TECHNOLOGY

## Technologies Department

Architectural/Engineering Drafting Technology offers career preparation for persons with a strong interest in building design and construction.
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. To prepare students for work in the construction industry, the development and use of communication, teamwork and problem-solving skills are incorporated throughout the program.

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 with the opportunity for advancement into jobs with increasing responsibility and wider scope.

To enter Architectural/Engineering Drafting Technology courses, the student must meet the prerequisites of MATH 100B, ENG 100, RDG 099 or equivalent, and CP 176 or equivalents.

Students must purchase their own drafting tools and construction hard hats.
Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program chair at 224-3340.

## RESIDENTIAL DRAFTING VERIFICATION OF COMPLETION

This verification is specific to the design, materials, methods, and codes of residential construction and drafting. It focuses on the development of working drawings and construction documentation for housing applications. Completion of this verification prepares students for entry-level positions as residential drafting technicians and is useful for those considering projects as owner/builders.

## Verification of Completion Requirements

Course No. Course Name
Credit Hours
ARDR 107L Architectural Drafting I ..... 4
ARDR 108 Architectural Mathematics .....  3
ARDR 109 Building Materials and Methods I ..... 3
ARDR 180 Fundamentals of Computer-Assisted Drafting ..... 3
Total for Verification of Completion ..... 13

## COMPUTER -ASSISTED DRAFTING VERIFICATION OF COMPLETION

The Computer Aided Drafting (CAD) Verification of Completion is designed to prepare students to succeed as CAD technicians. Development of two and three-dimensional CAD skills is the primary focus of the program.
Completion of this verification prepares students for entry-level positions as CAD drafters/technicians and offers career opportunities in the fields of architecture, engineering and construction. The verification of completion is also conducive to those seeking professional and technical upgrading in the design professions.
Course No. Course Name Credit Hours
ARDR 180 Fundamentals of Computer-Assisted Drafting ..... 3
ARDR 181 Intermediate Computer-Assisted Drafting ..... 3
ARDR 182L Advanced Computer-Assisted Drafting .....  2
ARDR 183 Fundamentals of Microstation CAD ..... 3
ARDR 184 Intermediate Microstation CAD ..... 3
Total for Verification of Completion ..... 14
CERTIFICATE AND DEGREE REQUIREMENTS
Course No. Course Name Credit Hours
Term 1
ARDR 107L Architectural Drafting I .....  4
ARDR 108 Architectural Mathematics ..... 3
ARDR 109 Building Materials and Methods I ..... 3
ARDR 180 Fundamentals of Computer-assisted Drafting ..... 3
Term 2
ARDR 115 Building Materials and Methods II ..... 3
ARDR 213 CAD Analysis ..... 4
ARDR 214L Architectural CAD Drafting II ..... 7
Term 3
ARDR 119L Architectural CAD Drafting III ..... 7
ARDR 182L Advanced CAD ..... 2
ARDR 208L Architectural Design ..... 2
ARDR 221L Architectural/Engineering Drafting Seminar ..... 1
Total for Certificate ..... 39
Additional Associate Degree Requirements
ART 260 Architectural History: Ancient Through Modern ..... 3
PHYS 102 Introduction to Physics ..... 3
ARDR 113L Site Analysis .....  2
ARDR 201 Structural Systems Analysis ..... 4
ARDR 203L Structural Systems CAD Drafting .....  5
ARDR 212L M/E CAD Systems Drafting ..... 5
ARDR 215 M/E Systems Analysis .....  4
COMM 232 Business and Professional Communication Studies or ENG 101 College Writing ..... 3
MATH 120 Intermediate Algebra ..... 3
PHIL 156 Logic and Critical Thinking ..... 3
or PSY 105 Introduction to Psychology ..... 3
Total for Associate Degree ..... 74
Optional Courses
ARDR 181 Intermediate Computer-assisted Drafting .....  3
ARDR 183 Fundamentals of Microstation Computer-Assisted Drafting ..... 3
ARDR 184 Intermediate Microstation Computer-Assisted Drafting ..... 3
ARDR 275 Design Applications for Interiors ..... 3
ARDR 296 Topics ..... 1-7
ARDR 297 Special Problems ..... 1-7
ARDR 298 Internship ..... 3
ARDR 299 Cooperative Education ..... 3
CP 177L Introduction to Computer Animation/Graphics .....  3
CP 178L Computer Animation I ..... 3
GIS 201 Introduction to Geographic Information Systems .....  3
GIS 202 Geographic Information Systems Software Applications I .....  3
GIS 203 Geographic Information Systems Software Applications II ..... 3

## AUTOMOTIVE SERVICE FUNDAMENTALS

## Trades \& Service Occupations Department

completion of AUTC 121L, 122L, and 175L will provide the student with essential automotive skills needed by repair shops that specialize in maintenance and light repairs. The courses highlight workplace safety, industry repair procedures, tool and equipment use, and employment skills valued by employers. Students diagnose and service electrical, air conditioning and heating systems.

The brakes (AUTC 121L) and suspension (AUTC 122L) courses are part of the core automotive certificate program as well as the applied science degree in Transportation Technology.

Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits. Application for verification of completion may be made with the director upon successful completion of the three courses.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3718.
Course No. Course Name Credit Hours
AUTC 121L Brake Systems ................................................................................................................................. 4
AUTC 122L Suspension \& Alignment .................................................................................................................. 4
AUTC 175L Service Fundamentals ...................................................................................................................... 4
$\qquad$

## AUTOMOTIVE TECHNOLOGY

## Trades \& Service Occupations Department

The Automotive Technology certificate program is designed to prepare individuals for entry-level career positions as light truck and automobile technicians. This three-term course of study emphasizes appropriate testing and repair of automobiles as well as professionalism, work ethics and personal safety. Courses also may be applied toward a degree in Transportation Technology.

This program is certified by the National Automotive Technicians Education Foundation (NATEF) as a master certified program in all eight specialty areas: automatic transmission/transaxle, brakes, electrical/electronic systems, engine performance, engine repair, heating and air conditioning, manual drive train and axles, and suspension and steering.

Students attending the Automotive Technology program should be free from chronic respiratory problems and not be allergic to automotive chemicals and cleaning solvents. Most automotive industry employers require that their employees possess a valid driver's license and have a clean driving record. Students needing information on equivalents for past courses should see the program director.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3718.

A suggested schedule per term includes:
Term 1: AUTC 121L, 122L, 123L, 126L
Term 2: AUTC 131L, 132L, 133L, 134L
Term 3: AUTC 221L, 222L, 223L

Course No. Course Name

Credit Hours

AUTC 121L Brake Systems ................................................................................................................................ 4
AUTC 122L Suspension and Alignment .............................................................................................................. 4
AUTC 123L Manual Transmissions ...................................................................................................................... 4
AUTC 126L Automotive Electrical ................................................................................................................... 4
AUTC 131L Engine Repair ............................................................................................................................... 4
AUTC 132L Automatic Transmissions .............................................................................................................. 4
AUTC 133L Automotive Electronics ................................................................................................................. 4
AUTC 134L Air Conditioning and Heating ........................................................................................................ 3
AUTC 221L Engine Performance I ..................................................................................................................... 4
AUTC 222L Engine Performance II ................................................................................................................... 4
AUTC 223L Engine Performance III .................................................................................................................. 4
Total ................................................................................................................................................ 43

AUTC 170 Transportation Trades Machining ................................................................................................ 3
AUTC 172 Air Care Inspector .......................................................................................................................... 1
AUTC 174L Alternative Fuels .............................................................................................................................. 2
AUTC 296 Special Topics ............................................................................................................................ 1-6
AUTC 297 Special Problems ................................................................................................................ Variable

## BAKING

## Trades \& Service Occupations Department

This certificate program prepares students for entry-level employment in restaurants, bake shops and institutional kitchens. Students learn safety and professional skills in a bake shop furnished with modern equipment. Courses also may be applied toward a degree in Culinary Arts.

Students are required to purchase as least two sets of chef's uniforms, including all leather, black or white, uniform/work shoes (no tennis shoes), textbooks, and tools. Students may purchase these items before the before the beginning of classes at a place of $t$ heir choice (TVI Bookstore has textbooks). A list of required tools, uniforms, and textbooks is available from TVI advisors (Student Services Building) or from the Trades \& Service Occupations Department. Uniforms cost approximately $\$ 100$, uniform shoes cost approximately $\$ 80$ to $\$ 100$, and tools cost approximately $\$ 85$.

Students must be free of chronic allergies. A physician's certificate must be presented to TVI before the start of lab classes stating that the student is free from tuberculosis in a transmissible form.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3762.

A suggested schedule per term includes:
Term 1: BKNG 101, 102, 103L, 104L, 105L, 106L, FSMG 101A, 101B
Term 2: BKNG 111, 112L, 113L, 114L, 115L, computer course
Course No. Course Name Credit Hours

BKNG 101 Baking Theory I ................................................................................................................................. 2
BKNG 102 Food Service Math.......................................................................................................................... 2
BKNG 103L Breads ............................................................................................................................................. 2
BKNG 104L Sweet Yeast Goods ......................................................................................................................... 2
BKNG 105L Cake Batters ...................................................................................................................................... 2
BKNG 106L Pies and Pastries ............................................................................................................................. 2
FSMG 101A Food Sanitation Principles .............................................................................................................. 2
FSMG 101B Applied Food Safety ........................................................................................................................ 1
BKNG 111 Baking Theory II .............................................................................................................................. 2
BKNG 112L Yeast Doughs ................................................................................................................................... 2
BKNG 113L Advanced Cake Batters .................................................................................................................. 2
BKNG 114L Pastries and Cookies ..................................................................................................................... 2
BKNG 115L Icings and Fillings .......................................................................................................................... 2
Computer Requirement
BA 150 Introduction to Computer Processing
or CP 176 Introduction to Technology Computer Applications
or CSCI 101 Computer Literacy
$\qquad$
Optional Courses
BKNG 296 Special Topics ............................................................................................................................ 1-6
BKNG 297 Special Problems ................................................................................................................. Variable

## BOOKKEEPING

Business Occupations Department
T he Bookkeeping program provides basic accounting and computer skills for entry-level employment. The courses in this program may integrate into other Business Occupations programs.
Each student receives an introduction to broad business operations, the basics of bookkeeping, computer and written and verbal communication skills.
Information about this program is available from the associate dean at 224-3811 and from the Advisement Centers at 224-3177 or 224-5646.
A recommended course sequence and schedule per term for the Bookkeeping certificate is as follows:
Term 1: ACCT 101, 111, BA 150
Term 2: ACCT 102, 170, 180, BA 121 or ENG 101, BA 113 or BA 133
Term 3: ACCT 254, 298 or 299, BA 131, approved elective
CERTIFICATE REQUIREMENTS
Course No. Course Name Credit Hours
ACCT 101 Accounting I
or ACCT 101A and ACCT 101B ..... 6
ACCT 102 Accounting II ..... 3
ACCT 111 Business Math ..... 3
ACCT 170 Payroll Accounting ..... 3
ACCT 180 Accounting Applications ..... 3
ACCT 254 Electronic Spreadsheets ..... 3
ACCT 298 Internship or ACCT 299 Cooperative Education ..... 4
BA 113 Introduction to Business or BA 133 Principles of Management ..... 3
BA 121 Business English or ENG 101 College Writing .....  3
BA 131 Business Interpersonal Skills (7.5 weeks) ..... 2
BA 150 Introduction to Computers (or CP 176, or CSCI 101) ..... 4
Approved Electives ..... 3
Total Required for Certificate ..... 40
Approved Electives
ACCT 150 VITA Tax Preparation ..... 2
ACCT 151 VITA Tax Internship ..... 1
ACCT $157 \quad$ Beginning Quickbooks (5 weeks) [previously BA 157] ..... 1
ACCT 158 Intermediate Quickbooks (5 weeks) [previously BA 159] .....  1
ACCT 159 Advanced Quickbooks (5 weeks) ..... 1
ACCT 201 Intermediate Accounting I ..... 4
ACCT 202 Intermediate Accounting II ..... 4
ACCT 240 Tax Accounting I .....  3
ACCT 241 Tax Accounting II ..... 3
ACCT 255 Computerized Accounting ..... 3
ACCT 260 Cost Accounting .....  3
ACCT 270 Governmental Accounting ..... 3
ACCT 271 Auditing ..... 3
ACCT 280 Managerial Accounting ..... 3
ACCT 296 Accounting Topics ..... 1-6
ACCT 297 Special Problems ..... Variable
CIS Courses (except CIS 150 and 151) ..... 1-3

## BUSINESS ADMINISTRATION

## Business Occupations Department

The Business Administration program introduces students to the various aspects of the free enterprise system. Students are provided with a fundamental knowledge of business functions and processes and an understanding of business organizations in today's global economy. Course work includes business concepts such as accounting, business law, management, marketing and sales. Skills related to the applications of these concepts are developed through study of computer applications, communications, team building and decision making. If individuals are currently working in a business-related occupation, the program provides opportunities for these individuals to upgrade their skills for advancement.

The concentrations provide students the opportunity to specialize in a particular business discipline by choosing from the following options: Continuous Quality Improvement, General Business, Management, Real Estate and Small Business Management. Students can apply for entry-level employment in a variety of businesses depending on their area of concentration. The unique characteristic of the Business Administration program is that students choose their area of interest.

The New Mexico Real Estate Commission (NMREC) for either pre-licensing or continuing education requirements approves all courses in the real estate concentration. The New Mexico Real Estate Appraisers Board (NMREAB) approves all courses offered in real estate appraisal.

Information about this program is available from the associate dean at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.

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

## Certificate

Term 1: ACCT 101A, 111, BA 113, 150
Term 2: ACCT 101B, BA 121, 131, 133, CIS 130, 140
Term 3: ACCT 102, BA 211, 222, COMM elective, ENG 101
Term 4: Concentration courses

## Additional Degree Requirements

Term 5: Specific degree courses

## CERTIFICATE AND DEGREE REQUIREMENTS <br> Business Administration Core

Course No. Course Name Credit Hours
$\qquad$
ACCT 101B Accounting I B .................................................................................................................... 3
ACCT 102 Accounting II ..................................................................................................................... 3
ACCT 111 Business Math .................................................................................................................................. 3
BA 113 Introduction to Business ................................................................................................................... 3
BA 121 Business English ............................................................................................................................ 3
BA 131 Business Interpersonal Skills (7.5 weeks) .................................................................................... 2
COMM Elective .............................................................................................................................. 3
BA 133 Principles of Management ............................................................................................................... 3
BA 150 Introduction to Computers (or CP 176, or CSCI 101).................................................................... 4
BA 211 Business Law .................................................................................................................................... 3
BA 222 Principles of Marketing .................................................................................................................. 3
CIS 130 Microsoft Windows (5 weeks) [previously MMS 150] ................................................................. 1
CIS 140 PowerPoint Presentations (5 weeks) [previously MMS 157].......................................................... 1
ENG 101 College Writing ............................................................................................................................... 3
Subtotal Required for Certificate ............................................................................................... 41
Concentrationsfor Certificate or Degree (OneConcentration Required)
Continuous Quality Improvement (CQI) Concentration
BA 101 Introduction to Quality Management (5 weeks)............................................................................. 1
BA 102 Fundamentals of Continuous Quality Improvement (5 weeks) ...................................................... 1
BA 103 Quality Tools (5 weeks) ................................................................................................................ 1
BA 104 Team Building for Quality (5 weeks) .............................................................................................. 1
BA 105 Re-engineering for Quality (5 weeks) ..... 1
BA 106 Quality Leadership (5 weeks) ..... 1
Approved Electives ..... 6
Total Required for Certificate ..... 53
General Business Concentration
BA 298 Internship or BA 299 Cooperative Education ..... 4
Approved Electives ..... 9
Total Required for Certificate ..... 54
Management Concentration
BA 233 Organizational Behavior .....  3
BA 236 Human Resource Management ..... 3
BA 255 Supervision ..... 3
Approved Electives ..... 3
Total Required for Certificate ..... 53
Real Estate Concentration
BA 270 Real Estate Law ..... 3
BA 271 Real Estate Practice ..... 3
Approved Electives ..... 6
Total Required for Certificate ..... 53
Small Business Management Concentration
BA 252 Customer Relations ..... 3
BA 286 Advertising ..... 3
ENTR 101 Entrepreneurship ..... 6
Total Required for Certificate ..... 53
Additional Degree Requirements
BA 122 Business Writing
or ENG 119 Technical Communications .....  3
BA 284 Sales ..... 3
ECON 200 Macroeconomics or higher level ..... 3
MATH 119 Methods of Problem Solving or higher (except MATH 215 and 296) ..... 3-4
PHIL 245B Business Ethics .....  3
Total Required for Degree ..... 68-70
Approved Electives
ACCT 150 or higher ..... 3
FSMG 101A Food Sanitation Principles ( 7.5 weeks) ..... 2
FSMG 101B Applied Food Safety (7.5 weeks) ..... 1
*BA Courses ..... 1-4
*CIS Courses ..... 1-3
*ECM Courses ..... 3
*ENTR Courses ..... 3
HT Courses ..... 3
IB Courses ..... 3
*Courses not chosen to fulfill certificate or degree requirement may be taken as an elective.
BUSINESS APPLICATIONS DESIGN
Business Occupations DepartmentThe Business Occupations Department offers a Verification of Completion upon completion of a cluster ofcourses from 6 to 28 credit hours that offer skills and competencies in a specific career area. These courseclusters may be (1) part of a pathway to a business certificate or an associate of applied science degree or (2) acombination of courses that provide skills and competencies from several business certificates or associate ofapplied science degrees.

A Verification of Completion provides opportunities for students to gain skills and competencies needed for emerging business strategies and is awarded by the Business Occupations Department. Application for a Verification of Completion may be made with the department upon completion of the course cluster.

Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits. Information about these courses is available from the Business Occupations Department at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.

| Course No. Course Name | Credit Hours |
| :--- | :--- |

CIS 142 Presentation Graphics [previously MMS 257] .............................................................................. 3
CIS 255 Desktop Publishing [previously MMS 255] .................................................................................. 3
CIS 260 Beginning PhotoShop (5 weeks) [previously MMS 173] ............................................................ 1
CIS 261 Intermediate PhotoShop (5 weeks) [previously MMS 174] .......................................................... 1
CIS 262 Advanced PhotoShop (5 weeks) [previously MMS 175] ............................................................... 1
CIS 274 Computer Illustration ...................................................................................................................... 3
Total .............................................................................................................................................. 12

## BUSINESS GRAPHICS

## Business Occupations Department

The Business Graphics (BGC) program combines creative design, language skills and production training. Students are prepared to design documents for marketing, advertising, presentation, multimedia, web and print. Practical production and troubleshooting techniques are emphasized. The early courses focus on language skills and creativity. A keyboarding skill of 25 words per minute is required for entry into the program. Keyboarding courses are available in the Business Occupations Department.

Information about this program is available from the associate dean at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.

A suggested schedule per term for the Business Graphics certificate/associate of applied science degree includes:
Term 1: ACCT 101A, ART 121, BA 150, 121, ENG 101
Term 2: BGC 200, BA 131, CIS 255, 260, 261, 262, 274
Term 3: BGC 201, 202, 203, approved electives
Term 4: BGC 204, BA 113 or BA 133
Additional Degree Requirements
Term 4: ART 106, COMM elective, MATH 119 or higher (except MATH 215 or 296)
Term 5: ENG 221, approved electives, approved ART elective

## CERTIFICATE AND DEGREE REQUIREMENTS

Course No. Course Name Credit Hours
ACCT 101A Accounting IA ............................................................................................................................... 3
ART 121 Two Dimensional Design ............................................................................................................... 3
$\begin{array}{ll}\text { BA } 113 \\ \text { or BA } 133 & \begin{array}{l}\text { Introduction to Business } \\ \text { Principles of Management ................................................................................................................ } 3\end{array}\end{array}$
BA 121 Business English ............................................................................................................................ 3
BA 131 Business Interpersonal Skills ........................................................................................................... 2
BA 150 Introduction to Computers (or CP 176, or CSCI 101)..................................................................... 4
BGC 200 Digital Publishing ............................................................................................................................ 3
BGC 201 Advanced Digital Publishing .......................................................................................................... 3
BGC 202 Digital Drawing .............................................................................................................................. 3
BGC 203 Production PhotoShop ................................................................................................................... 3
BGC 204 Digital Printing Production ............................................................................................................ 3
CIS 255 Desktop Publishing [previously MMS 255] ................................................................................... 3
CIS 260 Beginning PhotoShop (5 weeks) [previously MMS 173] ............................................................. 1
CIS 261 Intermediate PhotoShop (5 weeks) [previously MMS 174] ........................................................... 1
CIS 262 Advanced PhotoShop (5 weeks) [previously MMS 175] .............................................................. 1
CIS 274 Computer Illustration ..................................................................................................................... 3
ENG 101 College Writing ............................................................................................................................. 3
Approved Electives ..... 3
Total Required for Certificate ..... 48
Additional Degree Requirements
ART 106 Basic Drawing ..... 3
ECON 101 Introduction to Economics ..... 3
ENG 221 Creative Writing: Fiction ..... 3
MATH 119 Methods of Problem Solving or higher (except MATH 215 and 296) ..... 3-4
COMM Elective ..... 3
Approved Art Elective ..... 3
Total Required for Degree ..... 66-67
Approved Art Electives
ART 101 Introduction to Art .....  3
ART 122 Three-dimensional Design .....  3
ART 201 History of Art I .....  3
ART 202 History of Art II .....  3
ART 250 Modern Art ..... 3
ART 251 Art of the American Southwest ..... 3
Approved Electives
BA 122 Business Writing .....  3
BA 251 Retail Management .....  3
BA 252 Customer Relations ..... 3
BA 253 Retailing .....  3
BA 284 Sales .....  3
BA 286 Advertising .....  3
BGC 296 Topics ..... 1-3
BGC 297 Special Problems ..... Variable
BGC 298 Internship ..... 4
BGC 299 Cooperative Education .....  4
CIS 126 Desktop Publishing Using Word (5 weeks) [previously MMS 154] .....  1
CIS 142 Presentation Graphics [previously MMS 257]
CIS 160 Introduction to Internet (5 weeks) [previously MMS 160] ..... 1
CIS 164 Hypertext Markup Language (HTML) (5 weeks) [previously MMS 171] ..... 1
CIS 165 Web Construction Coding (5 weeks) [previously MMS 172] ..... 1
CIS 201 Hardware/Software Administration [previously MMS 201]. .....  3
CIS 265 Fireworks (5 weeks) .....  1
CIS 270 Macromedia Authorware [previously MMS 270] ..... 3
CIS 271 Macromedia Director [previously MMS 271] ..... 3
CIS 273 Macromedia Flash .....  3
CIS 275 Adobe Premiere [previously MMS 272] ..... 3
CP 177L Intro to Computer Animation/Graphics ..... 3
CP 178L Computer Animation I .....  3

## CALL CENTER OPERATIONS

## Business Occupations Department

$T$he Business Occupations Department and the TVI Workforce Training Center collaborated to create the TVI Call Center College. This partnership allows students to receive credit for approved call center coursework attained through the Workforce Training Center.

Call Center Operations courses prepare students for entry-level positions such as customer service representative (technical and non-technical), reservation agent, collection agent, and telephone sales. The courses provide opportunities to develop keyboarding skills, basic computer skills and customer relations skills. This series of courses may be completed in 7.5 weeks or less based on student enrollment.

| Course No. | Course Name | Credit Hours |
| :---: | :---: | :---: |
| AA 101 | Beginning Keyboarding (7.5 weeks) | ................ 3 |
| AA 170 | Business Telephone Techniques (5 weeks) | 1 |
| BA 131 | Business Interpersonal Skills (7.5 weeks) | 2 |
| CIS 130 | Microsoft Windows (5 weeks) [previously MMS 150] | 1 |
|  | Approved Electives | 3 |
|  | Total | .... 10 |
| Approved Call Center Operations Electives |  |  |
| AA 171 | Working with the Challenging Customer (5 weeks) | 1 |
| AA 173 | Time Management ( 5 weeks) | 1 |
| AA 296 | Topics Course | 1-3 |
| BA 299A | Cooperative Education I | .. 1 |
| CIS 150 | Excel Fundamentals (5 weeks) (previously MMS 158] | 1 |
| * The Customer Service Representative 90-hour training course offered through the TVI Workforce Training Center can substitute for AA 170, 171, and 173. Verification of completion is required. |  |  |

## CARPENTRY

## Trades \& Service Occupations Department

The Carpentry certificate program provides students with entry-level job skills for the construction industry. Tool safety and job-site safety training in compliance with OSHA standards are stressed. Classes meet on- and offcampus in labs designed for residential and commercial construction. Courses also may be applied toward a degree in Construction Technology.
Lab classes cover the fundamentals of site layout, foundations, framing, roof systems, exterior coverings, installation of doors and windows, interior finish, cabinet construction and installation, remodeling and tools. Theory classes present technical information, Uniform Building Code (UBC) regulations, blueprint reading and material analysis.
Students must be free of chronic respiratory disease and allergies or reactions to wood or wood products, construction adhesives, paints and solvents. Students must be able to lift 50 pounds. A valid driver's license and a good driving record are required by most employers. Students purchase all textbooks for this program.
Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3716.
A suggested schedule per term includes:
Term 1: CARP 101, $102 \&$ 102L or 170, 103, 103L, 104, 104L
Term 2: CARP 111, 112, 112L, 113, 113L, 114, 114L
CERTIFICATE REQUIREMENTS
Course No. Course Name Credit Hours
CARP 101 Carpentry Blueprint Reading I ........................................................................................................ 4
CARP 102 Foundations Theory ....................................................................................................................... 1
and CARP 102L Foundations Lab .............................................................................................................................. 2
or CARP 170 Carpentry Fundamentals ................................................................................................................ 3
CARP 103 Framing Theory .............................................................................................................................. 1
CARP 103L Framing Lab .................................................................................................................................... 2
CARP 104 Exteriors Theory ............................................................................................................................. 1
CARP 104L Exteriors Lab ..... 2
CARP 111 Carpentry Blueprint Reading II .....  4
CARP 112 Interior Finish Theory ..... 1
CARP 112L Interior Finish Lab ..... 2
CARP 113 Cabinet-making and Millwork Theory .....  1
CARP 113L Cabinet-making and Millwork Lab ..... 2
CARP 114 Carpentry Remodel Theory ..... 1
CARP 114L Carpentry Remodel Lab ..... 2
Total ..... 26
Optional Courses
CARP 170 Carpentry Fundamentals .....  3
CARP 171 Construction Trades Blueprint Reading .....  3
CARP 172 Manufactured Housing Set-up ..... 1
CARP 296 Special Topics ..... 1-6
CARP 297 Special Problems ..... Variable

## CHILD, YOUTH AND FAMILY DEVELOPMENT

## Health Occupations Department

The Child, Youth and Family Development (CYFD) program facilitates the learning of theory and skills required for working with children, youth and families in certain settings. The two-year program includes classroom instruction at the Main, South Valley and Rio Rancho campuses as well as practical experience. The program leads to a certificate or an associate of arts degree with one of two specialty concentrations and/or prepares students for the national Child Development Associate (CDA) credential assessment:

- Family Studies (FS) (formerly CYFD) concentration, which facilitates the learning of theory and skills required for working in various settings with children from infancy through adolescence as well as families. The two-year concentration includes theory and application in practical settings. Students interested in transferring the FS concentration to a four-year college are urged to seek advisement from that college to ensure proper planning when beginning their studies at TVI.

■ Early Childhood Multicultural Education (ECME) concentration, designed for students who wish to work in this field or complete a bachelor's degree in early childhood education or a related field. It is accepted for transfer to all New Mexico four-year colleges/universities with similar programs. This concentration addresses the seven general early childhood education competency areas required for New Mexico Department of Education licensure in early childhood education (birth to third grade).
■ National Child Development Associate (CDA) credential assessment administered by the Council for Early Childhood Professional Recognition. This credential is designed for those currently working or planning to work with children from birth through age six in such settings as Head Start, family care homes, Even Start, child care facilities and private and public preschools. Some of these courses articulate into the FS and ECME concentrations in the associate degree program. Advanced CDA Placement: Students who can demonstrate previous training and work experiences in the field may be eligible to apply for CDA advanced placement. For information, students should contact the program director.
All persons enrolling in a concentration are strongly encouraged to attend an orientation offered each term. The enrollment requirement is a high school diploma or equivalent. Note: Federal law requires a background check on all persons seeking employment in child care facilities. Not all courses are offered each term. The coursework also promotes the study of reading, writing, speech, math, English and science. Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-4563.

## CHILD,YOUTH AND FAMILY DEVELOPMENT CERTIFICATE

Albuquerque TVI offers the Child, Youth and Family Development Certificate Program as an occupational training and job upgrading program. Curricula are designed to provide the educational skills and practical experience necessary to enter the field of early care, education and family support. Coursework promotes the study of reading, writing, math and English.
The Early Childhood Multicultural Education concentration addresses the seven general early childhood education competency areas. The Family Studies concentration facilitates the learning of theory and skills required for working in various settings with children from infancy through adolescence as well as families.

CDV 126 Childhood Growth and Development ..... 3

- Observing Young Children...3
CDV 129C Practicum ..... 2
Emergent Literacy in Early Childhood ..... 3
CDV 209 Early Childhood Learning Environments II ..... 3CDV 215 Intro to the Early Childhood Professions4
CDV 216 Individual and Family Diversity2
(Note: The 29 credits above comprise the articulated transfer module to New Mexico four-year institutes. )
CDV 212 Special Issues in Child and Family Development ..... 3Total for Certificate44ART 101 or 201 or 202 or 251 or THEA 1223-6
Social and Behavioral Science: two courses from listing below: ..... 6
Microeconomics; GEOG 102 Human Geography;PHIL 156 Logic and Critical Thinking; PSCI 110 The Political World orBiological Science, Physical Science or Astronomy (two credits in lab are required) 8
Select one of the following courses for FS concentration; two required for ECME concentration:
COMM 130 (or higher) Public Speaking ..... 3
ENG 101 College Writing ..... 3
ENG 102 Analytic and Argumentative Writing ..... 3
MATH 111 Math for Elementary/Mid-school Teachers or higher .....  3
HIST 101 or 102 or 161 or 162 or 260 ..... 3
Subtotal ..... 32-35
Concentration:Family Studies (formerly CYFD)
CDV 103 Pre-School Growth and Development .....  3
CDV 105L Infant Growth and Development, Theory and Lab ..... 4
CDV 106 Healthy Young Children ..... 3
CDV 129C Practicum I ..... 2
CDV 201 Middle Childhood Growth and Development ..... 3
CDV 202 Adolescent Growth and Development .....  3
CDV 203C Practicum II ..... 2
CDV 207 Management of Early Childhood Programs .....  3
CDV 212 Special Issues in Child and Family Development ..... 3
CDV 218 Strengthening Family Structures
or CDV 219 Marriage and Families .....  3
CDV Electives (see below) ..... 9
Subtotal ..... 38
Total for Degree ..... 70
Electives
CDV 101 Parents and Young Children .....  3
CDV 128 Early Childhood Learning Environments I .....  3
CDV 132 Emerging Literacy in Early Childhood ..... 3
CDV 204 Introduction to Classroom Learning ..... 3
CDV 206 Education of The Exceptional Person .....  3
CDV 209 Early Childhood Learning Environments II .....  3
CDV 210 Guidance in Early Childhood ..... 3
CDV 216 Individual and Family Diversity .....  3
CDV 217 Diversity in Early Childhood Programs and Assessment ..... 2
CDV 218 Strengthening Family Structures ..... 3
CDV 219 Marriages and Families .....  3
CDV 296 Topics ..... 1-3
CDV 298 Independent Study .....  3
CDV 299 Cooperative Education ..... 1-3
Concentration:Early Childhood Multicultural Education
CDV $126 \quad$ Childhood Growth and Development .....  3
CDV 127L Observing Young Children. ..... 1
CDV 128 Early Childhood Learning Environments I ..... 3
CDV 129C Practicum I. .....  2
CDV 132 Emerging Literacy in Early Childhood .....  3
CDV 203C Practicum II .....  2
CDV 209 Early Childhood Learning Environments II .....  3
CDV 210 Guidance in Early Childhood ..... 3
CDV 215 Intro to the Early Childhood Professions ..... 4
CDV 216 Individual and Family Diversity .....  3
CDV 217 Diversity in Early Childhood Programs and Assessment .....  2
(Note: The 29 credits above comprise the articulated transfer module to New Mexico four-year institutes. )
CDV 212 Special Issues in Child and Family Development ..... 3
Subtotal ..... 32
Total for Degree ..... 67
CDV 120 Introduction to CDA ..... 2
CDV 120B 45-Hour Entry-level Course ..... 3
CDV 124 Supervised Field Experience ..... 1-5
In addition, one of the following courses must be taken in the student's area of interest:
CDV 105L Infant Growth and Development ..... 4
CDV 103L Pre-School Growth and Development ..... 3
CDV 218 Strengthening Family Structures ..... 3


## CLINICAL LABORATORY ASSISTANT

## Health Occupations Department

The Clinical Laboratory Assistant (CLA) certificate program prepares students to perform basic laboratory testing in a medical laboratory under the supervision of a medical technologist, medical laboratory technician or pathologist. A CLA collects, processes blood specimens, and performs test procedures in chemistry, hematology, immunology, microbiology and urinalysis.

Students should possess the ability to communicate with clients and the manual dexterity required to handle laboratory equipment. Applicants must present evidence of current TB testing, immunizations (including hepatitis B, rubella and rubeola) and BLS CPR certification prior to the clinical portion of the program.

The CLA program is offered over $11 / 2$ terms with classes beginning in the fall term. CLA 101L and CLA 102L are held at the South Valley Campus. CLA 103C, the clinical experience, is arranged in area hospital and clinic laboratories. There is a $\$ 10$ uniform fee for CLA 101L, which pays for a nametag, hospital parking permits and preventative lab tests in case of needle stick exposure. Students are required to purchase a fluid resistant lab coat.

Prerequisites are:
■ High school diploma or equivalent
■ MATH 099 or equivalent
■ ENG 099 or equivalent
■ RDG 099 or equivalent
■ successful completion of the TVI Phlebotomy program or equivalent, recent experience as a phlebotomist, and CLA program director approval are required to enroll in CLA 103C.
Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits. Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-5068.
Courses offered: Fall term: CLA 101L, Fall term: CLA 102L, and Spring term: CLA 103C

| Course No. | Course Name | Credit Hours |
| :---: | :---: | :---: |
| CLA 101L | Introduction to Laboratory Technique | ........... 3 |
| CLA 102L | Basic Hematology/Chemistry | 3 |
| CLA 103C | Clinical Experience. | 3 |
|  | Total ......... | ............... 9 |

## COMPUTER INFORMATION SYSTEMS

## Business Occupations Department

The Computer Information Systems (CIS) program combines microcomputing theory, computer applications, accounting skills and problem solving in a business information technology environment. A keyboarding skill of 25 words per minute is required for entry into the program. Keyboarding courses are available in the Business Occupations Department.

The associate of applied science degree may be transferred to the University of New Mexico toward a Bachelor of Science degree in Education in Technology and Training within Organizational Learning and Technology.

Information about this program is available from the associate dean at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.

A suggested schedule per term for the Computer Information Systems certificate/associate of applied science degree includes:

## Business Computer Aplications Concentration Certificate

Term 1: ACCT 101, 111, BA 121, 150
Term 2: ACCT 102, CIS 120 or 123, CIS 130, 131, 142, 150, 151, 152, 160
Term 3: ACCT 157, 158, BA 131, CIS 143, 155, 156, 157, 201, ENG 101
Term 4: BA 113 or BA 133, COMM elective
Additional Degree Requirements
Term 4: CIS 164, 237, ENG 119, elective
Term 5: MATH 119 or higher (except MATH 215 and 296), PHIL 245B

## Business Information Management Concentration Certificate

Term 1: ACCT 101, 111, BA 121, 150
Term 2: ACCT 102, CIS 120 or 123, CIS 130, 131, 147, 150, 151, 152, 160, 164
Term 3: BA 131, CIS 155, 156, 157, 201, COMM elective, ENG 101
Term 4: BA 113 or BA 133, CIS 254
Additional Degree Requirements
Term 4: CIS 230, 237, elective, ENG 119
Term 5: MATH 119 or higher (except MATH 215 and 296), PHIL 245B

## Data Communications Management Concentration Certificate

Term 1: ACCT 101, 111, BA 121, 150
Term 2: ACCT 102, CIS 130, 131, 135, 136, 145, 150, 151, 160, 243
Term 3: BA 131, CIS 155, 156, 157, 201, ENG 101, elective
Term 4: BA 113 or 133, COMM elective
Additional Degree Requirements
Term 4: electives, ENG 119
Term 5: MATH 119 or higher (except MATH 215 and 296), PHIL 245B

## Multimedia Concentration Certificate

Term 1: ACCT 111, BA 121, 131, 150, COMM elective
Term 2: CIS 120 or 123, CIS 130, 142, 160, 170, ENG 101
Term 3: AA 112, CIS 201, 255, 260, 261, 271
Term 4: BA 113 or 133, CIS 273
Additional Degree Requirements
Term 4: CIS 164, 165, elective, ENG 119
Term 5: CIS 275, MATH 119 or higher (except MATH 215 and 296), PHIL 245B

## COMPUTER INFORMATION SYSTEMS CORE

Course No. Course Name Credit Hours
ACCT 111 Business Math ..... 3
BA 113 Introduction to Business
or BA 133 Principles of Management ..... 3
BA $121 \quad$ Business English ..... 3
BA 131 Business Interpersonal Skills (7.5 weeks) .....  2
BA 150 Introduction to Computers (or CP 176, or CSCI 101). ..... 4
CIS 130 Microsoft Windows (5 weeks) [previously MMS 150] ..... 1
CIS 160 Introduction to Internet (5 weeks) [previously MMS 160] ..... 1
CIS 201 Hardware/Software Administration [previously MMS 201] ..... 3
ENG 101 College Writing ..... 3
COMM Elective ..... 3
Subtotal ..... 26
Concentrationsfor Certificate or Degree (One Concentration Required)
Business Computer Applications Concentration
ACCT 101 Accounting I
or ACCT 101A and ACCT 101B ..... 6
ACCT 102 Accounting II ..... 3
ACCT $157 \quad$ Beginning Quickbooks (5 weeks) [previously BA 157] ..... 1
ACCT 158 Intermediate Quickbooks (5 weeks) [previously BA 159] ..... 1
CIS 120 WordPerfect for Windows [previously MMS 134]
or CIS 123 Microsoft Word for Windows [previously MMS 135] ..... 3
CIS 131 Intermediate Windows (5 weeks) [previously MMS 164] ..... 1
CIS 142 Presentation Graphics [previously MMS 257] ..... 3
CIS 143 MS Outlook (5 weeks) ..... 1
CIS 150 Excel Fundamentals (5 weeks) ..... 1
CIS 151 Intermediate Excel (5 weeks) ..... 1
CIS 152 Advanced Excel (5 weeks) ..... 1
CIS 155 Access Fundamentals (5 weeks) [previously MMS 159] ..... 1
CIS 156 Intermediate Access (5 weeks) [previously MMS 168] ..... 1
CIS 157 Advanced Access (5 weeks) [previously MMS 169] ..... 1
Total Required for Certificate ..... 51
Additional Degree Requirements
CIS 164 Hypertext Markup Language (HTML) (5 weeks) [previously MMS 171] ..... 1
CIS 237 Spreadsheet Macro Programming (5 weeks) [previously MMS 261] ..... 1
ENG 119 Technical Communications ..... 3
MATH 119 Methods of Problem Solving or higher (except MATH 215 and 296) ..... 3-4
PHIL 245B Business Ethics ..... 3
Approved Electives ..... 3
Total Required for Degree ..... 65-66
Business Information Management Concentration
ACCT 101 Accounting I or ACCT 101A or ACCT 101B ..... 6
ACCT 102 Accounting II ..... 3
CIS 120 WordPerfect for Windows [previously MMS 134] or CIS 123 Microsoft Word for Windows [previously MMS 135] .....  3
CIS 131 Intermediate Windows (5 weeks) [previously MMS 164] ..... 1
CIS 147 Introduction to Information Management [previously MMS 142] ..... 3
CIS 150 Excel Fundamentals (5 weeks) ..... 1
CIS 151 Intermediate Excel (5 weeks) ..... 1
CIS 152 Advanced Excel (5 weeks) ..... 1
CIS 155 Access Fundamentals (5 weeks) [previously MMS 159] ..... 1
CIS 156 Intermediate Access (5 weeks) [previously MMS 168] ..... 1
CIS 157 Advanced Access (5 weeks) [previously MMS 169] ..... 1
CIS 164 Hypertext Markup Language (HTML) (5 weeks) ..... 1
CIS 254 Business Operations Management [previously MMS 251] ..... 3
Total Required for Certificate ..... 52
Additional Degree Requirements
CIS 230 Business Database Management [previously MMS 252] ..... 3
CIS 237 Spreadsheet Macro Programming (5 weeks) [previously MMS 261] ..... 1
ENG 119 Technical Communications .....  3
MATH 119 Methods of Problem Solving or higher (except MATH 215 and 296) ..... 3-4
PHIL 245B Business Ethics ..... 3
Approved Electives ..... 3
Total Required for Degree ..... 68-69
Approved Electives for Business Computer Applications and Business Information Management Concentrations
CIS 135 Windows 2000 Professional (5 weeks) [previously MMS 162] ..... 1
CIS 136 Intermediate Windows 2000 Professional (5 weeks) ..... 1
*CIS 142 Presentation Graphics [previously MMS 257] ..... 3
CIS 145 Introduction to Computer Networking [previously MMS 140] ..... 3
CIS 180 Extensible Markup Language (XML) (5 weeks) [previously MMS 177] ..... 1
CIS 181 Business Document Presentation (5 weeks) ..... 1
CIS 182 Validating Business Documents (5 weeks) ..... 1
CIS 202 Advanced Hardware/Software Management ..... 3
CIS 220 Word Certification Prep ( 5 weeks) ..... 1
CIS 222 PowerPoint Certification Prep (5 weeks) ..... 1
CIS 224 Excel Certification Prep (5 weeks) ..... 1
CIS 226 Access Certification Prep (5 weeks) ..... 1
*CIS $230 \quad$ Business Database Management [previously MMS 252] ..... 3
CIS 232 Database Design: MS SQL Server ..... 3
CIS 239 Foundations of Network+ ..... 3
CIS 240 Data Management [previously MMS 240] ..... 3
CIS 241 NetWare Data Management [previously MMS 241] ..... 3
CIS 243 Windows Server Management [previously MMS 242] ..... 3
CIS 244 Windows TCP/IP Data Communications [previously MMS 243] ..... 3
CIS 245 Windows Server Data Management [previously MMS 244] ..... 3
CIS 246 Manage Windows Directory Services ..... 3
CIS 247 Designing Windows Server Directory Services ..... 3
CIS 248 Designing Windows Server Network ..... 3
CIS 249 Windows Server Network Security .....  3
CIS 250 Business Intranets/Extranets ..... 3
CIS 282 Windows 2000 Certification Prep ( 5 weeks) ..... 1
CIS 285 Windows Server Certification Prep (5 weeks) ..... 1
CIS 288 Windows Server Data Management Certification Prep ( 5 weeks) ..... 1
CIS 290 MS SQL Server. ..... 3
CIS 291 MS Exchange Server .....  3
CIS 296 Topics ..... 1-3
CIS 297 Special Problems ..... 1-3
CIS 298 Cooperative Education ..... 4
CIS 299 Internship ..... 4
*Cannot be used as an elective if required for degree.
Data Communications Management Concentration
ACCT 101 Accounting I
or ACCT 101A and ACCT 101B ..... 6
ACCT 102 Accounting II .....  3
CIS 131 Intermediate Windows (5 weeks) [previously MMS 164] ..... 1
CIS 135 Windows 2000 Professional (5 weeks) [previously MMS 162] ..... 1
CIS 136 Intermediate Windows 2000 Professional (5 weeks) .....  1
CIS 145 Introduction to Computer Networking [previously MMS 140] ..... 3
CIS 150 Excel Fundamentals (5 weeks) [previously MMS 158] ..... 1
CIS 151 Intermediate Excel (5 weeks) [previously MMS 166] ..... 1
CIS 155 Access Fundamentals (5 weeks) [previously MMS 159] ..... 1
CIS 156 Intermediate Access (5 weeks) [previously MMS 168] ..... 1
CIS 157 Advanced Access (5 weeks) [previously MMS 169] ..... 1
CIS 243 Windows Server Management [previously MMS 242] .....  3
Approved Electives .....  3
Total Required for Certificate ..... 52
Additional Degree Requirements
ENG 119 Technical Communications .....  3
MATH 119 Methods of Problem Solving or higher (except MATH 215 and 296) ..... 3-4
PHIL 245B Business Ethics ..... 3
Approved Electives ..... 6
Total Required for Degree ..... 67-68
Approved Electives for Data Communications Management Concentration
CIS 147 Introduction to Information Management [previously MMS 142] ..... 3
CIS 202 Advanced Hardware/Software Management ..... 3
CIS 230 Business Database Management ..... 3
CIS 232 Database Design: MS SQL Server .....  3
CIS 239 Foundations of Network+ ..... 3
CIS 240 Data Management [previously MMS 240] ..... 3
CIS 241 NetWare Data Management [previously MMS 241] ..... 3
CIS 244 Windows TCP/IP Data Communications [previously MMS 243] ..... 3
CIS 245 Windows Server Data Management [previously MMS 244] ..... 3
CIS 246 Manage Windows Directory Services ..... 3
CIS 247 Designing Windows Server Directory Services ..... 3
CIS 248 Designing Windows Server Network ..... 3
CIS 249 Windows Server Network Security ..... 3
CIS 250 Business Intranets/Extranets [previously MMS 250] .....  3
CIS 282 Windows 2000 Certification Prep (5 weeks) ..... 1
CIS 285 Windows Server Certification Prep (5 weeks) ..... 1
CIS 288 Windows Server Data Management Certification Prep ( 5 weeks) ..... 1
CIS 290 MS SQL Server. ..... 3
CIS 291 MS Exchange Server ..... 3
CIS 296 Topics [previously MMS 296] ..... 1-3
CIS 297 Special Problems ..... 1-3
CIS 298 Cooperative Education [previously MMS 298] ..... 4
CIS 299 Internship [previously MMS 299] ..... 4
Multimedia Concentration
AA 112 Office Accounting Procedures ..... 4
CIS 120 WordPerfect for Windows [previously MMS 134]
or CIS 123 Microsoft Word for Windows [previously MMS 135] ..... 3
CIS 142 Presentation Graphics [previously MMS 257] .....  3
CIS 170 Introduction to Multimedia [previously MMS 170] ..... 3
CIS 255 Desktop Publishing [previously MMS 255] .....  3
CIS 260 Beginning PhotoShop (5 weeks) [previously MMS 173] ..... 1
CIS 261 Intermediate PhotoShop (5 weeks) [previously MMS 174] ..... 1
CIS 271 Macromedia Director [previously MMS 271] ..... 3
CIS 273 Macromedia Flash ..... 3
Total Required for Certificate ..... 50
Additional Degree Requirements
CIS 164 Hypertext Markup Language (HTML) (5 weeks) [previously MMS 171] ..... 1
CIS 165 Web Construction Coding (5 weeks) [previously MMS 172] ..... 1
CIS 275 Adobe Premiere [previously MMS 272] ..... 3
ENG 119 Technical Communications .....  3
MATH 119 Methods of Problem or higher (except MATH 215 and 296) ..... 3-4
PHIL 245B Business Ethics .....  3
Approved Electives .....  3
Total Required for Degree ..... 67-68
Approved Electives for Multimedia Concentration
ACCT 101 Accounting I ..... 6
ACCT 102 Accounting II ..... 3
ACCT $157 \quad$ Beginning Quickbooks (5 weeks) [previously BA 157] ..... 1
ACCT 158 Intermediate Quickbooks (5 weeks) [previously BA 159] ..... 1
BGC 201 Postscript Illustration .....  3
BGC 202 Digital Drawing .....  3
BGC 204 Digital Printing Production .....  3
CIS 131 Intermediate Windows (5 weeks) [previously MMS 164] ..... 1
CIS 135 Windows 2000 Professional (5 weeks) [previously MMS 162] ..... 1
CIS 147 Introduction to Information Management [previously MMS 142] ..... 3
CIS 150 Excel Fundamentals (5 weeks) [previously MMS 158] ..... 1
CIS 151 Intermediate Excel (5 weeks) [previously MMS 166] ..... 1
CIS 152 Advanced Excel (5 weeks) [previously MMS 167] ..... 1
CIS 155 Access Fundamentals (5 weeks) [previously MMS 159] ..... 1
CIS 156 Intermediate Access (5 weeks) [previously MMS 168] ..... 1
CIS 157 Advanced Access (5 weeks) [previously MMS 169] ..... 1
CIS 166 Dynamic Styles ( 5 weeks) ..... 1
CIS 180 Extensible Markup Language (XML) (5 weeks) [previously MMS 177] ..... 1
CIS 181 Business Document Presentation (5 weeks) ..... 1
CIS 182 Validating Business Documents ( 5 weeks) ..... 1
CIS 190 Beginning FrontPage (5 weeks) [previously MMS 178] ..... 1
CIS 191 Intermediate FrontPage (5 weeks) [previously MMS 179] ..... 1
CIS 202 Advanced Hardware/Software Management ..... 3
CIS 230 Business Database Management [previously MMS 252] ..... 3
CIS 250 Business Intranets/Extranets [previously MMS 250] ..... 3
CIS 254 Business Operations Management [previously MMS 251] ..... 3
CIS 256 Advanced Desktop Publishing [previously MMS 256] ..... 3
CIS 262 Advanced PhotoShop (5 weeks) [previously MMS 175] ..... 1
CIS 265 Fireworks (5 weeks) ..... 1
CIS 270 Macromedia Authorware [previously MMS 270] ..... 3
CIS 272 Macromedia Dreamweaver (10 weeks) ..... 2
CIS 274 Computer Illustration ..... 3
CIS 278 Business Web Site Design [previously MMS 276] ..... 3
CIS 296 Topics Course [previously MMS 296] ..... 1-3
CIS 297 Special Problems [previously MMS 297] ..... 1-3
CIS 298 Internship [previously MMS 298] ..... 4
CIS 299 Cooperative Education [previously MMS 299] ..... 4
ECM 176 Introduction to Internet Commerce (5 weeks) [previously MMS 176] ..... 1

## COMPUTER NETWORK SERVICES

## Business Occupations Department

The Business Occupations Department offers a Verification of Completion upon completion of a cluster of courses from 6 to 28 credit hours that offer skills and competencies in a specific career area. These course clusters may be (1) part of a pathway to a business certificate or an associate of applied science degree or (2) a combination of courses that provide skills and competencies from several business certificates or associate of applied science degrees.

A Verification of Completion provides opportunities for students to gain skills and competencies needed for emerging business strategies and is awarded by the Business Occupations Department. Application for a Verification of Completion may be made with the department upon completion of the course cluster.

Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits.
Information about these courses is available from the Business Occupations Department at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.

| Course No. | Course Name | Credit Hours |
| :---: | :---: | :---: |
| CIS 135 | Windows 2000 Professional (5 weeks) [previously MMS 162] |  |
| CIS 136 | Intermediate Windows 2000 Professional (5 weeks) |  |
| CIS 243 | Windows Server Management [previously MMS 242] |  |
| CIS 245 | Windows Server Data Management [previously MMS 244] |  |
| CIS 246 | Manage Windows Directory Services |  |
| CIS 247 | Designing Windows Server Directory Services |  |
| CIS 248 | Designing Windows Server Network |  |

CIS 249 Windows Server Network Security ..... 3
CIS Approved Electives ..... 9
Total ..... 29
Approved Electives for Computer Network Services
CIS 145 Introduction to Computer Networking [previously MMS 140] .....  3
CIS 201 Hardware and Software Administration [previously MMS 201] ..... 3
CIS 202 Advanced Hardware and Software Management ..... 3
CIS 239 Foundations of Network+ ..... 3
CIS 240 Data Management [previously MMS 240] ..... 3
CIS 241 Netware Data Management [previously MMS 241] ..... 3
CIS 290 MS SQL Server ..... 3
CIS 291 MS Exchange Server ..... 3
CIS 296 Topics ..... 1-3

## COMPUTING TECHNOLOGY

## Technologies Department

n this program students acquire the technical skills to solve information and management problems using computer hardware and software. Students have the choice of two concentrations: Computer Programming and Computer Animation. Graduates are prepared for jobs as entry-level business applications programmers or as computer animation technicians, which can be the first steps to a career in the computer field.

Computers currently used at TVI are the IBM AS400, IBM microcomputers and compatibles and Silicon Graphics workstations. Mini- and microcomputers and local area networks are used in Computing Technology 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 interactions among people and machines/computers/ technology. A minicomputer environment is used to teach widely used business programming languages while additional languages are taught on microcomputers. Optional courses are available.

Students entering Computing Technology courses must satisfy the prerequisites of MATH 100B, RDG 099 or equivalent, and CP 176 or equivalent. If students take MATH 099 or MATH 100B, it is recommended that they also take CP 100.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3340.

## COMPUTER PROGRAMMING CONCENTRATION

## Certificate and Degree Requirements

Course No. Course Name Credit Hours
CP 101L ANSI COBOL (Structured Programming) ..... 6
CP 103 Mathematics for Computer Programmers ..... 3
CP 105 Fundamentals of Computer Programming ..... 6
CP 128 Personal Computer Operating Systems (A+Certification Prep) ..... 3
CP 183 Network Operating System (Network+ Certification Prep) ..... 3
CP 213 Database Management (MS Access) .....  3
CP 235 JAVA Programming I ..... 3
CP 278B C++ Programming II (Object-Oriented Programming) ..... 3
CP 284 Visual Basic I ..... 3
CP 292 System Development (Demo Portfolio) ..... 1
ACCT 103 Survey of Accounting for non-Business Majors ..... 3
ENG 101 College Writing ..... 3
ENG 119 Technical Communications ..... 3
or Communications (COMM) Elective
Total Credits for Certificate ..... 43
Additional Associate of Applied Science Degree Requirements
MATH 121 College Algebra ..... 3
or MATH 150 Advanced Algebra ..... 4
or MATH 180 Elements of Calculus I ..... 3
MATH 145 Introduction to Probability and Statistics ..... 3
or MATH 245 Fundamentals of Probability and Statistics .....  3
Social and Behavioral Sciences or Humanities Elective ..... 3
Additional 18 Credits Selected from Courses Below
These courses are arranged for students interested in specific certifications. However, students may choose 18 credits from any of the following courses:
Object Oriented Development Courses
These courses prepare students for various industry certifications including JCert (Java Certification), and JDeveloper (Oracle) Certification while providing a strong background in object oriented programming.
CP 221 Oracle: SQL and PL/SQL I ..... 3
CP 236 Object Oriented Systems Analysis \& Design (UML) ..... 3
CP 237 JAVA Programming II (JCert Exam Prep) ..... 3
CP 238 JAVA Database Applications (Oracle JDeveloper) ..... 3
CP 281 C++ Programming III (Advanced OOP) .....  3
or CP 287 Visual Basic II (Client Server Database Apps) ..... 3
CP 290 Windows MFC Programming in C++ ..... 3
Oracle Internet Application Developer Courses
These courses prepare students for Oracle Certified Professional (OCP) Developer Certification while providing the skills needed to create scalable client server and web applications using Oracle developer tools.
CP 218 Client/Server Technology (Oracle Internet Forms II) ..... 3
CP 221 Oracle: SQL and PL/SQL I ..... 3
CP 222 Oracle: SQL and PL/SQL II ..... 3
CP 223 Advanced Client/Server Applications (Oracle Internet Forms II) ..... 3
CP 224 Decision Support Systems (Oracle Internet Reports) ..... 3
CP $236 \quad$ Object Oriented Systems Analysis \& Design (UML) ..... 3
or CP 287 Visual Basic II (Client Server Database Apps) ..... 3
Advanced Database Administration Courses
These courses prepare students for Oracle Certified Professional (OCP) DBA Certification. CP $218 \quad$ Client/Server Technology (Oracle Internet Forms II) ..... 3
CP $221 \quad$ Oracle: SQL and PL/SQL I ..... 3
CP $225 \quad$ Oracle: Enterprise DBA IA (Admin) ..... 3
CP $226 \quad$ Oracle: Enterprise DBA IB (Backup) ..... 3
CP 227 Oracle: Enterprise DBA II (Tuning) ..... 3
CP 228 Oracle: Enterprise DBA III (Networking) ..... 3
CP 236 Object Oriented Systems Analysis \& Design (UML) ..... 3
A+Certification Courses
These courses prepare students for $A+$ Certification.
CP $128 \quad$ Personal Computer Operating Systems (A+ Certification Prep) ..... 3
ELEC 217 Upgrading and Repairing PCs (A+Certification Prep) ..... 3
Network+Certification Courses
These courses prepare students for Network+ Certification.
CP 182 Network Topologies (Network+ Certification Prep CCNA I) ..... 3
CP 183 Network Operating System (Network+ Certification Prep) .....  3
General Electives
CP 111L Advanced ANSI COBOL ..... 6
CP 132 Introduction to Web Scripting ..... 3
CP 135 Advanced Web Scripting ..... 3
CP 150 Data Structures .....  3
CP 214L Report Program Generator III/400 ..... 3
CP 217L Personal Computer Assembler Language ..... 3
CP 251 Computer Game Development ..... 3
CP 252 Macromedia Flash Programming ..... 3
CP 260L OpenGL Programming ..... 3
CP 274L Introduction to UNIX and WANs ..... 3
CP 275 Advanced UNIX and WAN Administration ..... 3
CP 278A C++ Programming I ..... 3
CP 296 Topics ..... 1-6
CP 297 Special Problems ..... 1-6
CP 298 Internship ..... 3
CP 299 Cooperative Education ..... 3
Total Credits for Degree ..... 70-71
COMPUTER ANIMATION CONCENTRATION
Certificate and Degree Requirements
CP 170 Techniques for Animation Text ..... 3
CP 177L Introduction to Computer Animation/Graphics ..... 3
CP 178L Computer Animation I ..... 3
CP 179 Computer Animation II ..... 3
CP 180 Computer Animation Strategies and Techniques .....  3
CP 181L Alias/Wavefront Maya Certified Training ..... 3
CP 262 Video Editing/Post Production ..... 3
CP 293 Demo Reel Production (Demo Portfolio) ..... 1
ART 106 Drawing I ..... 3
ART 121 Two-Dimensional Design ..... 3
ART 122 Three-Dimensional Design ..... 3
ENG 101 College Writing ..... 3
ENG 119 Technical Communications ..... 3
or Communications (COMM) Elective ..... 3
CIS 260 Beginning Adobe Photoshop ..... 1
CIS 261 Intermediate Adobe Photoshop ..... 1
CIS 262 Advanced Adobe Photoshop ..... 1
Total Credits for Certificate ..... 40
Additional Associate of Applied Science Degree Requirements
CP 103 Mathematics for Computer Programmers ..... 3
CP 105 Fundamentals of Computer Programming ..... 6
CP 278A C++ Programming I ..... 3
ACCT 103 Survey of Accounting for non-Business Majors ..... 3
MATH 121 College Algebra ..... 3
or MATH 150 Advanced Algebra ..... 4
or MATH 180 Elements of Calculus I ..... 3
MATH 145 Introduction to Probability and Statistics ..... 3
or MATH 245 Fundamentals of Probability and Statistics ..... 3
Additional Nine Credits Selected from Courses Below
CP 113 Survey of Computer Animation ..... 3
CP 183 Network Operating System (Network+ Certification Prep) ..... 3
CP 251 Computer Game Development ..... 3
CP 260L Open GL Programming ..... 3
CP 261L Image Processing ..... 3
CP 274L Introduction to UNIX and WANs ..... 3
CP 284 Visual Basic I ..... 3
CP 296 Topics ..... 1-6
CP 297 Special Problems ..... 1-6
CP 298 Internship ..... 3
CP 299 Cooperative Education ..... 3
BGC 202 Digital Drawing ..... 3
BGC 203 Production Photoshop ..... 3
BGC 204 Digital Printing Production ..... 3
ELEC 217 Upgrading and Repairing PCs (A+ Certification Prep) ..... 3
THEA 122 Introduction to Theater ..... 3
Total Credits for Degree ..... 70-71
CONSTRUCTION MANAGEMENT TECHNOLOGY
Technologies Department

Construction Management provides coursework leading to an associate of applied science degree. A ResidentialSuperintendent Concentration and Construction Estimator Verification of Completion are also offered; studentsmay be eligible for financial aid or veterans' benefits. Students are prepared for mid-management (supervisory)positions in the construction industries, including general contractor, estimator, assistant project manager, inspector,office manager, crew leader, expeditor, superintendent, sales representative and computer specialist. Construction isdefined as all of the disciplines that contribute to the building process, from inception to demolition.

State-of-the-art computer applications that interface between applications and report analysis are used throughout the program. Some courses also use computer-based learning modules.

The program is accredited by the American Council for Construction Education (ACCE). Many of the course credits are transferable to the University of New Mexico towards a baccalaureate degree in construction management.

Because the level of experience for entering students varies, it is imperative that new students interview with the program chair to develop an appropriate schedule.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program chair at 224-3340.

## COURSES REQUIRED FOR RESIDENTIAL SUPERINTENDENT VERIFICATION OF COMPLETION

Course No. Course Name Credit Hours
Term 1
CM 130* Construction Detailing ..... 3
CM 132L Construction Graphics ..... 3
CM 171* Construction Materials and Techniques .....  3
CM 175* General Contractor Preparation .....  3
CP 176 Introduction to Technology Computer Applications ..... 4
Term 2
CM 256 Statics ..... 3
CM 257 Construction Estimating ..... 3
CM 277* Construction Project Management ..... 3
CM 279 Mechanical Electrical Systems in Construction ..... 3
COMM 221 Interpersonal Communication .....  3
Total for Verification of Completion ..... 31
COURSES REQUIRED FOR CONSTRUCTION ESTIMATOR VERIFICATION OF COMPLETION
Term 1
CM 130* Construction Detailing ..... 3
CM 132L Construction Graphics ..... 3
CM 171* Construction Materials and Techniques ..... 3
MATH 120 Intermediate Algebra ..... 3
CP 176 Introduction to Technology Computer Application ..... 4
Term 2
CM175* General Contractor Preparation .....  3
CM 257 Construction Estimating ..... 3
CM 260 Computer Estimating Techniques ..... 3
CM 277* Construction Project Management ..... 3
CM 279 Mechanical and Electrical Systems in Construction ..... 3
Total for Verification of Completion ..... 31
COURSES REQUIRED FOR ASSOCIATE DEGREE
Term 1
CM 130* Construction Detailing ..... 3
CM 171* Construction Materials and Techniques ..... 3
CM 175* Contractor Preparation ..... 3
ENG 101 College Writing ..... 3
CP 176 Introduction to Technology Computer Applications ..... 4
Term 2
CM 132L Construction Graphics .....  3
MATH 120 Intermediate Algebra ..... 4
CM 257 Construction Estimating ..... 3
CM 277* Construction Project Management ..... 3
COMM 221 Interpersonal Communication Studies ..... 3
Term 3
CM 202 Comercial Construction Theory ..... 3
CM 260 Computer Estimating Techniques .....  3
CM 279 Mechanical and Electrical Systems in Construction ..... 3
ACCT 101A Financial Accounting 1A ..... 3
Elective Humanities/Social and Behavioral Science ..... 3
Term 4
CM 256 Statics .....  3
CM261 Construction Surveying ..... 3
CM 263 Construction Equipment and Methods ..... 3
EPT 214 A,B,C Occupational Safety ..... 3
BA 211 Business Law ..... 3
PHYS 102 Or Higher Level ..... 3
Total for Associate Degree ..... 65
Optional Courses
CM 296 Topics ..... 1-4
CM 297 Special Problems ..... 2-4
CM 298 Internship .....  3
CM 299 Cooperative Education ..... 3*These courses are also offered in distance learning format

## CONSTRUCTION TECHNOLOGY

## Trades \& Service Occupations Department

The Construction Technology associate of applied science degree has concentrations in general construction and electrical. Required courses are designed to develop professionalism, leadership and technical skills necessary for students to gain employment in the construction industry or a related field.

The program provides instruction in safety, graphics, materials, computer estimating, statistics, management, equipment, blueprint reading, drafting, communications, math and technical skills related to the residential and commercial construction industry.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3716.

## GENERAL CONSTRUCTION CONCENTRATION

A suggested schedule per term includes:

[^4]Term 3: CM 132L, 171, 175, 202, COMM 130 or higher
Term 4: CM 257, 263, 279, humanities/social and behavioral science elective, PHYS 102 or higher
Required Trades \& Service Occupations Courses
Course No. Course Name
CARP 101 Carpentry Blueprint Reading I ..... 4
CARP 102 Foundations Theory ..... 1
CARP 102L Foundations Lab ..... 2
or CARP 170 Carpentry Fundamentals .....  3
CARP 103 Framing Theory ..... 1
CARP 103L Framing Lab ..... 2
CARP 104 Exteriors Theory ..... 1
CARP 104L Exteriors Lab ..... 2
CARP 111 Carpentry Blueprint Reading II ..... 4
CARP 112 Interior Finish Theory ..... 1
CARP 112L Interior Finish Lab ..... 2
CARP 113 Cabinet-making and Millwork Theory ..... 1
CARP 113L Cabinet-making and Millwork Lab .....  2
CARP 114 Carpentry Remodel Theory ..... 1
CARP 114L Carpentry Remodel Lab ..... 2
CM 132L Construction Graphics ..... 3
CM 171 Construction Materials and Techniques .....  3
CM 175 General Contractor Preparation .....  3
CM 202 Commercial Construction Theory ..... 3
CM 257 Construction Estimating ..... 3
CM 263 Construction Equipments and Methods ..... 3
CM 279 Mechanical Electrical Systems in Construction ..... 3
Computer Requirement
BA 150 Introduction to Computer Processing or CP 176 Introduction to Technology Computer Applications
or CSCI 101 Computer Literacy ..... 4
Required Arts \& Sciences Courses
COMM 130 or higher .....  3
ENG 101 College Writing .....  3
Humanities/Social and Behavioral Science Elective ..... 3
MATH 119 or higher ..... 3-4
PHYS 102 or higher .....  3
Total ..... 66-67
ELECTRICAL CONCENTRATION
A suggested schedule per term includes:
Term 1: ELTR 101, 102, 103L, 104L, MATH 119 or higher
Term 2: ELTR 112, 113, 114L, 115L, ENG 101, BA 150 or CP 176 or CSCI 101
Term 3: ELTR 201, 203, 204L, 205L, COMM 130 or higher
Term 4: ELTR 211, 212, 213L, 214L, humanities/social and behavioral science elective, PHYS 102 or higher
Required Trades \& Service Occupations Courses
ELTR 101 Electrical Theory I ..... 4
ELTR 102 Electrical Math I .....  3
ELTR 103L Electrical DC/AC Lab .....  3
ELTR 104L AC Circuitry, Motors, Generators ..... 3
ELTR 112 Residential Blueprint Reading I ..... 3
ELTR 113 Electrical Theory II ..... 4
ELTR 114L Residential Wiring Lab ..... 3
ELTR 115L Residential Electrical Services ..... 3
ELTR 201 Electrical Theory III ..... 4
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 ..... 4
ELTR 213L PLC Installation and Operation ..... 3
ELTR 214L PLC Systems Operation and Troubleshooting ..... 3
Computer Requirement
BA 150 Introduction to Computer Processing or CP 176 Introduction to Technology Computer Applications or CSCI 101 Computer Literacy ..... 4
Required Arts \& Sciences Courses
COMM 130 or higher .....  3
ENG 101 College Writing ..... 3
Humanities/Social and Behavioral Science Elective ..... 3
MATH 119 or higher ..... 3-4
PHYS 102 or higher ..... 3
Total ..... 71-72

## CONTINUOUS QUALITY IMPROVEMENT (CQI)

## Business Occupations Department

Continuous Quality Improvement (CQI) courses are designed to help improve processes to implement quality culture within organizations. The courses highlight quality improvement concepts and theories, fundamentals of continuous quality improvement, techniques for data gathering, quality tools, team building, action plans for process improvement and quality leadership.

The quality courses are also offered as a concentration in Business Administration.

## Course No. Course Name

Credit Hours
BA 101 Introduction to Quality Management (5 weeks) ............................................................................. 1
BA 102 Fundamentals of Continuous Quality Improvement (CQI) (5 weeks) ........................................... 1
BA 103 Quality Tools (5 weeks) ............................................................................................................... 1
BA 104 Team Building for Quality (5 weeks) ............................................................................................ 1
BA 105 Re-engineering for Quality (5 weeks) ............................................................................................. 1
BA 106 Quality Leadership (5 weeks) .......................................................................................................... 1
Total .................................................................................................................................................. 6

## COSMETOLOGY

## Trades \& Service Occupations Department

Cosmetology is a personal service occupation. The Cosmetology associate of applied science degree program is designed to meet the standards established by the New Mexico State Board of Barbers and Cosmetologists. The degree requires 68 credit hours in cosmetology and general education, which exceeds the minimum 1,600 clock hours required by the State Board. A graduate of the program after satisfactory performance on the state board examination is qualified to practice as a licensed cosmetologist in New Mexico.

The cosmetology curriculum covers theory and lab in the following State Board requirements: sterilization, bacteriology, shampoo, rinses, scalp treatments, chemical rearranging-perms and relaxers, hairstyling, hair coloring and bleaching, hair cutting, facials, manicuring, pedicuring, salon business and retail sales.

Students must declare Cosmetology as their major and meet or complete the following prerequisites:

1. High school diploma or equivalent
2. MATH 119 or equivalent
3. BIO 136 or equivalent
4. ENG 101 or equivalent
5. Computer Requirement: BA 150 or CP 176 or CSCI 101
6. TVI GPA of 2.0 or higher

Students are responsible for meeting the program prerequisites. Listed Arts \& Sciences and the computer requirement must be completed prior to entering the program. Only students meeting these requirements are eligible to be enrolled in Cosmetology courses on a first-come first-served basis.

A cosmetologist career may offer opportunities in the areas of operator, consultant, sales representative or owner. Students pay a non-refundable supply fee of $\$ 50$ prior to entering COS 102L, 112L, 201L and 212L.
New students also pay a $\$ 15$ New Mexico State Board of Cosmetology registration fee (personal money order by 5th day of each term).

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3762.

A suggested schedule per term includes:
Term 1: COS 101, 102, 102L, 103, 103L, 104, 104L, 105, 105L, 106, 106L, 107, 107L
Term 2: COS 112, 112L, 113L, 114L, 115L, 116L, 117L, COMM 221
Term 3: COS 201L, 202L, 203L, 204L, 205L, humanities/social or behavioral science elective
Term 4: COS 211, 212, 212L 213, 213L, 214L. 215L, 216L

| Course No. Course Name | Credit Hours |
| :--- | :--- | :--- |
| COS 101 | Orientation |

COS 101 Orientation ...................................................................................................................................... 2
COS 102 Sterilization/Sanitation/Bacteriology Theory ................................................................................. 1
COS 102L Sterilization/Sanitation/Bacteriology Lab ...................................................................................... 1
COS 103 Shampoo/Rinses/Scalp Treatment Theory ..................................................................................... 1
COS 103L Shampoo/Rinses/Scalp Treatment Lab ........................................................................................... 1
COS 104 Chemical Rearranging Theory ....................................................................................................... 1
COS 104L Chemical Rearranging Lab .............................................................................................................. 1
COS 105 Cutting/Hairstyling Theory .............................................................................................................. 1
COS 105L Cutting/Hairstyling Lab .................................................................................................................. 1
COS 106 Hair Coloring Theory ..................................................................................................................... 1
COS 106L Hair Coloring Lab .......................................................................................................................... 1
COS 107 Manicuring/Pedicuring Theory ...................................................................................................... 1
COS 107L Manicuring/Pedicuring Lab ........................................................................................................... 1
COS 112 Facials Theory ................................................................................................................................ 1
COS 112L Facials Lab ........................................................................................................................................ 1
COS 113L Sterilization/Sanitation/Bacteriology Lab II ................................................................................... 1
COS 114L Shampoo/Rinses/Scalp Treatment Lab II ....................................................................................... 1
COS 115L Chemical Rearranging-Perms and Relaxers Lab II ......................................................................... 2
COS 116L Cutting/Coloring/Hairstyling Lab II ................................................................................................ 3
COS 117L Manicuring/Pedicuring Lab II ........................................................................................................ 2
COS 201L Chemical Rearranging-Perms and Relaxers Lab III ....................................................................... 2
COS 202L Hair Cutting Lab III ....................................................................................................................... 2
COS 203L Hair Coloring Lab III ...................................................................................................................... 1
COS 204L Hairstyling Lab III ......................................................................................................................... 1
COS 205L Facials/Manicuring/Pedicuring Lab III .......................................................................................... 4
COS 211 State Laws/Regulations .................................................................................................................. 1
COS 212 Salon Operation Theory .................................................................................................................. 1
COS 212L Salon Operation Lab (Externship) ................................................................................................... 3
COS 213 Advanced Salon Theory ................................................................................................................. 2
COS 213L Advanced Salon Lab ......................................................................................................................... 5
COS 214L Hair Cutting Lab IV ......................................................................................................................... 2
COS 215L Hair Styling Lab IV ....................................................................................................................... 1
COS 216L Facials/Manicuring/Pedicuring Lab IV ........................................................................................... 1
Computer Requirement
BA 150 Introduction to Computer Processing
or CP 176 Introduction to Technology Computer Applications
or CSCI 101 Computer Literacy 4
Required Arts \& Sciences Courses
ENG 101 College Writing 3
BIO136 Human Anatomy and Physiology ..... 3
COMM 221 Interpersonal Communication Studies ..... 3
MATH 119 Methods of Problem Solving ..... 4
Humanities/Social Science Elective ..... 3
Total ..... 71
Optional Courses
COS 296 Special Topics ..... 1-6
COS 297 Special Problems

$\qquad$
Variable

## COURT REPORTING

## Business Occupations Department

Court reporters bring computer-reporting technology to the courtroom and capture the proceedings taking place in a court trial. The reporter then produces transcripts for all individuals concerned in the legal trial. Court reporters are skilled professionals who earn attractive salaries and can additionally earn from the sale of transcripts. This career path offers other employment possibilities other than court reporting in the courtroom. Instruction focuses on the computer-aided transcription.

Freelance reporters enjoy independence, flexibility, are self-employed, and work directly with attorneys reporting for depositions. Many reporters choose to work for court reporting firms to gain experience and become established in the profession. Some firms allow flexible scheduling for freelance reporters.

Closed caption reporters are trained to write real time where the data is analyzed and transcribed instantly into English. Closed captioning reporters work for television, news and the entertainment industry. Assignments for these reporters may range from sporting events, sitcoms, and nightly news. Closed captioning allows hearingimpaired people access to all television programming.

Other reporter career paths are Political Reporters, Congressional Reporters, and Government Reporters who provide reporting services for each of these industries. Agencies and government employees using reporting professionals in these fields include representatives, senators, political dignitaries, and congressmen. CyberConferencing Specialists are machine shorthand writers who capture sales meetings, press conferences and training seminars from participants in cyber conferencing forums.

Medical Transcriptionists and Stenoscriptionists are additional career paths where reporters prepare medical records and reports using stenograph machines. The qualified stenoscriptionists are medical language specialists with prerecorded material, rather than live accounts from medical professionals. Specialized health care professional reporters are highly sought by the medical industry because of their expertise in anatomy and medical terminology. Other potential career areas for transcriptionists are publishing reporting, corporate reporting, public reporting, educational reporting, and media room reporting.

A keyboarding skill of 35 words per minute is required for entry into the Court Reporting program or a prerequisite of AA 101 and AA 102. Students enrolled in machine shorthand courses are responsible for having a stenotype machine (manual or electric) prior to enrolling in CR 103L or CR 103A, Machine Shorthand I.

CR 104L and CR 104A are open exit courses: CR 210L, CR 210A, CR 220L and CR 230L are open-entry, open exit courses. Students may advance to the next course upon reaching the required speed level. The above-mentioned courses may be taken on a credit/no credit basis. Students in these courses must check with the Financial Aid Office before selecting a grading option.

Information about this program is available from the associate dean at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.

A suggested schedule per term for: (1) occupational component for preparation for the New Mexico Court Reporting examination, (2) associate of applied science degree program in Court Reporting and (3) Stenotranscription includes:

[^5]Term 2: BA 131, CR 104L, 105, 132
Term 3: CR 210L, 240
Term 4: CR 220L, 250L
Term 5: CR 230L, 260, 298
Additional Degree Requirements: ENG 101, MATH 119, approved electives, COMM elective, social science or behavioral science elective, arts and sciences elective

## 3) Stenotranscription

See page 149 for program requirements.

## DEGREE REQUIREMENTS

Course No. Course Name
Credit Hours
BA 121 Business English ............................................................................................................................. 3
BA 131 Business Interpersonal Skills (7.5 weeks) ....................................................................................... 2
COMM Elective ............................................................................................................................... 3
BA 150 Introduction to Computers (or CP176, or CSCI 101)..................................................................... 4
CR 103L Machine Shorthand I ....................................................................................................................... 7
CR 104L Machine Shorthand II ..................................................................................................................... 7
CR 105 Keyboard Skill-building ................................................................................................................. 2
CR 123 Punctuation for Court Reporters .................................................................................................. 3
CR 132 Medical Terminology/Anatomy ................................................................................................... 3
CR 210L Machine Shorthand III ...................................................................................................................... 8
CR 220L Machine Shorthand IV ..................................................................................................................... 8
CR 230L Machine Shorthand V .................................................................................................................... 8
CR 240 Legal Terminology ......................................................................................................................... 3
CR 250L Computer-Aided Transcription....................................................................................................... 3
CR 260 Court Reporting Procedures ........................................................................................................... 3
CR 298 Internship ....................................................................................................................................... 2
ENG 101 College Writing ............................................................................................................................... 3
MATH $119 \quad$ Methods of Problem Solving or higher (except MATH 215 and 296)
or Biological and Physical Science Elective ......................................................................................................... 3-4
Social Science or Behavioral Science Elective ............................................................................... 3
Arts and Sciences Elective ................................................................................................................ 3
Approved Electives ...................................................................................................................... 1-4
Total Required for Degree .................................................................................................... 82-86

## Approved Electives

AA 101 Beginning Keyboarding.................................................................................................................. 3
AA 102 Keyboard Applications .................................................................................................................... 3
AA 107 Intermediate Keyboard Skill-building .............................................................................................. 2
AA 143 Word Processing ............................................................................................................................. 3
AA 231 Business English Applications ...................................................................................................... 3
AA 250 Machine Transcription .................................................................................................................... 3
AA 270 Medical Transcription.................................................................................................................... 3
BA 211 Business Law ................................................................................................................................... 3
BA 252 Customer Relations .......................................................................................................................... 3
CIS 110 DOS Fundamentals (5 weeks) [previously MMS 151] .................................................................. 1
CIS 130 Microsoft Windows (5 weeks) [previously MMS 150] ................................................................. 1
CIS 160 Introduction to Internet (5 weeks) [previously MMS 160] ............................................................ 1
CR 122 Word Power (7.5 weeks) ................................................................................................................ 1
CR 251 Stenotranscription .......................................................................................................................... 3
CR 252 Medical/Legal Stenotranscription.................................................................................................... 2
CR 253 Litigation Support (7.5 weeks) ....................................................................................................... 2
CR 270 Speedbuilding/Test Preparation ................................................................................................... 3
CR 296 Topics Course ............................................................................................................................ 1-3
CR 297 Special Problems ................................................................................................................ Variable
CR 299 Cooperative Education ..... 4
ENG 240 Traditional Grammar ..... 3
ENTR103 Entrepreneurship ..... 3

## CRIMINALJUSTICE

## Trades \& Service Occupations Department

This associate degree program provides comprehensive instruction in criminal justice for students who plan careers in criminal justice agencies (such as law enforcement, courts, and corrections) or in the private sector (security, investigations) or who plan to pursue additional education to enhance their career goals. Students who have already received a certificate from an approved New Mexico criminal justice academy may be granted credit if their academy experience coincides with a model academy curriculum and they have successfully passed a final examination with a grade of 85 percent or better. Approved academies include the Albuquerque Police Academy, the Bernalillo County Sheriff's Academy, and the New Mexico State Police Recruit School. Course requirements may vary depending on where credits were granted. Contact the Trades and Service Occupations Department for any special course requirements.

Some employers may require a high school diploma, two years of college, an associate or bachelor's degree or in some instances a law degree.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3762.

A suggested schedule per term includes:
Term 1: CJ 101, CJ 107, ENG 101, BA 150 or CP 176 or CSCI 101, SOC 101
Term 2: CJ 102, CJ 118, COMM 221, MATH 119, FITT 170, PSY 105
Term 3: CJ 111 or CJ 116, CJ 103 or CJ 104, CJ 117, approved electives ( 6 credit hours)
Term 4: CJ 108, CJ 109 or CJ 113, CJ 112, SOC 215, approved electives ( 6 credit hours)
Course No. Course Name Credit Hours
CJ 101 Criminal Law ..................................................................................................................................... 3
CJ 102 Juvenile Law and Procedure ............................................................................................................ 3
CJ 103 Probation and Parole ....................................................................................................................... 3
or *CJ $104 \quad$ Patrol Procedures
CJ 107 Criminal Procedure .......................................................................................................................... 3
CJ 108 Community-Oriented Policing ...................................................................................................... 3
*CJ 111
or CJ 116 $\quad \begin{array}{ll}\text { Traffic Investigation and Enforcement } \\ \text { Correctional Services .......................................................................................................... } 3\end{array}$
CJ 112 Criminal Investigation ................................................................................................................... 3
$\begin{array}{ll}\text { CJ } 113 & \text { Organized and White Collar Crime } \\ \text { or CJ } 109 & \text { Introduction to Security Services ................................................................................................... } 3\end{array}$
CJ 117 Public Policies and Strategies ......................................................................................................... 3
CJ 118 Report Writing ................................................................................................................................. 3
FITT 170 Physical Fitness I ...................................................................................................................... 1
*CJ 299 may be substituted for CJ 104 or CJ 111.
Computer Requirement
BA 150 Introduction to Computer Processing
or CP 176 Introduction to Technology Computer Applications
or CSCI 101 Computer Literacy .4

Required Arts \& Sciences Courses
COMM 221 Interpersonal Communication Studies............................................................................................ 3
ENG 101 College Writing ................................................................................................................................ 3
MATH 119 (or higher, except MATH 215 or 296). ........................................................................................... 4
PSY 105 Introduction to Psychology ............................................................................................................... 3
SOC 101 Introduction to Sociology .............................................................................................................. 3
SOC 215 Criminology ............................................................................................................................ 3
Approved Electives ....................................................................................................................... 12
Total .............................................................................................................................................. 66
Approved Electives
BIO 110 (or higher) Biology for Non-Majors ..... 3
BIO 112L (or higher) Biology for Non-Majors Lab ..... 1
CHEM 111 Introduction to Chemistry ..... 3
CHEM 112L Introduction to Chemistry Lab ..... 3
CJ 296 Special Topics ..... 1-6
CJ 297 Special Problems ..... Variable
COMM 130 Public Speaking ..... 3
ENG 102 Analytic and Argumentative Writing ..... 3
ENG 119 Technical Communications ..... 3
ENG 150 Study of Literature ..... 3
EPT 111L Environmental Technology I ..... 3
EPT 113A Hazards and Protection Training I ..... 1
EPT 113B Hazards and Protection Training II ..... 2
Foreign Language 101 (or higher) ..... 3-4
HIST $161 \quad$ History of the United States I ..... 3
HIST $162 \quad$ History of the United States II ..... 3
PHIL 110 Introduction to Philosophical Thought ..... 3
PHIL 156 Logic and Critical Thinking ..... 3
PHIL 241 Introduction to Ethics. ..... 3
PHYS 151 Physics I ..... 3
PHYS 151L Physics I Lab ..... 1
PSCI 110 The Political World ..... 3
PSCI 200 U.S. Politics .....  3
PSCI 210 State and Local Politics ..... 3
SOC 111 Criminal Justice System ..... 3
SOC 211 Social Problems ..... 3
SOC 212 Juvenile Delinquency ..... 3
SOC 214 Sociology of Correction ..... 3
SOC 216 Ethnic and Minority Groups ..... 3

## CRITICAL CARE NURSE INTERNSHIP

## Health OccupationsDepartment

$T$hese specialized courses prepare RN's for entry-level positions in critical care nursing units. The courses are designed with a theory as well as clinical component over a term. Students apply theory in campus laboratories and at clinical sites with a selected preceptor.

The curriculum offers an introduction to the role of critical care nurse. It uses a systems and holistic approach to discuss management of patients with single or multi-system failure. It incorporates nursing theory and collaborative practice. The course emphasizes nursing practice, nursing process, and nursing diagnosis as related to the critically ill adult. Content includes common pathologies and nursing assessment of major critical conditions in the multicultural patient, dysrhythmias, hemodynamic monitoring, ventilator management, nutritional support, multiple trauma and multiple system failure, ethical/legal issues, and coping skills for the caregiver.

Written permission of the director of the nursing programs is required for enrollment. Those interested in the course must submit a transcript from their nursing program, a resume, proof of nursing licensure in New Mexico and two letters of recommendation from supervisors and/or nursing instructors. During the first week of the course, students must submit proof of current BLS, current immunizations and TB screening within the past year.
There is a $\$ 22$ uniform fee that covers the cost of hospital parking permits, name tags, standardized testing, and procedures in case of needle stick exposure or exposure to bodily fluids. Students enrolled in this course may not be eligible to receive financial aid or Veterans Administration benefits. Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the Nursing Programs office at 224-4141.

| Course No. | Course Name | Credit Hours |
| :---: | :---: | :---: |
| NURS 280 | Critical Care Internship Theory . | .......... 8 |
| NURS 281C | Critical Care Internship Clinical | 3 |
|  | Total ........... | ........... 11 |

## CULINARY ARTS

Trades \& Service Occupations Department

Food service is an excellent field for students seeking a challenging career in a rapidly growing industry. The
Culinary Arts associate degree program provides comprehensive training in safety, sanitation, quantity food preparation, food service nutrition, equipment use, human relations, supervisory skills and business practices. This program is nationally accredited by the American Culinary Federation Accrediting Commission.
Students are required to purchase as least two sets of chef's uniforms, including all leather, black or white, uniform/ work shoes (no tennis shoes), textbooks, and tools. Students may purchase these items before the beginning of classes at a place of their choice (TVI Bookstore has textbooks). A list of required tools, uniforms, and textbooks is available from TVI advisors (Student Services Building) or from the Trades \& Service Occupations Department. Uniforms cost approximately $\$ 100$, uniform shoes cost approximately $\$ 80$ to $\$ 100$, and tools cost approximately $\$ 200$.
Students must be free of chronic allergies. Each student must present a physician's certificate to TVI before the start of classes stating that the student is free from tuberculosis in a transmissible form.
Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3762.
A suggested schedule per term includes:
Term 1: QUFD 101, 103L, 105L, 107L, 108L, BKNG 102, HT 132, FSMG 101A, 101B, ENG 101
Term 2: QUFD 111, 112L, 113L, 114L, 115L, HT 164, BA 150 or CP 176 or CSCI 101
Term 3: BKNG 101, 103L, 105L, 106L, ENG 101, NUTR 120, humanities/social and behavioral science elective
Term 4: BKNG 112L, 113L, 114L, 115L, COMM 130 or higher, MATH 119 or higher
Course No. Course Name Credit Hours
QUFD 101 Quantity Food Theory I ................................................................................................................. 2
QUFD 103L Buffet Procedures ........................................................................................................................... 2
QUFD 105L Breakfast/Lunch ................................................................................................................................ 2
QUFD 107L Cold Food Preparation ................................................................................................................... 2
QUFD 108L Quantity Food Production .............................................................................................................. 2
QUFD 111 Quantity Food Theory II ................................................................................................................. 2
QUFD 112L Dining Room Skills ........................................................................................................................ 2
QUFD 113L Cold Food Preparation II ................................................................................................................ 2
QUFD 114L Stocks and Sauces-Sous Chef ......................................................................................................... 2
QUFD 115L Entree (Meat and Fish Preparation) ................................................................................................. 2
BKNG 101 Baking Theory I .............................................................................................................................. 2
BKNG 102 Food Service Math ............................................................................................................................ 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 ............................................................................................................................ 2
BKNG 112L Yeast Doughs .............................................................................................................................. 2
BKNG 113L Advanced Cake Batters .................................................................................................................. 2
BKNG 114L Pastries and Cookies ....................................................................................................................... 2
BKNG 115L Icings and Fillings .......................................................................................................................... 2
Required Business Occupations Courses
HT 132 Hotel/Motel Human Resource Management ................................................................................. 3
HT 164 Hotel/Motel Food and Beverage Management ............................................................................... 3
FSMG 101A Food Sanitation Principles .............................................................................................................. 2
FSMG 101B Applied Food Safety ...................................................................................................................... 1
Computer Requirement

| BA 150 | Introduction to Computer Processing |
| :--- | :--- |
| or CP 176 | Introduction to Technology Computer Applications |
| or CSCI 101 | Computer Literacy .................................................................................................................... 4 |

Required Arts \& Sciences Courses
COMM 130 or higher ..... 3
ENG 101 College Writing ..... 3
Humanities/Social or Behavioral Science Elective .....  3
MATH 119 or higher. ..... 3-4
NUTR 120 Personal and Practical Nutrition ..... 3
Total ..... 70-71

## DATA ENTRY

## Business Occupations Department

The Business Occupations Department offers a Verification of Completion upon completion of a cluster of courses from 6 to 28 credit hours that offer skills and competencies in a specific career area. These course clusters may be (1) part of a pathway to a business certificate or an associate of applied science degree or (2) a combination of courses that provide skills and competencies from several business certificates or associate of applied science degrees.

A Verification of Completion provides opportunities for students to gain skills and competencies needed for emerging business strategies and is awarded by the Business Occupations Department. Application for a Verification of Completion may be made with the department upon completion of the course cluster.

Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits. Information about these courses is available from the Business Occupations Department at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.
Course No. Course Name
Credit Hours
DE 101 Data Entry Skill-building 2

## DATABASE MANAGEMENT

## Business Occupations Department

The Business Occupations Department offers a Verification of Completion upon completion of a cluster of courses from 6 to 28 credit hours that offer skills and competencies in a specific career area. These course clusters may be (1) part of a pathway to a business certificate or an associate of applied science degree or (2) a combination of courses that provide skills and competencies from several business certificates or associate of applied science degrees.

A Verification of Completion provides opportunities for students to gain skills and competencies needed for emerging business strategies and is awarded by the Business Occupations Department. Application for a Verification of Completion may be made with the department upon completion of the course cluster.

Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits.
Information about these courses is available from the Business Occupations Department at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.

| Course No. | Course Name | Credit Hours |
| :--- | :--- | :--- |
| CIS 155 | Access Fundamentals (5 weeks) [previously MMS 159] ............................................................... 1 |  |

CIS 156 Intermediate Access (5 weeks) [previously MMS 168] ................................................................ 1
CIS 157 Advanced Access (5 weeks) [previously MMS 169] ..................................................................... 1
CIS 230 Business Database Management [previously MMS 252] ............................................................. 3
$\begin{array}{ll}\text { CIS } 232 \\ \text { or CIS } 290 & \text { Database Design: SQL Windows Server } \\ \text { MS SQL Server............................................................................................................................. } 3\end{array}$
CIS 243 Windows Server Management [previously MMS 242].................................................................. 3
CIS 250 Business Intranets/Extranets [previously MMS 250] ..................................................................... 3
CP 220 Advanced Database Concepts ....................................................................................................... 3
CP 221 Introduction to Oracle: SQL and PL/SQL ....................................................................................... 3
CIS elective .................................................................................................................................... 3
Total ............................................................................................................................................. 24

## DENTAL ASSISTANT

## Health Occupations

Dental Assistant is a three-term program which provides individuals the opportunity to attain the knowledge and skills necessary to work in a dental clinic or dental office. Upon completion of the program, the individual will be prepared to provide basic support under the supervision of a licensed dentist or dental hygienist. In addition, the program prepares individuals for state certification in dental radiographs, coronal polishing and fluoride topical application.

All students are required to meet the program pre-requisites prior to enrollment in the program. In addition, prior to the clinical courses, students are required to have a physical exam, PPD and current immunizations (including tetanus, rubella, rubeola, and hepatitis B). The TVI Health Center is able to provide these services for a fee if the student does not have a private physician. Students must arrange for their own transportation to attend all classes, observations, lab and clinical experiences and they may be required to have clinicals and labs on weekends and during the evening hours.

A $\$ 40.00$ uniform fee covers the cost of lab coats, name tags and preventative lab tests in case of an exposure to blood. In addition, students must purchase their own textbooks.

Prerequisites:
■ High School Diploma or GED
■ RDG 100, MATH 99 or equivalent

## General Education Prerequisites

Course No. Course Name Credit Hours
ENG 101 College Writing ..... 3
COMM 221 Interpersonal Communications ..... 3
REQUIRED DENTAL ASSISTANT COURSES
DA 101 Dental Science ..... 3
DA 102L Dental Materials and Application ..... 3
DA 104 Tooth Morphology, Histology \& Recordings ..... 3
DA 106L Chair-side Procedures I ..... 3
DA 108L Dental Radiology I ..... 2
DA 110L Dental Practice Management and Patient Care ..... 2
DA 112 Dental Science II .....  3
DA 114 Dental Specialties .....  3
DA 116L Chair-side Procedures II ..... 3
DA 118L Dental Radiology II ..... 2
DA 120C Clinical Application I ..... 6
DA 124 C Clinical Application II ..... 7
Total ..... 46

## DESIGN DRAFTING ENGINEERING TECHNOLOGY

## Technologies Department

Design Drafting Engineering Technology is an exciting and rewarding field for persons with a strong interest in 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 TVI chapter of the Society of Manufacturing Engineers (SME).

Students must buy their own drafting tools and a full-function scientific calculator. It is strongly recommended that all beginning students meet with the program chair to plan an individual course of study. Entry into a course without the necessary prerequisites may be allowed with the permission of the program chair.

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).

DDET course credits will transfer to New Mexico State University or other schools offering baccalaureate degrees in engineering technology.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program chair at 224-3340.
Course No. Course Name Course No. Course NameDDET 102L Manufacturing Methods3
DDET 106L Basic CADD ..... 3
DDET 114L Mechanical Detail Drafting ..... 3
DDET 115L Intermediate CADD ..... 3
DDET 201L Mathematics of Mechanics ..... 3
DDET 205L Machine Design ..... 4
DDET 206L Jig and Fixture Design ..... 4
DDET 211L Electromechanical Drafting ..... 3
DDET 215L Technical Computer Applications .....  3
DDET 216L Dimensional Metrology ..... 4
DDET 220L Statics and Strengths of Materials ..... 5
CP 284 Visual Basic I ..... 2
ENG 101 College Writing .....  3
ENG 119 Technical Communications ..... 3
Humanities or Social Science Elective .....  3
MATH 121 College Algebra ..... 3
or MATH 150 Advanced Algebra ..... 4
MATH 162 Calculus I ..... 4
or MATH 180 Elements of Calculus .....  3
MATH 123 Trigonometry ..... 2
PHYS 151/151L General Physics I/Lab .....  5
PHYS 152/152L Physics II/Lab .....  5
or CHEM 121/121L General Chemistry I/Lab ..... 4
Total Credits for Degree ..... 67-70
Optional Courses
DDET 116L Basic Electronic Drafting .....  3
DDET 284 Geometric Dimensioning and Tolerancing ..... 3
DDET 296 Topics ..... 1-5
DDET 297 Special Problems ..... 2-5
DDET 298 Internship .....  3
DDET 299 Cooperative Education .....  3
CP 177L Introduction to Computer Animation/Graphics ..... 3
CP 178L Computer Animation I ..... 3
MATT 173 Machine Tools Technology Skills ..... 3
WELD 170 Welding Skills Improvement ..... 3

## DIAGNOSTIC MEDICAL SONOGRAPHY

## Health Occupations Department

Diagnostic Medical Sonography is a four-term associate of science degree program that provides didactic, lab and clinical experiences to attain the knowledge skills and professional behaviors necessary for employment in medical facilities and physicians offices. Upon completion of the program, graduates will be prepared to perform medical imaging procedures using diagnostic medical sonography techniques. The program prepares graduates to sit for the national board exams administered by the American Registry of Diagnostic Medical Sonographers. Successful completion of this exam results in attaining the RDMS credentials (Registered Diagnostic Medical Sonographer). The program will seek accreditation status by CAAHEP (Commission on Accreditation of Allied health Education Programs).

Selection of students to begin DMS core coursework each year will be based upon the number of Arts and Sciences requirements completed and, if necessary, the date of declaration of DMS as major at TVI will be used for
prioritization. In addition, prior to enrollment in DMS core courses students are required to complete a physical exam and provide evidence of current immunizations. Students are required to provide their own transportation to classes, labs and clinical. A $\$ 65$ uniform fee covers cost of lab coats, nametags, preventive lab tests in case of exposure to blood, and hospital parking. Students must purchase their own textbooks.

Prerequisites are:
■ High School Diploma or GED
■ TVI GPA of 2.0 or higher
Order of DMS coursework (prerequisite coursework must be completed prior to enrollment in each DMS course; see course descriptions):

Term 1: DMS 101, DMS 102L, DMS 210
Term 2: DMS 103, DMS 120/120C, DMS 130
Term 3: DMS 211, DMS 220/220C, DMS 230
Term 4: DMS 260C, DMS 270L

## DEGREE REQUIREMENTS

Course No. Course Name Credit Hours
DMS 101 Introduction to DMS ..... 1
DMS 102L Medical Concepts ..... 4
DMS 103 DMS Pathophysiology ..... 3
DMS 120/120C General Sonography I/Clinical ..... 5
DMS 130 Sonographic Physics I ..... 3
DMS 210 Cross Sectional Anatomy ..... 3
DMS 211 Patient Care Concepts/Quality Control ..... 3
DMS 220/220C General Sonography II/Clinical ..... 7
DMS 230 Sonographic Physics II .....  3
DMS 260C General Sonography Internship ..... 12
DMS 270L Clinical Seminar ..... 1
Required Arts \& Sciences Courses
BIO 237/247L Anatomy \& Physiology I ..... 4
BIO 238/248L Anatomy \& Physiology II ..... 4
COMM 221 Interpersonal Communications ..... 3
ENG 101 College Writing ..... 3
MATH 121 College Algebra .....  3
PHYS 151/151L Physics I ..... 5
HUM/SS Elective ..... 3
Total ..... 70

## DIESEL EQUIPMENTTECHNOLOGY

## Trades \& Service Occupations Department

T
his certificate program prepares students to work on a variety of diesel-powered equipment used in the trucking, heavy equipment and extraction industries. Courses also may be applied toward a degree in Transportation Technology.

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.

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.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3718.

A suggested schedule per term includes:
Term 1: DETC 103, 103L, 104, 104L, 105, 105L
Term 2: DETC 111, 111L, 112, 112L, 113, 113L, AUTC 126L
Term 3: DETC 201, 201L, 202, 202L, 203, 203L, EPT 214A, EPT 214B

| Course No. | Course Name | Credit Hours |
| :---: | :---: | :---: |
| DETC 103 | Manual Shift Transmissions Theory . | 1 |
| DETC 103L | Manual Shift Transmissions Lab | 2 |
| DETC 104 | Drive Axles, Brakes and Automatic Transmissions Theory . | 1 |
| DETC 104L | Drive Axles, Brakes and Automatic Transmissions Lab | 3 |
| DETC 105 | Hydraulic Systems Theory | .. 1 |
| DETC 105L | Hydraulic Systems Lab | 2 |
| DETC 111 | Diesel Engine Overhaul Theory | . 1 |
| DETC 111L | Diesel Engine Overhaul Lab. | 3 |
| DETC 112 | Precision Measurement and Component Repair Theory | 1 |
| DETC 112L | Precision Measurement and Component Repair Lab | 2 |
| DETC 113 | Diesel Engine Testing and Tune-up Theory | .. 1 |
| DETC 113L | Diesel Engine Testing and Tune-up Lab | 2 |
| AUTC 126L | Automotive Electrical | 4 |
| DETC 201 | Diesel Electrical Theory | 2 |
| DETC 201L | Diesel Electrical Lab . | 3 |
| DETC 202 | Diesel Fuel Injection Theory | 1 |
| DETC 202L | Diesel Fuel Injection Lab. | 2 |
| DETC 203 | Transport Refrigeration/Air Conditioning Theory | 1 |
| DETC 203L | Transport Refrigeration/Air Conditioning Lab | 2 |
|  | Total ........................................................... | .......... 35 |
| Optional Courses |  |  |
| DETC 296 | Special Topics. | . 1-6 |
| DETC 297 | Special Problems ..... | .. Variable |

## DIGITAL PUBLISHING

## Business Occupations Department

The Business Occupations Department offers a Verification of Completion upon completion of a cluster of courses from 6 to 28 credit hours that offer skills and competencies in a specific career area. These course clusters may be (1) part of a pathway to a business certificate or an associate of applied science degree or (2) a combination of courses that provide skills and competencies from several business certificates or associate of applied science degrees.

A Verification of Completion provides opportunities for students to gain skills and competencies needed for emerging business strategies and is awarded by the Business Occupations Department. Application for a Verification of Completion may be made with the department upon completion of the course cluster.

Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits. Information about these courses is available from the Business Occupations Department at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.

| Course No. | Course Name | Credit Hours |
| :---: | :---: | :---: |
| BGC 200 | Digital Publishing |  |
| or CIS 255 | Desktop Publishing [previously MMS 255] | 3 |
| BGC 201 | Advanced Digital Publishing | 3 |
| BGC 202 | Digital Drawing | 3 |
| BGC 203 | Production PhotoShop | 3 |
| BGC 204 | Digital Printing Production. | 3 |
|  | Total .............. | ........ 15 |

## E-COMMERCE

## Business Occupations Department

The Web has created a new, electronic, global economy where businesses are being transformed. E-Commerce is a pathway to managing and conducting online business in a global economy. The E-Commerce program provides opportunities to combine business knowledge and skills with Internet skills to develop, conduct and manage a web-based business or add a web presence to an existing business.

Students will focus on understanding, creating, managing and maintaining online business processes that include Web-site design, management, marketing, sales, customer service, payment systems, database design and management, business law, cash and credit security, purchasing and knowledge management.

In addition to the certificate and associate of applied science degree, the following Verifications of Completion have been added for students seeking knowledge/skills in a specific area (please refer to next section). They include E-Commerce Fundamentals, E-Commerce Business Startup, E-Commerce for the Hospitality Industry, E-Commerce Operations, E-Commerce for Real Estate, E-Commerce for Retail Business and International E-Commerce.

Information about this program is available from the associate dean at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.

A suggested schedule per term of the E-Commerce program is listed below:

## Certificate

Term 1: BA 113, 121, 150, CIS 140, ECM 102, 176
Term 2: BA 131, CIS 164, 165, 150, 151, 278, ECM 105, ENG 101
Term 3: ACCT 101A, CIS 155, 156, 157, ECM approved electives
Term 4: COMM elective, ECM approved electives
Additional Degree Requirements
Term 4 \& 5: BA 122 or ENG 119, ECM approved elective, MATH 119, PHIL 245B, social science or behavioral science elective
CERTIFICATE AND DEGREE REQUIREMENTS
Course No. Course Name Credit Hours
ACCT 101A Accounting IA ..... 3
BA 113 Introduction to Business ..... 3
BA 121 Business English ..... 3
BA 131 Business Interpersonal Skills (7.5 weeks) ..... 2
BA 150 Introduction to Computers (or CP 176, or CSCI 101) ..... 4
CIS 140 PowerPoint Fundamentals (5 weeks) [previously MMS 157] ..... 1
CIS 150 Excel Fundamentals (5 weeks) [previously MMS 158] ..... 1
CIS 151 Intermediate Excel (5 weeks) [previously MMS 166] ..... 1
CIS 155 Access Fundamentals (5 weeks) [previously MMS 159] ..... 1
CIS 156 Intermediate Access (5 weeks) [previously MMS 168] ..... 1
CIS 157 Advanced Access (5 weeks) [previously MMS 169] ..... 1
CIS 164 Hypertext Markup Language (HTML) (5 weeks) [previously MMS 171] ..... 1
CIS 165 Web Construction Coding (5 weeks) [previously MMS 172]. ..... 1
CIS 278 Business Web Site Design [previously MMS 276] ..... 3
COMM Elective ..... 3
ECM 102 Internet Customer Service ..... 3
ECM 105 Web Business ..... 3
ECM 176 Introduction to Internet Commerce (5 weeks) [previously MMS 176] ..... 1
ENG 101 College Writing .....  3
Approved E-Commerce Electives ..... 12
Total Required for Certificate ..... 51
Additional Degree Requirements
BA 122 Business Writing
or ENG 119 Technical Communications ..... 3
MATH 119 Methods of Problem Solving or higher (except MATH 215 and 296) ..... 3-4
PHIL 245B Business Ethics .....  3
Approved E-Commerce Electives ..... 3
Social or Behavioral Science Elective ..... 3
Total Required for Degree ..... 66-67
Approved E-Commerce Electives
CIS 119 Introduction to Personal Digital Assistant ..... 1
CIS 180 Extensible Markup Language (XML) (5 weeks) [Previously MMS 177] ..... 1
CIS 181 Business Document Presentation ( 5 weeks) ..... 1
CIS 182 Validating Business Documents (5 weeks) ..... 1
CIS 190 Introduction to FrontPage ( 5 weeks) [previously MMS 178] ..... 1
CIS 191 Intermediate FrontPage ( 5 weeks) [previously MMS 179] ..... 1
CIS 230 Business Database Management [previously MMS 252] ..... 3
ECM 101 Web Accounting ..... 3
ECM 140 Web Catalogs ..... 3
ECM 150 Wireless Web ..... 3
ECM 201 E-Commerce Business Planning ..... 3
ECM 220 Web Marketing ..... 3
ECM 223 Online Payment Systems ..... 3
ECM 224 Knowledge Management ..... 3
ECM 226 Online Business Law ..... 3
ECM 260 Business Web Security ..... 3
ECM 270 Web Site Management ..... 3
ECM 280 Web Customer Identification ..... 3
ECM 296 Topics ..... 1-3
ECM 297 Special Problems ..... Variable
ECM 298 Internship ..... 4
ECM 299 Cooperative Education ..... 4

## E-COMMERCE VERIFICATIONS OF COMPLETION

## Business Occupations Department

$T$he Business Occupations Department offers a Verification of Completion upon completion of a cluster of courses from 6 to 28 credit hours that offer skills and competencies in the e-commerce career area. These course clusters may be (1) part of a pathway to a business certificate or an associate of applied science degree or (2) a combination of courses that provide skills and competencies from several business certificates or associate of applied science degrees.

A Verification of Completion provides opportunities for students to gain skills and competencies needed for emerging business strategies and is awarded by the Business Occupations Department. Application for a Verification of Completion may be made with the department upon completion of the course cluster.

Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits. Information about these courses is available from the Business Occupations Department at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.

## E-COMMERCE BUSINESS STARTUP

Course No. Course Name Credit Hours
ECM 105 Web Business ................................................................................................................................. 3
ECM 176 Introduction to Internet Commerce (5 weeks) [previously MMS 176].......................................... 1
ECM 201 E-Commerce Business Planning ..................................................................................................... 3
ENTR 101 Entrepreneurship ............................................................................................................................ 6
ENTR 102 Entrepreneurship in a Global Setting........................................................................................... 3
Total ............................................................................................................................................... 16
E-COMMERCE FUNDAMENTALS
Course No. Course Name Credit Hours
ECM 102 Internet Customer Service ................................................................................................................ 3
ECM 105 Web Business ................................................................................................................................. 3
ECM 176 Introduction to Internet Commerce ( 5 weeks) ..... 1
CIS 164 Hypertext Markup Language (5 weeks) [previously MMS 171] ..... 1
CIS 165 Web Construction Coding (5 weeks) [previously MMS 172] ..... 1
CIS 278 Business Web Site Design [previously MMS 276] ..... 3
Total ..... 12
E-COMMERCE FOR THE HOSPITALITY INDUSTRY
Course No. Course Name ..... Credit Hours
ECM 102 Internet Customer Service ..... 3
ECM 176 Introduction to Internet Commerce (5 weeks) [previously MMS 176] ..... 1
CIS 164 Hypertext Markup Language (5 weeks) [previously MMS 171]
OR CIS 190 Beginning FrontPage (5 weeks) [previously MMS 178] ..... 1
CIS 165 Web Construction Coding (5 weeks) [previously MMS 172]
or CIS 191 Intermediate FrontPage (5 weeks) [previously MMS 179] ..... 1
HT 104 Tourism and the Hospitality Industry ..... 3
HT 141 Marketing of Hospitality Services ..... 3
Total ..... 12
E-COMMERCE OPERATIONS
Course No. Course Name ..... Credit Hours
ECM 220 Web Marketing ..... 3
ECM 223 Online Payment Systems ..... 3
ECM 260 Business Web Security ..... 3
ECM 270 Web Site Management .....  3
ECM 280 Web Customer Identification ..... 3
Total ..... 15
E-COMMERCE FOR REAL ESTATE
Course No. Course Name ..... Credit Hours
ECM 102 Internet Customer Service ..... 3
ECM 176 Introduction to Internet Commerce (5 weeks) ..... 1
ECM 220 Web Marketing ..... 3
ECM 280 Web Customer Identification ..... 3
CIS 164 Hypertext Markup Language (5 weeks) [previously MMS 171] or CIS 190 Beginning FrontPage (5 weeks) [previously MMS 178] ..... 1
CIS 165 Web Construction Coding (5 weeks) [previously MMS 172]
or CIS 191 Intermediate FrontPage (5 weeks) [previously MMS 179] ..... 1
Total ..... 12
E-COMMERCE FOR RETAIL BUSINESS
Course No. Course Name Credit Hours
ECM 102 Internet Customer Service ..... 3
ECM 105 Web Business ..... 3
ECM 176 Introduction to Internet Commerce (5 weeks) ..... 1
ECM 220 Web Marketing ..... 3
ECM 223 Online Payment Systems ..... 3
Total ..... 13

## ELECTRICALTRADES

## Trades \& Service Occupations Department

$T$he Electrical Trades certificate program provides the student with job-site safety training, OSHA compliance and entry-level skills for employment in electrical construction, maintenance or related fields. This three-term certificate is offered for those wishing to pursue an Electrical Trades Certificate of Competency from the State Regulation and Licensing Department (EE-98J).

Lab instruction is conducted on- and off-campus, enabling students to gain hands-on experience in electrical installation. Electrical safety, circuitry, electrical materials, residential wiring, services, commercial/industrial materials and industrial power distribution are covered in the lab activities. Theory instruction includes safety, National Electrical Code (NEC) compliance, technical information, math, employment skills, computer skills, residential and commercial blueprint reading and material analysis.

Students must have normal color differentiation, be free from chronic respiratory diseases and allergies and be able to lift 50 pounds. Most employers require a valid driver's license and a good driving record.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3716.

A suggested schedule per term includes:
Term 1: ELTR 101, 102, 103L, 104L
Term 2: ELTR 112, 113, 114L, 115L
Term 3: ELTR 201, 203, 204L, 205L
Course No. Course Name Credit Hours
ELTR 101 Electrical Theory 1 ......................................................................................................................... 4
ELTR 102 Electrical Math 1 .............................................................................................................................. 3
ELTR 103L Electrical DC/AC Lab ...................................................................................................................... 3
ELTR 104L AC Circuitry, Motors, Generators ................................................................................................... 3
ELTR 112 Blueprint Reading 1 ......................................................................................................................... 3
ELTR 113 Electrical Theory II ........................................................................................................................... 4
ELTR 114L Wiring Lab ...................................................................................................................................... 3
ELTR 115L Electrical Services ......................................................................................................................... 3
ELTR 201 Electrical Theory ........................................................................................................................... 4
ELTR 203 Electrical Motor Control Theory ................................................................................................... 3
ELTR 204L Industrial Motor Control Lab .......................................................................................................... 3
ELTR 205L Industrial Power Distribution ......................................................................................................... 3
Total ............................................................................................................................................... 39
Optional Courses
ELTR 170 Electrical Wiring Circuitry ............................................................................................................ 2
ELTR 171L Conduit Hand Bending Fundamentals ............................................................................................ 1
ELTR 173 Industrial Motor Control Circuitry .................................................................................................. 2
ELTR 174L Industrial PC Motor Control ......................................................................................................... 3
ELTR 175 Fiber Optical Cable Installation ....................................................................................................... 2
ELTR 176 Electrical Journeyman Preparation .................................................................................................. 3
ELTR 211 Industrial Electrical Circuitry and Safety ...................................................................................... 3
ELTR 212 Programmable Logic Controller Theory ........................................................................................ 4
ELTR 213L PLC Installation and Operation ...................................................................................................... 3
ELTR 214L PLC Systems Operation and Troubleshooting ............................................................................... 3
ELTR 296 Special Topics ............................................................................................................................. 1-6
ELTR 297 Special Problems ............................................................................................................... Variable

## ELECTRONICS ENGINEERING TECHNOLOGY

## Technologies Department

The Electronics Engineering Technology program emphasizes the application of scientific and engineering methods along with related technical skills 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 the skills necessary for employment in a broad occupational area at levels between the electronics technician and the electrical engineer.

TVI 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 program chair to plan an individual course of study.

Pre- or corequisites for Electronics Engineering Technology courses may be waived by the program chair for a student who has related coursework. Credit for an EET course may be given if an official transcript from another institution indicates that an equivalent course has been taken. Approval by the program chair and department dean is required. Credit for an EET course may be given by passing a challenge exam.
The Electronics Engineering Technology associate degree program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET).

EET course credits will transfer to New Mexico State University or other schools offering baccalaureate degrees in engineering technology.

Additional information about this program is available from the program chair at (505) 224-5919 and the Advisement Centers at (505) 224-3177 or (505) 224-3340.

## DEGREE REQUIREMENTS

Course No. Course Name Credit Hours
ENG 101 College Writing ..... 3
ENG 119 Technical Communications ..... 3
MATH 121 College Algebra ..... 3
or MATH 150 Advanced Algebra ..... 4
EET 107L Graphics and Analytical Methods ..... 3
EET 109L Circuit Analysis I ..... 5
EET 113L Structured Computer Programming .....  3
EET 117L Digital Electronics I .....  3
MATH 123 Trigonometry ..... 3
MATH 162 Calculus I ..... 4
or MATH 180 Elements of Calculus 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 ..... 3
EET 219L Electronic Systems. ..... 5
CHEM 111/112L Introduction to Chemistry/Lab or CHEM 121/121L General Chemistry/Lab ..... 4
PHYS 151/151L Physics I/Lab or PHYS 160/160L General Physics I/Lab ..... 5
Humanities or Social Science Elective ..... 3
Total Credits for Degree ..... 66-68
Optional Courses
EET 296 Topics ..... 1-5
EET 297 Special Problems ..... 3-5
EET 298 Internship .....  3
EET 299 Cooperative Education ..... 3

## ELECTRONICS TECHNOLOGY

## Technologies Department

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 electromechanical and computer applications. To receive an associate degree the student must complete the core requirements, a student-selected concentration, and additional Arts and Sciences requirements. The associate degree offers a concentration in General Concentration and/or Process Control.

The Electronics Technology core curriculum provides students with the fundamentals of electronics with emphasis on digital equipment such as computers and electronic control devices. The General Concentration
complements the core curriculum with an understanding of a student-selected area or emphasis. Courses like Consumer Electronics provide students troubleshooting techniques for digital video and audio equipment and upgrading and repairing PC's. The Laser courses provide hands-on laboratory experiences with several types of lasers. After the successful completion of the upgrading and repairing PC's classes, students will have the skills to obtain an A+ certification, which is an industry-recognized credential. The Process Control Concentration complements the core curriculum with an in-depth study of maintenance and troubleshooting of electromechanical systems, sensor and feedback theories, industrial robotics, and computer integrated manufacturing. Laboratory facilities contain modern equipment for testing, troubleshooting, calibrating, analyzing and designing electronic and electromechanical systems. Laboratory exercises require students to apply their general education courses through written reports, computer generated documents, and mathematical calculations. Hands-on experiences are addressed throughout the entire program. Teamwork is required for the design and building of several lab projects.

Students entering Electronics Technology courses must meet the prerequisites of RDG 099 or equivalent, MATH 100B or equivalent on placement test, and CP 176 or equivalent. Entry into a course without the prerequisite may be allowed with the permission of the director of the program.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program chair at 224-3340.

## CERTIFICATE AND DEGREE CORE REQUIREMENTS

Course No. Course Name Credit Hours
ELEC 103A Electronics Fundamentals A ..... 4
and ELEC 103B Electronics Fundamentals B ..... 4
or ELEC 103L Electronics Fundamentals ..... 8
ELEC 104 Electronics Mathematics ..... 4
ELEC 105L Digital Circuits .....  3
ENG 101 College Writing ..... 3
ELEC 276L Soldering Techniques ( 7.5 weeks) ..... 2
Total Credits for Certificate ..... 20
Additional Degree Requirements (choose one concentration)
General Electronics Concentration:
Credits transferable from the certificate ..... 20
CHEM 121/121L or PHYS 151/153L or PHYS 160 ..... 4
ELEC 114A Semiconductor Devices A ..... 3
and ELEC 114B Semiconductor Devices B .....  3
or ELEC 114L Semiconductor Devices ..... 6
ELEC 118L Electromechancial Devices .....  6
ELEC 203L Introduction to Microproprocessors ..... 4
ELEC 205L Analog Circuits ..... 4
ELEC 214L Troubleshooting Techniques ..... 3
ENG 119 Technical Communications ..... 3
Humanities or Social Science elective ..... 3
MATH 120 or MATH 121 or MATH 145 or MATH 150 or MATH 162 or MATH 180 ..... 4
Plus 18 additional credits from among these courses:
ELEC 217 Upgrading and Repairing PCs .....  3
ELEC 220 Digital Signal Processing Systems ..... 6
ELEC 221 Advanced Upgrading and Repairing PCs ..... 3
ELEC 223 RF/Consumer Electronics ..... 6
PHOT 101L Introduction to Photonics and Photonics Safety ..... 4
PHOT 201L Optics ..... 6
PHOT 207L Introduction to Laser Systems ..... 4
PHOT 217L Advanced Laser Systems with Applications ..... 6
PC 212L Vacuum System ..... 2
Technical Elective (see list below) ..... 3
Total for Degree ..... 75

## Process Control Concentration

Credits transferable from the certificate ..... 32
CHEM 111/113L or CHEM 121/121L or PHYS 1512/153 or PHYS 160 ..... 4
ELEC 203L Introduction to Microprocessors ..... 4
ELEC 205L Analog Circuits ..... 4
ELEC 214L Troubleshooting Techniques ..... 3
ENG 119 Technical Communications ..... 3
Humanities or social Science elective ..... 3
MATH 120 or MATH 121 or MATH 145 or MATH 150 or MATH 162 or MATH180 ..... 4
PC 201 Electromechanical Systems ..... 3
PC 203 PLC Theory and Applications (7.5 weeks) ..... 2
PC 204 Feedback Theory and Applications (7.5 weeks) .....  2
PC 205 Sensor Theory and Applications (7.5 weeks) ..... 2
PC 211 Power RF ..... 2
PC 212L Vacuum Systems ..... 2
Plus five additional credits from among these courses:
PC 206 CIM Theory and Applications (7.5 weeks) ..... 2
PC 207 Mobile Robot Design and Construction ( 7.5 weeks) ..... 2
PC 208 Industrial Robot Theory and Applications (7.5 weeks) ..... 2
SMT 201/201L Semiconductor Manufacturing Technology I Theory/Lab ..... 3
Technical Elective ..... 3
Total for Degree ..... 75
Technical Electives
CP 177L Introduction to Computer Animation/Graphics .....  3
CP 182 Networking Topologies/NOS Environments ..... 3
CP 183 Overview of Network Operating System Environments .....  3
CP 278A C++ Language Programming I .....  3
CP 285 Troubleshooting Networks .....  3
ELEC 277L Advanced Soldering Techniques (7.5 weeks) .....  2
ELEC 279 Electronics Refresher ..... 3
ELEC 296 Topics ..... 1-8
ELEC 297 Special Problems ..... 2-8
ELEC 298 Internship ..... 3
ELEC 299 Cooperative Education ..... 3
MATT 102 Metals Blueprint Reading I .....  2
MATT 105L Basic Supporting Machine Tool Principles .....  2
PC 210 Introduction to Micro Electro-Mechanical Systems (MEMS) (7.5 wks) ..... 2

## ELEMENTARY EDUCATION

## Health Occupations Department

The Elementary Education (EE) Program facilitates the learning of theory and skills required for working with children in the public school system in grades kindergarten through eighth ( $\mathrm{K}-8$ ). The two-year program includes classroom instruction and practical experience within the Albuquerque Public School System (APS). The program leads to an associate of arts degree with one of four specialty concentrations.

■ Bilingual
■ Language Arts (Literacy)

- Special Education

Graduates from the program may transfer to the University of New Mexico Teacher Preparation Program.
Admission to the UNM program requires successful completion of two parts of the New Mexico Teacher's Assessment Exam and a personal interview. The associate degree will also enable graduates to serve as substitute teachers within APS.

Note: State law requires a background check on all persons seeking employment with the public school system. Prerequisites are successful completion of English 100, Math 100A and Reading 100 or equivalent.

## ARTS \& SCIENCE COURSES REQUIRED FOR ASSOCIATE DEGREE

Course No. Course Name Credit Hours
ENG 101 College Writing ..... 3
ENG 102 Analytic and Argumentative Writing .....  3
COMM 270 Communication Studies for Teachers ..... 3
MATH 111 Math for Elementary and Middle School Teachers I .....  3
MATH 112 Math for Elementary and Middle School Teachers II ..... 3
MATH 215 Math for Elementary and Middle School Teachers III ..... 3
HIST 101 Western Civilization I or HIST 102 Western Civilization II ..... 3
HIST $161 \quad$ History of the United States I or HIST 162 History of the United States II ..... 3
HIST 260 History of New Mexico ..... 3
HIST Elective ..... 3
ART 101 Introduction to Art
or MUS 139 Music Appreciation I
or MUS 140 Music Appreciation II .....  3
PSY 105 Introduction to Psychology ..... 3
SOC 101 Introduction to Sociology ..... 3
Choose 3 of the following: ..... 12
ASTR 102/111L Introduction to Astronomy II, Astronomy Lab ..... 4
BIO 110/112L Biology for Non-Majors, Lab for Non-Majors .....  4
CHEM 111/112L Introduction to Chemistry, Chemistry Lab .....  4
PHYS 151/151L Physics I, Physics Lab .....  4
Subtotal ..... 51
ChooseOneConcentration
Concentration: Language Arts
CDV 204 Introduction to Classroom Learning .....  3
CDV 129C Practicum I .....  2
CDV 203C Practicum II ..... 2
ENG 150 Stud of Literature ..... 3
ENG 240 Traditional Grammar .....  3
Subtotal ..... 13
Total ..... 64
Concentration: Bilingual
CDV 204 Introduction to Classroom Learning .....  3
CDV 216 Individual and Family Diversity .....  3
CDV 217 Diversity in Early Childhood Programs and Assessment ..... 2
CDV 129C Practicum I ..... 2
CDV 203C Practicum II ..... 2
SPAN 101 Beginning Spanish ( or higher) ..... 3
SPAN 102 Beginning Spanish II (or higher) ..... 3
Subtotal ..... 18
Total ..... 69
Concentration: Special Education
CDV 204 Introduction to Classroom Learning ..... 3
GEOG 102 Human Geography ..... 3
CDV 206 Education of The Exceptional Person ..... 3
CDV 129C Practicum I .....  2
CDV 203C Practicum II .....  2
Subtotal ..... 13
Total ..... 64

## EMERGENCY MEDICAL TECHNICIAN

## Health Occupations Department

This special course trains ambulance attendants to recognize, stabilize and transport patients with life-threatening emergencies. Classes include theory and lab. A TVI and EMS (Emergency Medical System) Academy certificate is awarded to students completing the course, who are then eligible to take the state licensure exam to become licensed emergency medical technicians.

Prior to enrollment each student must have current Basic Life Support (BLS) provider CPR certification and must be a high school graduate. BLS CPR certification is offered through the American Heart Association. A high school diploma or equivalent is required for EMT licensure.

The course is offered during evening hours. Participants pay a TVI registration fee, a $\$ 28$ uniform fee, a $\$ 15$ supply fee and purchase a textbook. The uniform fee covers the cost of the EMS academy certificate.

Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits.
Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-4111.
Course No. Course Name
Credit Hours
EMS 160L Basic Emergency Medical Technician Skills ............................................................................... 6

## ENTREPRENEURSHIP

## Business Occupations Department

The Entrepreneurship courses (prefix ENTR) are for persons who plan to open a small business or who own or manage a business and want further training in principles, operations and/or expansion.
Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits. Information about this program is available from the associate dean at 224-3811 and from the Advisement Centers at 224-3177 or 224-5646.
Course No. Course Name Credit Hours
ENTR 101 Entrepreneurship .6

## ENVIRONMENTAL SAFETY AND HEALTH

## Trades \& Service Occupations Department

The Environmental Safety and Health associate of applied science degree program provides basic classroom instruction in the diverse field of environmental safety and health. 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 protection, soil, domestic and industrial waste control, workplace safety, energy management and recycling.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3762.

A suggested schedule per term includes:
Term 1: EPT 111L, 214A, 214B, 214C, CHEM 111/112L, ENG 101, MATH elective
Term 2: EPT 113A, 113B, ENG 119, PHYS 102, BA 150 or CP 176 or CSCI 101
Term 3: EPT 173, 211L, 215, BIO 121/121L or 123/124L, MATH elective
Term 4: EPT 299, CHEM 212, Humanities/Social Science elective, Communications elective (oral communications course)

| Course No. | Course Name | Credit Hours |
| :---: | :---: | :---: |
| EPT 111L | Environmental Technology I. | 3 |
| EPT 113A | Hazards and Protection Training I.. | . 1 |
| EPT 113B | Hazards and Protection Training II. | 2 |
| EPT 132 | Environmental Chemistry. | 3 |
| EPT 173 | Water Quality Protection. | ....... 3 |

EPT 211L Environmental Technology/II Lab ..... 4
EPT 214A Occupational Safety I ..... 1
EPT 214B Occupational Safety II. ..... 1
EPT 214C Occupational Safety III ..... 1
EPT 215 Environmental Instrumentation and Anal. ..... 3
EPT 299 Cooperative Education (or approved elective) ..... 3
Computer Requirement
BA 150 Introduction to Computer Processing or CP 176 Introduction to Technology Computer Applications or CSCI 101 Computer Literacy ..... 4
Required Arts \& Sciences Courses
BIO 121/121L Principles of Biology I/Lab or BIO 123/124L Biology for Health Sciences/Lab ..... 4
CHEM 111/112L Introduction to Chemistry/Lab or CHEM 121/121L General Chemistry I/Lab ..... 4
CHEM 212 Organic Chemistry and Biochemistry ..... 4
Communications Elective (oral communications course) ..... 3
ENG $101 \quad$ College Writing. ..... 3
ENG 119 Technical Communications ..... 3
Math Electives (MATH 120 and/or higher) ..... 6-7
PHYS 102 or higher. ..... 3
Humanities/Social or Behavioral Science Elective ..... 3
Total. ..... 62-63
Approved Elective Courses
EPT 171 Introduction to Safety Management ..... 3
EPT 172 Introduction to Soil Science. .....  3
EPT 174 Basic Site Remediation Technology .....  3
EPT 175 Pest Management. ..... 3
EPT 176 Food Resources and the Environment .....  3
EPT 180 Horticulture .....  3
EPT 182 Landscape Irrigation Design ..... 3
EPT 296 Special Topics. ..... 1-6
EPT 297 Special Problems ..... Variable
EPT 299 Cooperative Education .....  3

## FINANCIAL SERVICES

## Business Occupations Department

he Financial Services program prepares students for entry-level positions and job advancement as tellers, operations supervisors, customer assistants, service representatives and support staff for the growing financial services market.

Information about this program is available from the associate dean at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.

A suggested schedule per term for the certificate/associate of applied science degree program in Financial Services includes:

## Certificate

Term 1: ACCT 111, BA 113 or 133, BA 121 or ENG 101, BA 150, BANK 101
Term 2: ACCT 101, BA 222, BANK 103 or BA 211, BANK 105
Term 3: ACCT 102, BA 252, BANK 109, BANK 111, approved elective

## Additional Degree Requirements

Term 3: COMM 130
Term 4: Approved elective, ENG 102 or 119 or 219 or COMM 232, ECON 200, MATH 121 or 150 or 162 or 180
Term 5: MATH 145 or 245, SOC 101, PHIL 245B, ECON 201
Course No. Course Name
Credit Hours
ACCT 101 Accounting I
or ACCT 101A and ACCT 101B ..... 6
ACCT 102 Accounting II ..... 3
ACCT 111 Business Math ..... 3
BA 113 Introduction to Business or BA 133 Principles of Management (depending on business experience) ..... 3
BA 121 Business English or ENG 101 College Writing (ENG 101 required for degree) ..... 3
BA 150 Introduction to Computers (or CP 176, or CSCI 101) ..... 4
BA 222 Principles of Marketing ..... 3
BA 252 Customer Relations ..... 3
BANK 101 Principles of Banking ..... 3
BANK 103 Law and Banking Principles or BA 211 Business Law ..... 3
BANK 105 Consumer Lending ..... 3
BANK 109 Bank Accounting (5 weeks) ..... 1
BANK 111 Personal Financial Management (5 weeks) ..... 1
Approved Electives ..... 3
Total Required for Certificate ..... 42
Additional Degree Requirements
Additional Approved Elective .....  3
COMM 130 Public Speaking ..... 3
ECON 200 Macroeconomics ..... 3
ECON 201 Microeconomics ..... 3
ENG 102 or 119 or 219 or COMM 232 .....  3
MATH 121 or 150 or 162 or 180 ..... 3-4
MATH 145 Introduction to Probability and Statistics or MATH 245 ..... 3
SOC 101 Introduction to Sociology ..... 3
PHIL 245B Ethics ..... 3
Total Required for Degree ..... 69-70
Approved Electives
ACCT 240 Tax Accounting I ..... 3
ACCT 254 Electronic Spreadsheets ..... 3
BA 101 Introduction to Quality Management (5 weeks) ..... 1
BA 102 Fundamentals of Continuous Quality Improvement (CQI) (5 weeks) ..... 1
BA 103 Quality Tools (5 weeks) ..... 1
BA 104 Team Building for Quality (5 weeks) ..... 1
BA 105 Re-engineering for Quality (5 weeks) ..... 1
BA 106 Quality Leadership (5 weeks) ..... 1
BA 215 Money and Banking ..... 3
BA 270 Real Estate Law .....  3
BA 271 Real Estate Practice ..... 3
BA 272 Real Estate Appraisal .....  3
BA 273 Real Estate Finance. ..... 3
BANK 107 Analyzing Financial Statements .....  3
BANK 115 Commercial Lending ..... 3
BANK 296 Financial Services Topics ..... 1-3
BANK 297 Special Problems ..... Variable
BANK 298 Internship ..... 4
BANK 299 Cooperative Education ..... 4
CIS Courses ..... 1-3
Science, Fine Arts, Language (other than English) ..... 1-6

## FIRE SCIENCE

Trades \& Service Occupations Department

The Fire Science associate degree program offers career preparation for students with a strong interest in thefields of fire protection and emergency response. Upon completion of the associate of applied science degree,graduates will be qualified for a variety of fire service and emergency response positions in the fields of fireprotection services, industrial fire protection, hazardous materials, insurance services, fire protection systems serviceand fire prevention. This program maintains a close working relationship with area providers of fire protection andemergency response services.
The program consists of a comprehensive core courses supplemented by a wide range of electives. In addition, the student will complete Arts \& Sciences courses. It is recommended that entering students meet with the faculty to discuss their career and educational objectives.
Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3762.
A suggested schedule per term includes:
Term 1: FS 102, 103, FITT 170, EPT 214A, 214B, 214C, ENG 101, MATH 120
Term 2: FS 111, 112, BA 150 or CP 176 or CSCI 101, CHEM 111/112L, ENG 119, COMM 130
Term 3: FS 201, 202, 203, 211, EMS 160L, PSY 105 or higher, SOC 101
Term 4: FS 212, 213, 214, 215, 216 or 299 ( 15 credits only), PHYS 102, SOC 216

## DEGREE REQUIREMENTS

Course No. Course Name ..... Credit Hours
FITT $170 \quad$ Physical Fitness I ..... 1
EPT 214A Occupational Safety I ..... 1
EPT 214B Occupational Safety II ..... 1
EPT 214C Occupational Safety III ..... 1
FS 102 Fire Service Organization ..... 3
FS 103 Introduction to Fire Science ..... 3
FS 111 Fire Prevention ..... 3
FS 112 Building Construction ..... 3
FS 201 Fire Protection Systems ..... 3
FS 202 Managing Community Fire Protection .....  3
FS 203 Hazardous Material ..... 3
FS 211 Incident Command and Control ..... 3
*EMS 160L Basic Emergency Medical Technician Skills ..... 6
*FS 212 Fire Investigation ..... 3
*FS 213 Industrial Fire Protection ..... 3
*FS 214 Facilities Inspection ..... 3
*FS 215 Tactics I ..... 3
*FS 216 Tactics II ..... 3
*FS 299 Cooperative Education (may be repeated for up to 9 credits) .....  3
*Students have the option of any of these courses for a total of 15 credit hours.
Computer Requirement
BA 150 Introduction to Computer Processing
or CP 176 Introduction to Technology Computer Applications
or CSCI 101 Computer Literacy ..... 4
Required Arts \& Sciences Courses
CHEM 111/112L Introduction to Chemistry/Lab ..... 4
COMM 130 or higher ..... 3
ENG 101 College Writing ..... 3
ENG 119 Technical Communications ..... 3
MATH 119 or higher ..... 4
PHYS 102 Introduction to Physics ..... 3
PSY 105 or higher ..... 3
SOC 101 Introduction to Sociology ..... 3
SOC 216 Ethnic and Minority Groups ..... 3
Total ..... 76
Optional Courses
EPT 296 Special Topics. ..... 1-6
EPT 297 Special Problems Variable

## FITNESSTECHNICIAN

## Trades \& Service Occupations Department

The Fitness Technician (FITT) certificate program's intent is to increase the availability of qualified professionals who assess an apparently healthy individual's present physical fitness level and health status as well as design and implement an appropriate exercise program. The goals are:

1. To prepare individuals for employment in the health and fitness industry as personal fitness trainers.
2. To prepare individuals to sit for the American College of Sports Medicine's Health/Fitness Instructor and the National Strength and Conditioning Association’s Certified Personal Trainer certification exams.
3. To provide course work for continuing education units (CEUs) required by certifying organizations to maintain certification as a personal fitness trainer.
In order to graduate from the Fitness Technician program, a student must have current American Red Cross or American Heart Association CPR certification.

The program also offers fitness classes that are required for other programs and are open to all students.
Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3762.

A suggested schedule includes:
Term 1: FITT 209, 211, 277, computer course
Term 2: FITT 225, 289, 290, 298 or 299

## CERTIFICATE REQUIREMENTS

FITT 209 Introduction to Exercise Physiology ..... 3
FITT 211 The Business of Personal Fitness Training ..... 3
FITT $225 \quad$ Fitness and Weight Control ..... 3
FITT 277 Kinesiology ..... 3
FITT 289 Fitness Assessment and Exercise Prescription .....  3
FITT 290 Exercise Prescription for Special Populations ..... 3
FITT $298 \quad$ Fitness Technician Field Experience or FITT 299 Cooperative Education ..... 3
Computer Requirement
BA 150 Introduction to Computer Processing or CP 176 Introduction to Technology Computer Applications or CSCI 101 Computer Literacy ..... 4
Total ..... 25
Optional Courses
FITT $170 \quad$ Physical Fitness I ..... 1
FITT 171 Physical Fitness II ..... 1
FITT 173 Circuit Training .....  1
FITT 174 Weight Training for Women ..... 1
FITT 175 Beginning Step Aerobics ..... 1
FITT 176 Intermediate Step Aerobics ..... 1
FITT 296 Special Topics. ..... 1-6
FITT 297 Special Problems ..... Variable

## FOOD SERVICE MANAGEMENT

Business Occupations Department

The Food Service Management (FSMG) certificate program is available to persons interested in the hospitality/food service field who want the skills necessary to become entry-level supervisors or managers. Safety andsanitation procedures are stressed.Classroom instruction includes theory in human relations, supervision and business practices. Cooperativeeducation is available with the supervision of the instructor.Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits.Information about this program is available from the associate dean at 224-3811 or from the Advisement Centersat 224-3177 or 224-5646.
Course No. Course Name Credit Hours
BA 150 Introduction to Computers ..... 4
FSMG 101A Food Sanitation Principles ..... 2
FSMG 101B Applied Food Safety ..... 1
HT 132 Hotel/Motel Human Resources Management ..... 3
HT 164 Food and Beverage Service ..... 3
HT 298
or HT 299
Internship Cooperative Education ..... 4
Total ..... 17

## GAMING MACHINE REPAIR TECHNICIAN

## Business Occupations Department

The Business Occupations Department offers a Verification of Completion upon completion of a cluster of courses from 6 to 28 credit hours that offer skills and competencies in a specific career area. These course clusters may be (1) part of a pathway to a business certificate or an associate of applied science degree or (2) a combination of courses that provide skills and competencies from several business certificates or associate of applied science degrees.

A Verification of Completion provides opportunities for students to gain skills and competencies needed for emerging business strategies and is awarded by the Business Occupations Department. Application for a Verification of Completion may be made with the department upon completion of the course cluster.

Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits.
Information about these courses is available from the Business Occupations Department at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.
Course No. Course Name Credit Hours
BA 131 Business Interpersonal Skills (7.5 weeks) ..... 2
BA 150 Introduction to Computers (or CP 176, or CSCI 101) ..... 4
CIS 130 Microsoft Windows (5 weeks) [previously MMS 150] ..... 1
CIS 201 Hardware and Software Administration [previously MMS 201] ..... 3
HT 254 Gaming Controls .....  3
HT 255 Gaming Machine Repair ..... 1
HT 298 Internship or HT 299 Cooperative Education ..... 4
Total ..... 18

## HEALTHCARE TECHNICIAN

## Health Occupations Department

The one-term Healthcare Technician certificate program prepares persons to assist nurses in hospitals. Topics include nursing tech skills, health unit coordinating, and communication skills. Students learn sterile techniques, urinary catheterizations, basic respiratory care and basic physical therapy skills. They also learn to transcribe doctor's written orders, order supplies, place EKG leads, draw blood, collect specimens, prepare and maintain equipment, and communicate with patients, families and healthcare personnel.

The 12-week, 330-hour, program includes six weeks of classroom/lab instruction and six weeks of experience in local hospitals and/or clinics.

There is a $\$ 55$ uniform fee that includes a lab coat, bandage scissors, nametag, hospital parking permits and health tests. There is a $\$ 10$ supply fee. Students are required to have their own stethoscopes and transfer belts.
Prerequisites are:
■ graduation from TVI Nursing Assistant program within past two years and C.N.A. certification or:
■ C.N.A. certification and MATH 099 and ENG 099, RDG 099 or equivalent
■ successful completion of written Nursing Assistant exam
■ successful completion of NA skill exam

- current CPR certification

■ current immunizations (MMR, PPD, hepatitis B, and tetanus)
Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits. Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-4121.
Course No. Course Name
Credit Hours
HCT 102/102L HCT Health Unit Coordinator Skills and Laboratory .................................................................... 2
HCT 103/103L HCT Special Skills Theory and Laboratory ................................................................................... 4
HCT 104 HCT Communication Skills ............................................................................................................ 2
HCT 120C HCT Multi-skilled Clinical ............................................................................................................... 3
HCT 130C HCT Health Unit Coordinating Clinical .......................................................................................... 1
Total ............................................................................................................................................... 12

## HEALTH INFORMATION TECHNOLOGY (pending CHE approval)

## Business Occupations Department

The Health Information Technology (HIT) and associate of applied science degree program provides students the opportunity to develop the technical skills necessary for managing health information within the healthcare delivery system. The health information field has employment opportunities in hospital medical record/ health information departments, clinics, physician offices, long-term care facilities, ambulatory care facilities, managed care organizations, insurance agencies, state health departments, and private industry.

This is a two- or three-year program depending on full- or part-time status. Specific requirements must be met before declaring HIT as a major. Acceptance to TVI does not guarantee admission to the Health Information Technology program. Admission to the program is on a first-qualify, first-serve basis. Approval to declare HIT as a major and enroll in the program is granted by the associate dean. Enrollment is limited. Taking courses that apply to or are part of the HIT curriculum does not guarantee acceptance to the program.

Students will enter the HIT program as a cohort. Students may enroll in general education/science courses prior to admission to the program. A grade of "C" or better must be achieved in every required course. All HIT courses must be taken in sequence with a cohort group and will be offered in the evening or on the weekend. Two unpaid clinical experiences must be completed in the final year of the program.

At the appropriate time, the associate dean will apply for accreditation from the Commission on Accreditation of Allied Health Education Programs in collaboration with the Council on Education of the American Health Information Management Association. When accreditation is granted, HIT graduates qualify to take the national registration exam as a Registered Health Information Technician (RHIT).

The following are the basic requirements for eligibility to the Health Information Technology Program:
■ High school graduate or GED equivalent

- Entry requirements of RDG 100 or equivalent, ENG 100 or equivalent, and MATH 100A or equivalent; BIO 100 or equivalent recommended.
The following steps must be completed for application to the program:
■ Official transcripts must be on file in the Albuquerque TVI Records Office. High school dipploma or GED score is required. College transcripts that are to be evaluated for transfer credit should be requested as soon as possible.
■ An interview with the Health Information Technology Associate Dean.

A suggested schedule per term for the associate of applied science degree in Health Information Technology includes:
DegreeTerm 1: BA 150, BIO 136, 139L, CR 132, HT 115Term 2: ENG 101, HIT 120, 130, 150, 200
Term 3: HIT 140, 160, 210, 220, MATH 119
Term 4: ENG 119, CIS 140, HIT 215, 230, 240
Term 5: COMM 221, HIT 250, 260, 295, social science/humanities elective
DEGREE REQUIREMENTS
Course No. Course Name Credit Hours
BA 150 Introduction to Computers or CP 176, or CSCI 101) ..... 4
BIO 136 Human Anatomy and Physiology for Non-Majors ..... 3
BIO 139L Human Anatomy and Physiology for Non-Majors Laboratory ..... 1
CIS 140 PowerPoint Fundamentals .....  1
COMM $130 \quad$ Public Speaking or COMM 221 Interpersonal Communication Studies. .....  3
CR 132 Medical Terminology ..... 3
ENG 101 College Writing ..... 3
ENG 119 Technical Communication ..... 3
HIT 115 Healthcare Delivery Systems ..... 2
HIT 120 Health Data Content and Structure ..... 3
HIT 130 Principles of Diseases ..... 3
HIT 140 Computers in Healthcare ..... 3
HIT 150 Legal/Ethical Aspects for Health Information ..... 3
HIT 160 Pharmacology and Laboratory Procedures .....  3
HIT 200 Classification of Diseases I (ICD-CM) ..... 3
HIT 210 CPT Coding .....  3
HIT 215 Classification of Diseases II ..... 3
HIT 220 Professional Practice Experience I ..... 1
HIT 230 Reimbursement Methodologies ..... 3
HIT 240 Data Analysis and Quality Assessment ..... 4
HIT 250 Health Information Supervision ..... 3
HIT 260 Professional Practice Experience II ..... 2
HIT 295 Health Information Technology Seminar .....  1
MATH 119 Methods of Problem Solving (or higher except MATH 215 and 295) ..... 3-4
Social Science/Humanities Elective .....  3
Total Required for Degree ..... 67-68

## HEALTH UNIT COORDINATOR

## Health Occupations Department

Whe Health Unit Coordinator certificate program prepares persons to perform secretarial and management skills in the hospital, elder care center or out-patient clinic. Transcribing doctors' written orders, typing, ordering supplies, answering the telephone, working with computers and communicating with patients, visitors and staff are typical activities. The 12-week program has eight weeks of classroom theory and four weeks of clinical practice in local hospitals. It is offered during the fall and spring terms only at the South Valley Campus.

Enrollment in the Health Unit Coordinator program requires a high school diploma or equivalent and a passing score on the reading, English, and math placement test, and basic computer skills. Students must also have good written and oral communication skills because they perform a pivotal role with all hospital personnel. There is a $\$ 37$ uniform fee that covers the cost of a uniform top, hospital parking permits, nametag and health tests. Neutralcolored slacks or skirts are required for clinical but are not covered by the fee.

Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits.
Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-5069.
HUC 101L Health Unit Coordinator Theory and Lab ..... 8
HUC 131C Health Unit Coordinator Clinical Practice ..... 4
Total ..... 12

## HELP DESK SUPPORT

## Business Occupations Department

$T$
he Business Occupations Department offers a Verification of Completion upon completion of a cluster of courses from 6 to 28 credit hours that offer skills and competencies in a specific career area. These course clusters may be (1) part of a pathway to a business certificate or an associate of applied science degree or (2) a combination of courses that provide skills and competencies from several business certificates or associate of applied science degrees.

A Verification of Completion provides opportunities for students to gain skills and competencies needed for emerging business strategies and is awarded by the Business Occupations Department. Application for a Verification of Completion may be made with the department upon completion of the course cluster.

Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits. Information about these courses is available from the Business Occupations Department at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.
Course No. Course Name
Credit Hours
AA 170 Business Telephone Techniques (5 weeks) ..................................................................................... 1
AA 171 Working with the Challenging Customer (5 weeks) .................................................................... 1
BA 131 Business Interpersonal Skills (7.5 weeks) ....................................................................................... 2
BA 150 Introduction to Computers (or CP 176, or CSCI 101).................................................................... 4
CIS 115 Help Desk Technology ................................................................................................................... 3
CIS 116 Help Desk Support ...................................................................................................................... 3
CIS 123 Microsoft Word for Windows [previously MMS 135] .................................................................. 3
CIS 130 Introduction to Windows (5 weeks) [previously MMS 150........................................................... 1
CIS 131 Intermediate Windows (5 weeks) [previously MMS 164] ............................................................ 1
CIS 135 Windows 2000 Professional (5 weeks) [previously MMS 162] ................................................... 1
CIS 136 Intermediate Windows 2000 Professional (5 weeks) ..................................................................... 1
CIS 150 Excel Fundamentals (5 weeks) [previously MMS 158] .................................................................. 1
CIS 151 Intermediate Excel (5 weeks) [previously MMS 166] ................................................................... 1
CIS 152 Advanced Excel (5 weeks) [previously MMS 167] ....................................................................... 1
CIS 155 Access Fundamentals (5 weeks) [previously MMS 159] ................................................................ 1
CIS 156 Intermediate Access (5 weeks) [previously MMS 168] .................................................................. 1
CIS 157 Advanced Access (5 weeks) [previously MMS 169] .................................................................... 1
CIS 160 Introduction to the Internet (5 weeks) [previously MMS 160] ..................................................... 1
CIS 201 Hardware Software Administration [previously MMS 201] ......................................................... 3
CIS 202 Advanced Hardware Software Management .................................................................................. 3
Total ................................................................................................................................................ 34

## HELP DESK TECHNICIAN

## Business Occupations Department

$T$
he Business Occupations Department offers a Verification of Completion upon completion of a cluster of courses from 6 to 28 credit hours that offer skills and competencies in a specific career area. These course clusters may be (1) part of a pathway to a business certificate or an associate of applied science degree or (2) a combination of courses that provide skills and competencies from several business certificates or associate of applied science degrees.

A Verification of Completion provides opportunities for students to gain skills and competencies needed for emerging business strategies and is awarded by the Business Occupations Department. Application for a Verification of Completion may be made with the department upon completion of the course cluster.

Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits. Information about these courses is available from the Business Occupations Department at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.
Course No. Course Name Credit Hours
AA 170 Business Telephone Techniques (5 weeks) ..... 1
AA 171 Working with the Challenging Customer (5 weeks) ..... 1
BA 131 Business Interpersonal Skills ( 7.5 weeks) ..... 2
BA 150 Introduction to Computers(or CP 176, or CSCI 101) ..... 4
CIS 115 Help Desk Technology ..... 3
CIS 116 Help Desk Support ..... 3
CIS 123 Microsoft Word for Windows [previously MMS 135] .....  3
CIS 130 Introduction to Windows (5 weeks) [previously MMS 150 ..... 1
CIS 131 Intermediate Windows (5 weeks) [previously MMS 164] ..... 1
CIS 135 Windows 2000 Professional (5 weeks) [previously MMS 162] ..... 1
CIS 136 Intermediate Windows 2000 Professional (5 weeks) ..... 1
CIS 160 Introduction to the Internet (5 weeks) [previously MMS 160] ..... 1
CIS 201 Hardware Software Administration [previously MMS 201] .....  3
CIS 202 Advanced Hardware Software Management .....  3
Total ..... 28

## HOSPITALITY AND TOURISM

## Business Occupations Department

The Hospitality and Tourism (HT) program combines general business knowledge with practical skills necessary for a variety of employment opportunities in the continually changing hospitality and tourism industry. The graduates should be in a position to provide employers with specialized knowledge and skills and to engage immediately in the day-to-day activities of a hospitality and tourism business.

The degree program offers students their choice of three concentrations: Gaming Operations and Casino Management, Hospitality Operations and Hotel Management and Golf Course Supervision and Operations.

The four-term certificate program requires at least seven (7) Educational Institute American Hotel \& Motel Association (EI-AH\&MA) courses developed by industry leaders in the global hospitality industry. This is an additional credentialing process. Students interested in receiving the AH\&MA Educational Institute certificate should see the associate dean.

Information about this program is available from the associate dean at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.

A suggested schedule per term for the certificate/associate of applied science degree program in Hospitality and Tourism includes:

## Certificate

Term 1: BA 150, HT 101, ENG 101, COMM
Term 2: ACCT 101A, HT 104, 108, 132
Term 3: HT 141, 168, HT 298 or 299 , HT concentration course
Term 4: HT concentration choice, A\&S course
Additional Degree Requirements
Term 5: BA 121, HT 221, 295, HT elective
Term 6: A\&S courses

## HOSPITALITY AND TOURISM CORE REQUIREMENTS

Course No. Course Name ..... Credit Hours
ACCT 101A Accounting IA ..... 3
BA 150 Introduction to Computers (or CP 176, or CSCI 101) ..... 4
COMM 130 or 221 or 232 or 240 ..... 3
ENG 101 College Writing .....  3
HT 101 Introduction to Hospitality and Tourism Today ..... 3
HT 104 Tourism and the Hospitality Industry ..... 3
HT 108 Hospitality Supervision ..... 3
HT 132 Hotel/Motel Human Resources Management ..... 3
HT 141 Marketing of Hospitality Services ..... 3
HT 168 Food and Beverage Controls ..... 3
HT 298 Internship
or HT 299 Cooperative Education ..... 4
Subtotal ..... 35
Concentrationsfor Certificate or Degree (one concentration required)
Gaming Operations and Casino Management Concentration
HT 131 Club Management ..... 3
HT 250 Gaming Operations ..... 3
HT 252 Casino Management ..... 3
HT 254 Gaming Controls ..... 3
Total Required for Certificate ..... 47
Hospitality Operations and Hotel Management Concentration
HT 106 Front Office Procedures .....  3
HT 128 Hotel/Motel Housekeeping Management .....  3
HT 172 Hospitality Purchasing Management ..... 3
HT 206 Hospitality Industry Computer Systems ..... 3
Total Required for Certificate ..... 47
Golf Course Supervision and Operations Concentration
HT 131 Club Management ..... 3
HT 260 Golf Course Operations .....  3
HT 262 Golf Course Maintenance ..... 3
HIT 296 Topics Course ..... 3
Total Required for Certificate ..... 47
Additional Degree Requirements
BA 121 Business English ..... 3
ECON 200 Macroeconomics or higher level .....  3
HT Approved Elective* .....  3
HT 221 Hospitality Law ..... 3
HT 295 Managerial Decisions in the Hospitality Industry .....  3
MATH 119 Methods of Problem Solving or higher (except MATH 215 and 296) ..... 3-4
PHIL 245B Business Ethics .....  3
Total Required for Degree ..... 68-69
Approved Electives
AA 101 Beginning Keyboarding .....  3
BA 200 or higher .....  3
CIS Courses ..... 3-4
ECM 220 Web Marketing .....  3
FSMG 101A Food Sanitation Principles ..... 2
FSMG 101B Applied Food Safety ..... 1
HT 106 Front Office Procedures ..... 3
HT 121 Hotel/Motel Organization and Administration ..... 3
HT 124 Managing Quality in the Hospitality Industry ..... 3
HT 126 Hotel/Motel Facilities Management .....  3
HT 128 Hotel/Motel Housekeeping Management .....  3
HT 130 Resort Management .....  3
HT 131 Club Management .....  3
HT 134 Hospitality Energy and Water Management .....  3
HT 136 Hospitality Industry Training .....  3
HT 138 Hospitality Industry Engineering System ..... 3
HT $144 \quad$ Hospitality and Sales Marketing ..... 3
HT 146 Convention Management and Service ..... 3
HT 161 Hotel/Motel Food and Beverage Management ..... 3
HT 164 Food and Beverage Service ..... 3
HT 166 Quality Sanitation Management ..... 3
HT 170 Food Production Principles ..... 3
HT 172 Hospitality Purchasing Management ..... 3
HT 201 Financial Accounting for the Hospitality Industry ..... 3
HT 204 Managerial Accounting for the Hospitality Industry ..... 3
HT 206 Hospitality Industry Computer Systems ..... 3
HT 224 Hotel/Motel Law ..... 3
HT 226 Hotel/Motel Security Management ..... 3
HT 250 Gaming Operations ..... 3
HT 252 Casino Management ..... 3
HT 254 Gaming Controls ..... 3
HT 255 Gaming Machine Repair ..... 1
HT 260 Golf Course Operations ..... 3
HT 262 Golf Course Maintenance ..... 3
HT 296 Topics Course ..... 1-3
HT 297 Special Problems ..... Variable
IB 101 Introduction to International Business ..... 3*Courses not chosen to fulfill certificate or degree requirement may be taken as an elective.All elective courses are not offered every term.
HUMAN RESOURCE ASSISTANT
Business OccupationsDepartment

The Business Occupations Department offers a Verification of Completion upon completion of a cluster of courses from 6 to 28 credit hours that offer skills and competencies in a specific career area. These course clusters may be (1) part of a pathway to a business certificate or an associate of applied science degree or (2) a combination of courses that provide skills and competencies from several business certificates or associate of applied science degrees.

A Verification of Completion provides opportunities for students to gain skills and competencies needed for emerging business strategies and is awarded by the Business Occupations Department. Application for a Verification of Completion may be made with the department upon completion of the course cluster.

Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits.
Information about these courses is available from the Business Occupations Department at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.
Course No. Course Name Credit Hours
BA 133 Principles of Management ..... 3
BA 230 Employment Law for Business ..... 3
BA 233 Organizational Behavior ..... 3
BA 236 Human Resource Management .....  3
BA 255 Supervision ..... 3
Total ..... 15

## INTERNATIONAL BUSINESS

## Business OccupationsDepartment

The International Business (IB) program prepares students for business in today's global environment. Students develop an understanding of international business and the globalization of the economy. Fundamental concepts and procedures to assess global market opportunities, to analyze international finance opportunities, and to understand the challenges of managing cultural differences are emphasized.

The program provides a foundation in the analytical, interpersonal and technology skills necessary to be effective in today's multinational organizations, government agencies, or entrepreneurial small businesses.

In addition to the certificate and associate of applied science degree, the following Verification of Completions have been added for students seeking knowledge/skills in a specific area (please refer to next section). They include International Business Fundamentals, International E-Commerce, International Entrepreneurship and International Retail Business.

Information about this program is available from the associate dean at 224-3820 or from the Advisement Centers at 224-3177 or 224-5646.

A suggested schedule per term for the certificate/associate of applied science degree in International Business includes:

## Certificate

Term 1: ACCT 111, BA 121 or ENG 101, BA 131, 150, IB 101
Term 2: ACCT 101, CIS 130, 140, 160, GEOG 102 or COMM 291, IB 201
Term 3: ACCT 102, IB 202, 203, foreign language
Term 4: GEOG 201, IB 205, foreign language

## Additional Degree Requirements

Term 4: ENTR 102, MATH, PHIL 245B, approved elective

## CERTIFICATE AND DEGREE REQUIREMENTS

Course No. Course Name ..... Credit Hours
ACCT 101 Accounting I
or ACCT 101A and ACCT 101B ..... 6
ACCT 102 Accounting II ..... 3
ACCT 111 Business Math .....  3
BA 121 Business English
or ENG 101 College Writing (required for a degree) ..... 3
BA 131 Business Interpersonal Skills ..... 2
BA 150 Introduction to Computers (or CP 176, or CSCI 101) ..... 4
CIS 130 Microsoft Windows ..... 1
CIS 140 PowerPoint Fundamentals ..... 1
CIS 160 Introduction to the Internet ..... 1
GEOG 102 Human Geographyor COMM 291 Intercultural Communication Studies3
GEOG 201 World Regional Geography ..... 3
IB 101 Introduction to International Business ..... 3
IB 201 International Marketing ..... 3
IB 202 International Management ..... 3
IB 203 International Finance and Trade ..... 3
IB 205 Fundamentals of Exporting/Importing .....  3
Foreign Language* ..... 6-7
Total Required for Certificate ..... 51-52
For a certificate, students must have at least 6 credit hours of $A \& S$ courses. Degree students must have at least 15 credit hours of $A \& S$ courses.
*Various languages are acceptable.
Additional Degree Requirements
ENTR 102 Entrepreneurship in a Global Setting .....  3
MATH 119 Methods of Problem Solving or higher (except MATH 215 and 296) ..... 3-4
PHIL 245B Business Ethics .....  3
Approved Electives ..... 3-4
Total Required for Degree ..... 63-66
Approved Electives
BA 122 Business Writing .....  3
BA 211 Business Law .....  3
BA 296 Topics ..... 1-3
BA 297 Special Problems ..... Variable
BA 298 Internshipor BA 299 Cooperative Education4
CIS 150 Excel Fundamentals (5 weeks) [previously MMS 158 ..... 1
CIS 151 Intermediate Excel (5 weeks) [previously MMS 166] ..... 1
CIS 152 Advanced Excel (5 weeks) [previously MMS 167] ..... 1
CIS 155 Access Fundamentals (5 weeks) [previously MMS 159] ..... 1
CIS 156 Intermediate Access (5 weeks) [previously MMS 168] ..... 1
CIS 157 Advanced Access (5 weeks) [previously MMS 169] ..... 1

## INTERNATIONAL BUSINESS VERIFICATIONS OF COMPLETION

## Business Occupations Department

T
he Business Occupations Department offers a Verification of Completion upon completion of a cluster of courses from 6 to 28 credit hours that offer skills and competencies in the international business career area. These course clusters may be (1) part of a pathway to a business certificate or an associate of applied science degree or (2) a combination of courses that provide skills and competencies from several business certificates or associate of applied science degrees.

A Verification of Completion provides opportunities for students to gain skills and competencies needed for emerging business strategies and is awarded by the Business Occupations Department. Application for a Verification of Completion may be made with the department upon completion of the course cluster.

Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits.
Information about these courses is available from the Business Occupations Department at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.

## INTERNATIONAL BUSINESS FUNDAMENTALS

Course No. Course Name Credit Hours
IB 101 Introduction to International Business ..... 3
IB 201 International Marketing ..... 3
IB 202 International Management .....  3
IB 203 International Finance and Trade ..... 3
ENTR 102 Entrepreneurship in a Global Setting
or IB 205 Fundamentals of Exporting/Importing ..... 3
Total ..... 15
INTERNATIONAL E-COMMERCE
Course No. Course Name ..... Credit Hours
ECM 105 Web Business ..... 3
ECM 176 Introduction to Internet Commerce (5 weeks) ..... 1
ECM 220 Web Marketing ..... 3
ENTR 102 Entrepreneurship in a Global Setting or IB 101 Introduction to International Business ..... 3
IB 201 International Marketing
or IB 202 International Business .....  3
Total ..... 13
INTERNATIONAL ENTREPRENEURSHIP
Course No. Course Name ..... Credit Hours
ENTR 101 Entrepreneurship ..... 6
ENTR 102 Entrepreneurship in a Global Setting ..... 3
ECM 105 Web Business or ECM 201 E-Commerce Business Planning ..... 3
IB 298
or IB 299 Cooperative Education ..... 4
Total ..... 16
Course No. Course Name Credit Hours
HT 104 Tourism and the Hospitality Industry ..... 3
HT 141 Marketing of Hospitality Services ..... 3
IB 101 Introduction to International Business .....  3
IB 202 International Management .....  3
Total ..... 12
INTERNATIONAL RETAIL BUSINESS
Course No. Course Name Credit Hours
IB 101 Introduction to International Business ..... 3
IB 202 International Management ..... 3
BA 253 Retailing ..... 3
ECM $220 \quad$ Web Marketing
or BA 222 Principles of Marketing ..... 3
Total ..... 12

## JUDICIAL STUDIES

## Business Occupations Department

The Judicial Studies (JUD) certificate program provides educational and professional development courses for court personnel and individuals interested in a career with New Mexico courts.
The program familiarizes students with the operations of the New Mexico municipal, magistrate, metropolitan, district, appellate and supreme courts, as well as federal and tribal courts. Ethical issues are also addressed. Students are introduced to substantive and procedural law, basic legal skills, fundamental legal theory and legal analysis skills.

To earn a certificate in Judicial Studies, students must complete core courses in computer literacy, introduction to the judicial system, interpersonal communication, business communication, basic English and basic math and an internship. In addition, students are required to complete three credits of elective coursework in each of the following categories: legal, government and cultural, and management.

Information about this program is available from the Judicial Studies Office at 224-3845 or from the Advisement Centers at 224-3177 or 224-5646.

A suggested schedule per term for the certificate in Judicial Studies includes:
Term 1: BA 150, COMM 221 or 225, ENG 101, JUD 101, 102, elective
Term 2: ACCT 111 or MATH 119 or higher, BA 121 or COMM 232, two electives, JUD 298 or 299

## CERTIFICATE REQUIREMENTS

Course No. Course Name Credit Hours
ACCT 111 Business Math
or MATH 119 Methods of Problem Solving (or higher) ..... 3-4
BA $121 \quad$ Business English
or COMM 232 Business and Professional Communication Studies ..... 3
COMM 221 Interpersonal Communication Studies
or COMM 225 Small Group Communication Studies .....  3
BA 150 Introduction to Computers (or CP 176, or CSCI 101) ..... 4
ENG 101 College Writing .....  3
JUD 101 Introduction to Judicial Studies .....  3
JUD 102 Introduction to Court Operations and Ethics .....  1
JUD 298 Internship or JUD 299 Cooperative Education ..... 4
Approved Electives ..... 9
Total Required for Certificate ..... 33-34
Students complete three credits from each of the following three categories:
Approved Legal Electives
BA 211 Business Law
or PL 102 Business Organizations [previously LAS 102] ..... 3
CJ 107 Criminal Procedure
or PL 206 Criminal Litigation [previously LAS 206] ..... 3
PL 101 Introduction to Paralegal Studies [previously LAS 101] ..... 3
PL 111 American Law and Ethics [previously LAS 111] ..... 3
PL 124 Legal Research and Writing I [previously LAS 124] .....  3
PL 201 Contract Law [previously LAS 201] ..... 3
PL 203 Civil Litigation [previously LAS 203] ..... 3
SOC 111 Criminal Justice System ..... 3
SOC 212 Juvenile Delinquency .....  3
Approved Government and Cultural Electives
COMM 291 Intercultural Communication Studies ..... 3
CST 250 Introduction to Native American Studies ..... 3
CST 296 Topics in Cultural Studies ..... 1-3
HIST 260 History of New Mexico ..... 3
PSCI 200 U.S. Politics ..... 3
PSCI 210 State and Local Politics ..... 3
SPAN 101 Beginning Spanish I (or higher) ..... 3-4
Approved Management Electives
AA 171 Working with the Challenging Customer (5 weeks) ..... 1
ACCT 270 Governmental Accounting ..... 3
BA 131 Business Interpersonal Skills (7.5 weeks) ..... 2
BA 133 Principles of Management .....  3
BA 252 Customer Relations .....  3
MATH 145 Introduction to Probability and Statistics ..... 3
PHIL 245B Ethics .....  3
PL 236 Employment Law [previously LAS 236] ..... 3
PSY 271 Social Psychology ..... 3

## LANDSCAPING

Trades \& Service Occupations Department

The Landscaping certificate program's purpose is to provide training and job placement for individuals whodesire employment in the landscape construction and maintenance industry. Emphasis is on safety, technicalknowledge and development of communication and job related skills.Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from thedirector at 224-3716.
A suggested schedule per term includes:
Term 1: EPT 172, 175, 214A, 214B, 214C CARP 171, Approved Elective
Term 2: EPT 180, 182, PLMB 106L, CARP 170, Approved Elective
Course No. Course Name ..... Credit Hours
EPT 172 Introductory Soil Science ..... 3
EPT 175 Pest Management ..... 3
EPT 214A Occupational Safety I ..... 1
EPT 214B Occupational Safety II ..... 1
EPT 214C Occupational Safety III ..... 1
CARP 171 Construction Trades Blueprint Reading ..... 3
Approved Elective ..... 3-4
EPT 180 Horticulture .....  3
EPT 182 Landscape Irrigation Design ..... 3
PLMB 106L Backflow Prevention .....  2
CARP 170 Carpentry Fundamentals ..... 3
Approved Elective ..... 3-4
Total ..... 29-31
Approved Electives
AUTC 175L Service Fundamentals ..... 4
CARP 102 Foundations Theory ..... 1
CARP 102L Foundations Lab ..... 2
ELTR 170 Electrical Wiring Circuitry ..... 2
EPT 176 Food Resources and the Environment .....  3
EPT 296 Special Topics ..... 1-6
EPT 299 Cooperative Education ..... 3
PLMB 102 Plumbing Systems ..... 1
PLMB 102L Plumbing Systems Lab ..... 2
SCSE 170 Small Engine Skills Improvement I ..... 3
SCSE171L Small Engine Skills Improvement II ..... 3

## LIBERAL ARTS

## Arts \& Sciences Department

The Associate of Arts in Liberal Arts degree is designed to meet diverse educational interests. The degree provides the general curriculum of the first two years of baccalaureate study for transfer purposes or as an end in itself. This degree includes a general education curriculum of 35 credit hours accepted by New Mexico's colleges and universities as the general education core for degree completion.

Courses in disciplines not currently included in the Arts \& Sciences curriculum and courses not offered by the Arts \& Sciences Department may be accepted as transfer credit toward the degree requirements. For information about transfer work, students should contact the Advisement Office.ASSOCIATE OF ARTS IN LIBERAL ARTS DEGREEDiscipline Course PrefixCredit Hours
Communications
English
Journalism
Communication Studies
ENG (writing): 101, 102, 119, 212, 219, 220, 221, 222
JOUR: 151, 251, 298
COMM 221 or 130
Must include ENG 102 and one COMM course ..... 9
Computer Science
Computer Science CSCI 101 ..... 3-4
Social and Behavioral Sciences
Anthropology ANTH
Economics ..... ECON
Geography ..... GEOG
Political Science ..... PSCI
Psychology ..... PSY
Sociology ..... SOC
Must include at least two disciplines ..... 9
Biological and Physical Sciences
Astronomy ASTR
Biology ..... BIO
Chemistry CHEM
Physics ..... PHYS
Must include one lab course ..... 7
Humanities
Cultural Studies ..... CST
History ..... HIST
Humanities ..... HUM
Literature ENG (literature)
Philosophy

                            PHIL
    Religious Studies ..... RLGN
Must include at least two disciplines ..... 9
Mathematics
Mathematics MATH (one course numbered above 120, except MATH 215) ..... 3
Fine Arts and Foreign Languages

| Art | ART |
| :--- | :---: |
| Music | MUS |
| French | FREN |
| Spanish | SPAN |
| Theater | THEA |

Must include at least two disciplines (no more than 3 credit hours of applied or studio art allowed) ..... 9
Electives
Any Arts \& Sciences course, including General Honors (no more than 1 credit hourof physical education allowed.).13-14
Total ..... 64-66

## LICENSED PRACTICAL NURSE REFRESHER

## Health Occupations Department

The LPN Refresher special courses meet the requirements of the State of New Mexico Nursing Practice Act 61-3-24.D. for nurses who have not been actually engaged in nursing for five years or more. It is approved by the New Mexico Board of Nursing. The curriculum focuses on updates in all major areas of nursing practice.

A physical exam, PPD, current immunizations and current CPR certification for healthcare professionals (BLS) are required to start clinical experience. White uniform and shoes and a stethoscope are required for clinical experience.

The $\$ 25$ uniform fee covers the cost of supplies and preventive lab tests in case of needle stick exposure. There are additional fees payable to the New Mexico State Board of Nursing for licensure endorsement and reinstatement if a nursing license has expired. The eight-week course may be offered twice a year, spring and summer, via Distance Learning or on main campus. Students are required to pay a Distance Learning fee if course is offered through Distance Learning. Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-4176.
Course No. Course Name
Credit Hours
LPNR 155L Refresher Theory/Lab ..................................................................................................................... 7
LPNR 165C Refresher Clinical Experience ......................................................................................................... 2
Total ................................................................................................................................................. 9

## MACHINE TOOL TECHNOLOGY

## Trades \& Service Occupations Department

The Machine Tool Technology certificate program qualifies students for job entry as machine tool operators. Courses also may be applied toward a degree in Metals Technology.
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, computer controlled machining centers and other equipment commonly 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 the length of a standard work shift and must have depth perception correctable in both eyes.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3718.
A suggested schedule includes:
Term 1: MATT 101, 102, 103L, 104L, 105L, 108L
Term 2: MATT 111, 113, 117L, 120L, 121L, 122L
Term 3: MATT 202, 208L, 214, 216L, 217L, 218L

| Course No. Course Name | Credit Hours |  |
| :--- | :--- | :--- |
| MATT 101 | Metals Math | 2 |

    MATT 101 Metals Math I ................................................................................................................................... 2
    MATT 102 Metals Blueprint Reading I............................................................................................................ 2
    MATT 103L Basic Lathe Principles ................................................................................................................... 2
    MATT 104L Basic Milling Machine Principles ................................................................................................... 2
    MATT 105L Basic Supporting Machine Tool Principles ..................................................................................... 2
    MATT 108L Basic Measurement and Inspection .................................................................................................. 2
    MATT 111 Metals Math II .................................................................................................................................. 2
    MATT 113 Metals Blueprint Reading II ............................................................................................................. 2
    MATT 117L Intermediate Lathe Principles .......................................................................................................... 2
    MATT 120L Intermediate Milling Machine Principles ........................................................................................ 2
    MATT 121L Intermediate Supporting Machine Tool Principles .......................................................................... 2
    MATT 122L Computer Numerical Control I ...................................................................................................... 2
    MATT 202 Metallurgy ..................................................................................................................................... 2
    MATT 208L Advanced Lathe Principles ............................................................................................................. 2
    MATT 214 Machine Tool Technology CAD .................................................................................................... 2
    MATT 216L Advanced Milling Machine Principles ........................................................................................... 2
    MATT 217L Advanced Supporting Machine Tool Principles ............................................................................... 2
    MATT 218L Computer Numerical Control II ..................................................................................................... 2
        Total ............................................................................................................................................... 36
        Optional Courses
        MATT 173 Machine Tool Technology Skills ................................................................................................... 3
        MATT 174 Advanced Machine Tool Technology Skills .................................................................................. 3
        MATT 296 Special Topics ............................................................................................................................. 1-6
        MATT 297 Special Problems ................................................................................................................ Variable
    
## MANUFACTURING TECHNOLOGY

## Technologies Department

The Manufacturing Technology program, offering both certificate and associate degree options, provides students with a broad base of skills in analog and digital electronics along with a good communication and science background. The program offers concentrations in Semiconductor Manufacturing, Facilities Maintenance and General Manufacturing, one of which a student must complete along with core courses for an associate degree. To receive a certificate in Manufacturing Technology with a Semiconductor concentration, the student must complete all defined courses.

Training is provided in the fundamental concepts of electronics and mechanical components. Circuits, which have application in the semiconductor, digital equipment manufacturing, measurement and control, are covered.

Laboratory facilities containing modern equipment for testing, troubleshooting, calibrating, analyzing and designing electronic systems and for processing wafers are used in the Semiconductor concentration. Such systems include computers, electronic instruments, and wafer processing equipment and electromechanical equipment. Other laboratory facilities provide the ability to analyze and test various materials and components.

Students are encouraged to join the TVI chapter of the Society of Manufacturing Engineers (SME). Students entering Manufacturing Technology courses must meet the prerequisites of Math 100B or equivalent on placement test, RDG 099 or equivalent, and CP 176 or equivalent.

Entry into a course without the prerequisite may be allowed with the permission of the program director. Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at (505) 224-3340.
Course No. Course Name Credit Hours
ELEC 103A Electronics Fundamentals A
ELEC 103A Electronics Fundamentals A ..... 4 ..... 4
and ELEC 103B Electronics Fundamentals B ..... 4
or ELEC 103L Electronics Fundamentals .....  8
ELEC 104 Electronics Mathematics ..... 4
ENG 101 College Writing .....  3
MT 105 Manufacturing Concepts ..... 4
MT 205 Applied Science ..... 6
MT 281 Statistical Controls ..... 3
COMM 221 or COMM 223 or COMM 225 or COMM 232 ..... 3
Total for Certificate ..... 31
DEGREE REQUIREMENTS-Choose One of the Following Concentrations:
Facilities Maintenance Self-Selected Concentration
Credits transferable from the Certificate ..... 31
ELEC 105L Digital Circuits .....  3
ELEC 118L Electromechanical Devices ..... 6
PC 212L Vacuum Systems .....  2
ACHR 133 Refrigerant Management .....  2
ACHR 134 Motors and Controls .....  2
ACHR 151 Air Conditioning .....  2
ACHR 152 Air Conditioning Control ..... 2
ACHR 214 Chilled Water Systems ..... 2
ELTR 212 Programmable Logic Controller ..... 4
ELTR 213L PLC Installation and Operation ..... 3
PLMB 102 Plumbing Systems Theory ..... 1
PLMB 102L Plumbing Systems Lab ..... 2
ENG 119 Technical Communications ..... 3
Humanities or Social Science Elective .....  3
Facilities Maintenance Technical Electives ..... 4
Total for Degree ..... 72
Facilities Maintenance Technical Electives
ACHR 212 Hot Water and Steam Generation ..... 2
ACHR 213 Controls I ..... 2
ACHR 215 Controls II ..... 2
CM 278 Mechanical/Electrical Blueprint Reading ..... 2
PLMB 105 Plumbing Blueprint Reading ..... 1
PLMB 106L Back-flow Prevention ..... 2
PLMB 173L Orbital Welding Systems .....  3
Semiconductor Manufacturing Self-Selected Concentration
Credits transferable from the Certificate ..... 31
ELEC 105L Digital Circuits ..... 4
ELEC 114L Semiconductor Devices ..... 6
ELEC 118L Electromechanical Devices ..... 6
PC 201 Electromechanical Systems .....  3
PC 211 Power RF .....  2
PC 212L Vacuum Systems ..... 2
SMT 201/201L Semiconductor Manufacturing Technology I Theory/Lab .....  3
SMT 211/211L Semiconductor Manufacturing Technology II Theory/Lab ..... 3
ENG 119 Technical Communications .....  3
CHEM 121/121L General Chemistry I ..... 4
MATH 121 or MATH 145 or MATH 150 or MATH 162 or MATH 180 ..... 3
Humanities or Social Science Elective ..... 3
Semiconductor Manufacturing Technical Elective ..... 3
Total for Degree ..... 73
Semiconductor Manufacturing Technical Electives
CP 278A C++ Programming I .....  3
ELEC 104 Electronics Mathematics ..... 4
ELEC 203L Introduction to Microprocessors ..... 6
ELEC 205L Analog Circuits ..... 6
ELEC 214L Troubleshooting Techniques ..... 3
ELEC 217 Upgrading and Repairing PC's ..... 3
ELEC 276L Soldering Techniques ( 7.5 weeks) ..... 2
ELEC 277L Advanced Soldering Techniques (7.5 weeks) ..... 2
ELEC 296 Topics ..... 1-8
ELEC 297 Special Problems ..... 2-8
ELEC 298 Internship ..... 3
ELEC 299 Cooperative Education ..... 3
MATT 102 Metals Blueprint Reading I ..... 2
MATT 105L Basic Supporting Machine Tools Principles ..... 2
MT 280 Introduction to Quality Assurance ..... 3
PHOT 101L Introduction to Photonics \& Photonics Safety .....
General Manufacturing Self-Selected Concentration
Credits transferable from the Certificate ..... 32
DDET 106L Basic CADD ..... 3
ELEC 105L Digital Circuits ..... 4
ELEC 118L Electromechanical Devices ..... 6
PC 203 PLC Theory and Applications (7.5 weeks) .....  2
PC 212L Vacuum Systems ..... 2
MATT 102 Metals Blueprint Reading I ..... 2
MATT 103L Basic Lathe Principles ..... 2
MATT 104L Basic Milling Machine Principles ..... 2
MATT 117L Intermediate Lathe Principles ..... 2
MATT 120L Intermediate Milling Machine Principles ..... 2
MATT 122L Computer Numerical Control I ..... 2
MATT 218L Computer Numerical Control II ..... 2
WELD 106L Introduction to SMAW ..... 2
ENG 119 Technical Communications ..... 3
MATH 120 or MATH 121 or MATH 145 or MATH 150 or MATH 162 or MATH 180 ..... 3
Humanities or Social Science Elective ..... 3
Total for Degree ..... 73

## MECHANICALTECHNOLOGY

## Trades \& Service Occupations Department

The Mechanical Technology associate of applied science degree is available with two concentrations: air conditioning and plumbing.
All courses must be passed with a minimum grade of C to qualify for graduation.
Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3716.

## AIR CONDITIONING, HEATING AND REFRIGERATION CONCENTRATION

A suggested schedule per term includes:
Term 1: ACHR 131, 132, 133, 134, 135, 136, 137, EPT 214A, 214B, 214C, MATH 119 or higher
Term 2: ACHR 151, 152, 153, 154, 155, 156, BA 105 or CP 175L or CSCI 101, ENG 101
Term 3: ACHR 210, 211, 212, 213, 214, 215, 216, COMM elective, humanities/social or behavioral science electiveTerm 4: PLMB 101, 101L, 102, 102L, 105, 106L, PHYS 102 or higher
Course No. Course Name Credit Hours
ACHR 131 Refrigeration Fundamentals ..... 2
ACHR 132 Basic Electricity ..... 2
ACHR 133 Refrigerant Management ..... 2
ACHR 134 Motors and Controls ..... 2
ACHR 135 Refrigeration Applications ..... 2
ACHR 136 Control Circuit Applications ..... 2
ACHR 137 Code and Safety Requirements I ..... 1
ACHR 151 Air Conditioning ..... 2
ACHR 152 Air Conditioning Controls ..... 2
ACHR 153 Gas Heating Systems ..... 2
ACHR 154 Gas Heating Control Systems ..... 2
ACHR 155 Commercial Refrigeration .....  2
ACHR 156 System Design .....  3
ACHR $210 \quad$ Pumps and Valves ..... 2
ACHR 211 Basic Hydronic Principles ..... 2
ACHR 212 Hot Water and Steam Generation Systems .....  2
ACHR 213 Controls I ..... 2
ACHR 214 Chilled Water Systems .....  2
ACHR 215 Controls II ..... 2
ACHR 216 Code and Safety Requirements II ..... 1
Additional Required Trades \& Service Occupations Courses
EPT 214A Occupational Safety I ..... 1
EPT 214B Occupational Safety II ..... 1
EPT 214C Occupational Safety III ..... 1
PLMB 101 Basic Plumbing Theory ..... 1
PLMB 101L Basic Plumbing Lab ..... 2
PLMB 102 Plumbing Systems Theory .....  1
PLMB 102L Plumbing Systems Lab ..... 2
PLMB 105 Plumbing Blueprint Reading I ..... 1
PLMB 106L Backflow Prevention ..... 2
Computer Requirement
BA 150 Introduction to Computer Processing
or CP 176 Introduction to Technology Computer Applications
or CSCI 101 Computer Literacy ..... 4
Required Arts \& Science Courses
Communications Elective (oral communications course) ..... 3
ENG 101 College Writing ..... 3
Humanities/Social or Behavioral Science Elective ..... 3
MATH 119 or higher ..... 3-4
PHYS 102 or higher ..... 3
Total ..... 70-71
PLUMBING CONCENTRATION
A suggested schedule per term includes:
Term 1: PLMB 101, 101L, 102, 102L, 103, 103L, 105, 106L, EPT 214A, 214B, 214C, MATH 119 or higherTerm 2: PLMB 111, 111L, 112L, 115, 116L, 173L, WELD 170, ENG 101
Term 3: ACHR 131, 132, 133, 134, 135, 136, BA 150 or CP 176 or CSCI 101, COMM elective
Term 4: ACHR 151, 152, 153, 154, humanities/social or behavioral science elective, PHYS 102 or higher
Course No. Course Name Credit Hours
PLMB 101 Basic Plumbing Theory ..... 1
PLMB 101L Basic Plumbing Lab ..... 2
PLMB 102 Plumbing Systems Theory ..... 1
PLMB 102L Plumbing Systems Lab ..... 2
PLMB 103 Heating Control Circuitry Theory ..... 1
PLMB 103L Heating Control Circuitry Lab ..... 2
PLMB 105 Plumbing Blueprint Reading I .....  1
PLMB 106L Backflow Prevention ..... 2
PLMB 111 Systems Layout/Maintenance Theory ..... 1
PLMB 111L Systems Layout Lab ..... 2
PLMB 112L Systems Maintenance Lab ..... 2
PLMB 115 Plumbing Blueprint Reading II ..... 2
PLMB 116L Building Maintenance, Heating and Cooling ..... 1
PLMB 173L Orbital Automated Welding Systems ..... 3
ACHR 131 Refrigeration Fundamentals ..... 2
ACHR 132 Basic Electricity ..... 2
ACHR 133 Refrigerant Management ..... 2
ACHR 134 Motors and Controls ..... 2
ACHR 135 Refrigeration Applications ..... 2
ACHR 136 Control Circuit Applications ..... 2
ACHR 151 Air Conditioning ..... 2
ACHR 152 Air Conditioning Controls .....  2
ACHR 153 Gas Heating Systems .....  2
ACHR 154 Gas Heating Control Systems ..... 2
Other Required Trades \& Service Occupations Courses
EPT 214A Occupational Safety I ..... 1
EPT 214B Occupational Safety II ..... 1
EPT 214C Occupational Safety III ..... 1
WELD 170 Welding Skills Improvement ..... 3
Computer Requirement
BA 150 Introduction to Computer Processing or CP 176 Introduction to Technology Computer Applications or CSCI 101 Computer Literacy ..... 4
Required Arts \& Sciences Courses
Communications Elective (oral communications course) .....  3
ENG 101 College Writing ..... 3
Humanities/Social or Behavioral Science Elective .....  3
MATH 119 or higher ..... 3-4
PHYS 102 or higher .....  3
Total ..... 68-69

## MEDICAL CODING

## Business Occupations Department

$T$he Medical Coding certificate program is designed to provide students the opportunity to prepare for a future in the health care industry, which is increasingly dependent on the documentation of medical procedures, diagnosis, and the level of complexity of the care delivered. Medical coding is at the heart of both healthcare reimbursement and clinical analysis.

Coders analyze medical records and assign codes to index diagnoses and procedures to support clinical care, to assist medical research in hospitals, physicians' offices, and other healthcare facilities; and to provide information for reimbursement purposes. Coding is the transformation of verbal descriptions of diseases, injuries, and procedures into numerical designations.

Individuals skilled in health information coding are employed as coders for hospitals, physicians' offices, peer review organizations, health maintenance organizations, ambulatory care facilities, skilled nursing facilities, or insurance companies. To earn a certificate, the required courses must be completed with a minimum grade of "C."
A suggested schedule per term for the Medical Coding certificate includes:
Term 1: BA 150, BIO 136, 139L, CR 132, HIT 115
Term 2: BA 121, HIT 120, 130, 200
Term 3: HIT 140, 160, 210, 230, 275
CERTIFICATE REQUIREMENTS
Course No. Course Name Credit Hours
BA 150 Introduction to Computers (or CP 176, or CSCI 101).................................................................. 4
BA 121 Business English ............................................................................................................................ 3
BIO 136 Human Anatomy and Physiology for Non-Majors ........................................................................ 3
BIO 139L Human Anatomy and Physiology for Non-Majors Laboratory ..................................................... 1
CR 132 Medical Terminology and Anatomy .............................................................................................. 3
HIT 115 Healthcare Delivery Systems .......................................................................................................... 2
HIT 120 Health Data Content and Structure ................................................................................................. 3
HIT 130 Principles of Diseases ...................................................................................................................... 3
HIT 140 Computers in Healthcare ................................................................................................................. 3
HIT 160 Pharmacology and Laboratory Procedures ..................................................................................... 3
HIT 200 Classification of Diseases I (ICD-CM) .......................................................................................... 3
HIT 210 CPT Coding ................................................................................................................................... 3
HIT 230 Reimbursement Methodologies ..................................................................................................... 3
HIT 275 Medical Coding Applications ........................................................................................................ 1
Total Required for Certificate .................................................................................................... 38

## MEDICAL LABORATORY TECHNICIAN

## Health Occupations Department

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

The program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences. Graduates are eligible to take both the American Society of Clinical Pathologists and the National Credentialing 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.

An agreement with the University of New Mexico Medical Laboratory Science (MLS) Program allows for the transfer of some or all credits earned at TVI toward the UNM MLS bachelor's degree. Students should contact the program director for specifics.

There is a uniform fee for MLT 111L or MLT 296/296A of $\$ 45$ for one lab coat. There is a uniform fee of $\$ 10.00$ for MLT 151C for a nametag, hospital parking permits and preventive lab tests in case of needle stick exposure. Each MLT laboratory course also has a $\$ 20$ supply fee.

Program information sessions for the Medical Laboratory Technician program are scheduled regularly; students should contact the Health Occupations Department for dates and times. These sessions include detailed information about the petitioning and selection process, program requirements, physical demands of the job and general information about laboratory medicine as a career. Anyone interested in the Medical Laboratory Technician program is strongly encouraged to attend one of these program information sessions. For more information on these sessions applicants may call 224-4161.

Prospective MLT students must declare MLT as their major, complete the prerequisites and submit a petition packet to the Health Occupations Department to be considered for the MLT classes beginning in the fall term. Students should call the Health Occupations office at 224-4114 to learn the dates of the summer petition period. Students are responsible for meeting the eligibility requirements. Once all requirements are fulfilled, students must petition for enrollment in the core MLT curriculum. The program begins in the fall term of each year.

Current certification in CPR, physical exam and hepatitis vaccinations are required prior to clinical experiences.
Students petitioning for enrollment must:
■ submit a completed TVI application declaring MLT as your major.
■ request that transcripts from all postsecondary schools previously attended be sent to TVI's Record Office. (allow three-four weeks)
■ have a cumulative GPA of 2.0 or higher
Prerequisites are:
■ high school diploma or equivalent
$\square$ English, math, reading and science at 100 level (MATH 100A prerequisite may be fulfilled by ACT, SAT or Accuplacer score or college coursework)
Job placement for MLT graduates was $100 \%$ in 1997, 1998, 1999, and 2000
There are two pathways available for students to enter the program in the fall term.
Pathway 1
Fall Term: BIO 123/124L, CHEM 111/112L, ENG 101, MATH 119, MLT 111/111L
Spring Term: BIO 136/139L, CHEM 212, MATH 145, MLT 151C
Summer Term: BIO 239/239L, HUM/SS Elective
Fall Term: MLT 114/114C (7.5 weeks), MLT 207/207L, MLT 211/211L (7.5 weeks)
Spring Term: MLT 206/206C, MLT 209/209L
Summer Term: MLT 205C

## Pathway 2 <br> Fall Term: MLT 111/111L, MLT 114/114C (7.5 weeks), MLT 207/207L, MLT 211/211L (7.5 weeks) <br> Spring Term: MLT 151C, MLT 206/206C, MLT 209/209L <br> Summer Term: HUM/SS Elective, MLT 205C

Advanced Placement: Applicants seeking advanced placement to the Medical Laboratory Technician program should contact the program director for more information.
Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-5021.

## REQUIRED ARTS \& SCIENCES COURSES

Course No. Course Name Credit Hours
BIO 123/124L Biology for Health Sciences/Lab(BIO 121/121L ${ }^{1}$ ) ..... 4
ENG $101 \quad$ College Writing (ENG 102) ${ }^{1}$ .....  3
CHEM 111/112L Introduction to Chemistry/Lab (CHEM 121/121L¹) ..... 4
CHEM 212 Organic Chemistry \& Biochemistry ..... 4
BIO136/139L Human Anatomy and Physiology for Non-Majors/Lab (BIO 237/247L and BIO 238/248L ${ }^{1}$ ) ..... 4
BIO 239/239L Microbiology/Lab ..... 4
MATH 145 Intro to Probability \& Statistics ..... 3
Humanities/Social Science Elective .....  3
Required Medical Laboratory Technician Courses
MLT 111 Introduction to Medical Technology ..... 2
MLT 111L Introduction to Medical Technology Laboratory .....  1
MLT 114 Immunology ..... 1
MLT 114C Clinical Immunology ..... 1
MLT 151C Clinical Experience Urinalysis/Phlebotomy .....  3
MLT 205C Clinical Experience ..... 12
MLT 206 MLT Microbiology .....  3
MLT 206C Clinical MLT Microbiology .....  3
MLT 207 Clinical Chemistry .....  5
MLT 207L Clinical Chemistry Laboratory .....  2
MLT 211 Clinical Immunohematology .....  2
MLT 211L Clinical Immunohematology Laboratory ..... 1
MLT 209 Clinical Hematology/Coagulation ..... 4
MLT 209L Clinical Hematology/Coagulation Laboratory ..... 2
Total ..... 71${ }^{1}$ These courses may be substituted for the required course.

## MEDICAL OFFICE ASSISTANT

Business OccupationsDepartment

The Medical Office Assistant offers entry-level office-related skills for students who prefer to begin a careerquickly in a medical office. Students acquire basic English, computer, word processing, telephone techniques,business interpersonal skills, and medical terminology. The courses in this program may be applied toward anOffice Administration certificate/associate of applied science degree.
Information about this program is available from the associate dean at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.
A suggested schedule per term for the Medical Office Assistant includes:
Term 1: AA 101, 102, BA 121, 131, 150
Term 2: AA 143, 170, 171, 174, CR 132, elective, CIS 130
Course No. Course Name Credit Hours
AA 101 Beginning Keyboarding .....  3
AA 102 Keyboard Applications ..... 3
AA 143 Word Processing ..... 3
AA $170 \quad$ Business Telephone Techniques (5 weeks) ..... 1
AA 171 Working with the Challenging Customer (5 weeks) ..... 1
AA 174 Computers in the Medical Office (5 weeks) ..... 1
BA 121 Business English ..... 3
BA 131 Business Interpersonal Skills ( 7.5 weeks) ..... 2
BA 150 Introduction to Computers (or CP 176, or CSCI 101) ..... 4
CIS 130 Microsoft Windows (5 weeks) [previously MMS 150] ..... 1
CR 132 Medical Terminology and Anatomy ..... 3
Approved Elective .....  3
Total Required for Certificate ..... 28
Approved Electives
AA 107 Intermediate Keyboard Skill-building ..... 2
AA 173 Time Management (5 weeks) ..... 1
AA 200 Advanced Word Processing .....  3
AA 270 Medical Transcription ..... 3
AA 297 Special Problems ..... Variable
AA 298 Internship ..... 4
AA 299 Cooperative Education ..... 4
BA 122 Business Writing .....  3
BA 252 Customer Relations .....  3
CIS 143 MS Outlook (5 weeks) ..... 1
CIS 150 Excel Fundamentals (5 weeks) [previously MMS 158] ..... 1
CIS 155 Access Fundamentals (5 weeks) [previously MMS 159] ..... 1The Customer Service Representative 90-hour training course offered through the TVI Workforce Training Center cansubstitute for AA 170, 171, and 173.

## METALS TECHNOLOGY

## Trades \& Service Occupations Department

The Metals Technology associate of applied science degree is available with two concentrations: Machine Tool Technology and Welding. The program prepares individuals for entry-level positions in the metal working industry. Personal safety is stressed.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3718.

## MACHINE TOOL TECHNOLOGY CONCENTRATION

A suggested schedule per term includes:
Term 1: MATT 101, 102, 103L, 104L, 105L, 108L, MATH 119 or higher, BA 105 or CP 176 or CSCI 101
Term 2: MATT 111, 113, 117L, 120L, 121L, 122L, ENG 101, COMM 130 or higher
Term 3: MATT 202, 208L, 214, 216L, 217L, WELD 170, ENG 102 or higher
Term 4: MATT 171, 218L, Business Occupations or Technologies elective, PHYS 102 or higher, humanitiessocial or behavioral science elective
Course No. Course Name Credit Hours
MATT 101 Metals Math I ..... 2
MATT 102 Metals Blueprint Reading I ..... 2
MATT 103L Basic Lathe Principles ..... 2
MATT 104L Basic Milling Machine Principles ..... 2
MATT 105L Basic Supporting Machine Tool Principles .....  2
MATT 108L Basic Measurement and Inspection .....  2
MATT 111 Metals Math II .....  2
MATT 113 Metals Blueprint Reading II ..... 2
MATT 117L Intermediate Lathe Principles ..... 2
MATT 120L Intermediate Milling Machine Principles ..... 2
MATT 121L Intermediate Supporting Machine Tool Principles ..... 2
MATT 122L Computer Numerical Control I ..... 2
MATT 202 Metallurgy ..... 2
MATT 208L Advanced Lathe Principles ..... 2
MATT 214 Machine Tool Technology CADD ..... 2
MATT 216L Advanced Milling Machine Principles ..... 2
MATT 217L Advanced Supporting Machine Tool Principles .....  2
MATT 218L Computer Numerical Control II ..... 2
WELD 170 Welding Skills ..... 3
WELD 171 Advanced Welding Skills ..... 3
Business Occupations and/or Technologies Elective ..... 3
Computer Requirement
BA 150 Introduction to Computer Processing
or CP 176 Introduction to Technology Computer Applications
or CSCI 101 Computer Literacy ..... 4
Required Arts \& Sciences Courses
COMM 130 or higher .....  3
ENG 101 College Writing ..... 3
ENG 102 or higher ..... 3
Humanities/Social or Behavioral Science Elective 3
MATH 119 or higher. ..... 3-4
PHYS 102 or higher .....  3
Total ..... 67-68
WELDING CONCENTRATION
A suggested schedule per term includes:
Term 1: MATT 101, 102, WELD 104L, 105L, 106L, 107L, 108, MATH 119 or higherTerm 2: MATT 111, 113, WELD 114L, 115L, 116L, 117L, ENG 101, BA 150 or CP 176 or CSCI 101Term 3: MATT 173, WELD 202, 205L, 206L, 207L, 208L, COMM 130 or higher
Term 4: MATT 174, Business Occupations or Technologies elective, PHYS 102 or higher, humanities/social orbehavioral science elective
Course No. Course Name Credit Hours
MATT 101 Metals Math I ..... 2
MATT 102 Metals Blueprint Reading I ..... 2
WELD 104L Oxyacetylene Welding and Cutting ..... 2
WELD 105L Oxyacetylene Brazing/Soldering and Fabrication ..... 2
WELD 106L Introduction to SMAW ..... 2
WELD 107L Introduction to SMAW Qualifications and Fabrication ..... 2
WELD 108 Introduction to Metallurgy .....  2
MATT 111 Metals Math II ..... 2
MATT 113 Metals Blueprint Reading ..... 2
WELD 114L Advanced SMAW ..... 2
WELD 115L Introduction to GMAW and Fabrication ..... 2
WELD 116L Introduction to GTAW and Fabrication .....  2
WELD 117L Qualifications for SMAW and GMAW .....  2
WELD 202 Advanced Blueprint Reading .....  2
WELD 205L Pipe Layout and Welding .....  2
WELD 206L Advanced GMAW and Fabrication .....  2
WELD 207L Advanced GTAW and Fabrication .....  2
WELD 208L Qualifications for GTAW ..... 2
MATT 173 Machine Tool Technology Skills ..... 3
MATT 174 Advanced Machine Tool Technology Skills .....  3
Business Occupations and/or Technologies Elective ..... 3
Computer Requirement
BA 150 Introduction to Computer Processing
or CP 176 Introduction to Technology Computer Applications
or CSCI 101 Computer Literacy ..... 4
Required Arts \& Sciences Courses
COMM 130 or higher ..... 3
ENG 101 College Writing ..... 3
Humanities/Social or Behavioral Science Elective ..... 3
MATH 119 or higher ..... 3-4
PHYS 102 or higher .....  3
Total ..... 64-65
MICROSOFT CERTIFIED SYSTEMS ENGINEER (MCSE) CERTIFICATION PREPARATION

## Business Occupations Department

The Business Occupations Department offers a Verification of Completion upon completion of a cluster of courses from 6 to 28 credit hours that offer skills and competencies in a specific career area. These course clusters may be (1) part of a pathway to a business certificate or an associate of applied science degree or (2) a combination of courses that provide skills and competencies from several business certificates or associate of applied science degrees.
A Verification of Completion provides opportunities for students to gain skills and competencies needed for emerging business strategies and is awarded by the Business Occupations Department. Application for a Verification of Completion may be made with the department upon completion of the course cluster.
Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits.
Information about these courses is available from the Business Occupations Department at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.
Course No. Course Name Credit Hours
CIS 135 Windows 2000 Professional (5 weeks) [previously MMS 162] ..... 1
CIS 136 Intermediate Windows 2000 Professional (5 weeks) ..... 1
CIS 282 Windows 2000 Certification Prep (5 weeks) ..... 1
CIS 243 Windows Server Management [previously MMS 242] ..... 3
CIS 245 Windows Server Data Management [previously MMS 244] ..... 3
CIS 246 Manage Windows Directory Services .....  3
CIS 247 Designing Windows Server Directory Services ..... 3
CIS 248 Designing Windows Server Network ..... 3
CIS 249 Windows Server Network Security ..... 3
CIS elective ..... 3
Total ..... 24

## MICROSOFT OFFICE USER SPECIALIST (MOUS) CERTIFICATION PREPARATION

Business Occupations Department

T hese MOUS certification preparation courses can lead to MOUS certification for each separate software package. To be MOUS certified, you must pass the Microsoft MOUS exam for each individual topic. Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits. Information about these courses is available from the Business Occupations Department at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.
WORD MOUS
Course No. Course Name Credit Hours
CIS 123 Microsoft Word for Windows [previously MMS 135] .....  3
CIS 220 Word Certification Prep (5 weeks) ..... 1
Total ..... 4
EXCEL MOUS
Course No. Course Name Credit Hours
CIS 150 Excel Fundamentals (5 weeks) [previously MMS 158] ..... 1
and CIS 151 Intermediate Excel (5 weeks) [previously MMS 166] ..... 1
and CIS 152 Advanced Excel (5 weeks) [previously MMS ..... 1
and CIS 224 Excel Certification Prep ..... 1
or
ACCT 254 Electronic Spreadsheets ..... 3
and CIS 224 Excel Certification Prep ..... 1
Total ..... 3-4
POWERPOINT MOUS
Course No. Course Name ..... Credit Hours
CIS 142 Presentation Graphics [previously MMS 257] ..... 3
CIS 222 PowerPoint Certification Prep (5 weeks) ..... 1
Total ..... 4
ACCESS MOUS
Credit Hours
CIS 155 Access Fundamentals (5 weeks) [previously MMS 159] ..... 1
CIS 156 Intermediate Access (5 weeks) [previously MMS 168] ..... 1
CIS 157 Advanced Access (5 weeks) [previously MMS 169] ..... 1
CIS 226 Access Certification Prep (5 weeks) ..... 1
Total ..... 4

## MICROSOFT SOFTWARE SUPPORT

## Business Occupations Department

The Business Occupations Department offers a Verification of Completion upon completion of a cluster of courses from 6 to 28 credit hours that offer skills and competencies in a specific career area. These course clusters may be (1) part of a pathway to a business certificate or an associate of applied science degree or (2) a combination of courses that provide skills and competencies from several business certificates or associate of applied science degrees.

A Verification of Completion provides opportunities for students to gain skills and competencies needed for emerging business strategies and is awarded by the Business Occupations Department. Application for a Verification of Completion may be made with the department upon completion of the course cluster.

Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits.
Information about these courses is available from the Business Occupations Department at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.
BA 150 Introduction to Computer ..... 4
CIS 123 Microsoft Word for Windows [previously MMS 135] ..... 3
CIS 130 Microsoft Windows (5 weeks) [previously MMS 150] ..... 1
CIS 131 Intermediate Windows (5 weeks) [previously MMS 164] ..... 1
CIS 135 Windows 2000 Professional (5 weeks) [previously MMS 162] ..... 1
CIS 142 Presentation Graphics [previously MMS 257] .....  3
CIS 143 MS Outlook (5 weeks) ..... 1
CIS 150 Excel Fundamentals (5 weeks) [previously MMS 158] ..... 1
CIS 151 Intermediate Excel (5 weeks) [previously MMS 166] ..... 1
CIS 152 Advanced Excel (5 weeks) [previously MMS 167] ..... 1
CIS 155 Access Fundamentals (5 weeks) [previously MMS 159] ..... 1
CIS 156 Intermediate Access (5 weeks) [previously MMS 168] ..... 1
CIS 157 Advanced Access (5 weeks) [previously MMS 169] ..... 1
CIS 220 Word Certification Prep ( 5 weeks) .....  1
CIS 222 PowerPoint Certification Prep (5 weeks) .....  1
CIS 224 Excel Certification Prep (5 weeks) ..... 1
CIS 226 Access Certification Prep (5 weeks) ..... 1
CIS 254 Business Operations Management [previously MMS 251]. ..... 3
Total ..... 27

## MULTIMEDIA DEVELOPMENT

## Business Occupations Department

The Business Occupations Department offers a Verification of Completion upon completion of a cluster of courses from 6 to 28 credit hours that offer skills and competencies in a specific career area. These course clusters may be (1) part of a pathway to a business certificate or an associate of applied science degree or (2) a combination of courses that provide skills and competencies from several business certificates or associate of applied science degrees.

A Verification of Completion provides opportunities for students to gain skills and competencies needed for emerging business strategies and is awarded by the Business Occupations Department. Application for a Verification of Completion may be made with the department upon completion of the course cluster.

Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits. Information about these courses is available from the Business Occupations Department at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.
Course No. Course Name Credit Hours
CIS 164 Hypertext Markup Language (HTML) (5 weeks) [previously MMS 171] .................................... 1
CIS 170 Introduction to Multimedia [previously MMS 170] ....................................................................... 3
CIS 271 Macromedia Director [previously MMS 271] ................................................................................ 3
CIS 273 Macromedia Flash .......................................................................................................................... 3
CIS 275 Adobe Premiere [previously MMS 272] ........................................................................................ 3
CIS 274 Computer Illustration ...................................................................................................................... 3
Total ............................................................................................................................................... 16

## NETWORKING TECHNOLOGY

## Technologies Department

n this program students acquire the skills to administer and support computer systems and networks. Graduates are prepared for entry-level jobs in government, business and industry. The program is designed for a person who is responsible for the day-to-day operation of a network. Network or systems administrators typically perform tasks such as system installation, configuration and maintenance; administering user accounts; backing up servers; loading applications; and maintaining security. Other job responsibilities include minor network troubleshooting and network performance; students will attain skills to diagnose, troubleshoot and resolve network problems in a real-time environment. Early courses emphasize written and verbal communications, business knowledge and basic
computer skills. Later courses are arranged into the following certificate options: Cisco CCNA Prep, Linux Prep, and Microsoft Certification Prep.

To enter the Networking Technology program, the student must meet the prerequisites of MATH 100 or equivalent, RDG 099 or equivalent and CP 176 or equivalent.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at (505) 224-3340.

## CERTIFICATE AND DEGREE REQUIREMENTS

| Course No. | Course Name | Credit Hours |
| :---: | :---: | :---: |
| CP 103 | Mathematics for Computer Programmers | 3 |
| CP 128 | Personal Computer Operating Systems (A+Certification Prep). | 3 |
| CP 182 | Networking Topologies (Network+ Certification Prep) | 3 |
| CP 183 | Network Operating System (Network+ Certification Prep) | 3 |
| CP 213 | Database Management (MS Access) | 3 |
| CP 274L | Introduction to UNIX and WANs | 3 |
| CP 285 | Troubleshooting Networks | 3 |
| ELEC 217 | Upgrading and Repairing PCs (A+ Certification Prep) | .. 3 |
| ENG 101 | College Writing | 3 |
| ENG 119 | Technical Communications | 3 |
| or Communications (COM Subtotal... |  | 3 |
|  |  | ... 30 |

Select One of the Following Three Certificate Options (9 Credits) CCNA Prep
CP 205 Basic Router Configuration ..... 3
CP 206 Local Area Network Management ..... 3
CP 207 Wide Area Network Management ..... 3
Linux Prep
CP 231 Networking and Security Administration. ..... 3
CP 232 Application Installation and Troubleshooting ..... 3
CP 275 Advanced UNIX and WAN Administration ..... 3
Microsoft Certification Prep
CP 286 Windows 2000 Server Administration ..... 3
CP 288 Windows Network Infrastructure ..... 3
CP 289 Windows Directory Services ..... 3
Total Credits for Certificate ..... 39
Additional Associate of Applied Science Degree Requirements
MATH 120 Intermediate Algebra ..... 4
or MATH 121 College Algebra ..... 3
or MATH 150 Advanced Algebra ..... 4
MATH 145 Introduction to Probability and Statistics ..... 3
or MATH 245 Probability and Statistics ..... 3
Social and Behavioral Sciences or Humanities Elective ..... 3
Additional 18 Credits Selected from Courses Below:
CP 105 Fundamentals of Computer Programming ..... 6
CP 220 Advanced Database Concepts .....  3
CP 221 Oracle: SQL and PL/SQL I. ..... 3
CP 235 JAVA Programming I. ..... 3
CP 278A C++ Programming I ..... 3
CP 278B C++ Programming II ..... 3
CP 281L C++ Programming III (Advanced OOP) ..... 3
CP 296 Topics ..... 1-6
CP 297 Special Problems ..... 1-6
CP 298 Internship .....  3
CP 299 Cooperative Education .....  3
CIS 243 Windows NT Server Systems Management ..... 3
CIS 244 Windows NT TCP/IP Communications ..... 3
CIS 245 Windows NT Data Management ..... 3
ELEC 105L Digital Circuits ..... 4
Any CP Courses From the Tracks Above Not Already Used ..... 3-18
Total Credits for Degree ..... 66-67

## NURSING HOME/HOME HEALTH ATTENDANT

## Health Occupations Department

This 150-hour special course is designed to teach basic nursing skills to individuals who wish to work or are working in a nursing home as a nursing aide or in patients' homes as a home health attendant. Good communication skills and the desire as well as the ability to care for others are necessary for this program. Graduates are eligible to take the state certification exam to become certified nursing assistants (CNA).

The theory portion includes basic nursing skills, geriatrics, simple anatomy and physiology, rehabilitation, residents' rights and housekeeping chores. Lab experiences focus on personal care, vital signs and mobility skills. The clinical portion applies these skills in a clinical setting. The student will be required to have a physical exam, PPD and current immunizations (including tetanus, rubella and rubeola, and hepatitis B) in order to go to clinical.

The $\$ 24$ uniform fee covers the cost of required apron, nametag, health test, transfer belt, CPR and first aid certification, 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.

Twenty-four persons are enrolled in each course on a first come, first served basis. Courses are offered twice every term. Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-4121.
Course No. Course Name Credit Hours

NAHA 102L Nursing Home/Home Health Attendant Theory/Lab ...................................................................... 5
NAHA 102C Nursing Home/Home Health Attendant Clinical ............................................................................. 1
Total .................................................................................................................................................. 6

## NURSING PROGRAMS

## Health Occupations Department

Nursing is an exciting and rewarding field that requires highly ethical individuals who have the ability to problem-solve and think critically in a rapidly changing environment. Nursing is a science as well as an art because it is essential that the nurse combine scientific knowledge and technical skills with a compassionate and creative heart. To be successful the individual nurse must have the physical, mental, emotional, and ethical ability to meet the needs of patients in a safe and effective manner. Students with concerns about disabilities that may interfere with their ability to complete either nursing program are encouraged to discuss these concerns with the director of the nursing programs before they begin courses.

There are two programs available: associate degree nursing (leading to eligibility for licensure as a Registered Nurse) and practical nursing (leading to eligibility for licensure as an Licensed Practical Nurse). Advanced placement is available. Both programs are approved by the New Mexico State Board of Nursing and accredited by the National League for Nursing Accreditation Commission (NLNAC). For further information on accreditation for either program, the NLNAC may be contacted at (212) 989-9393, extension 153 or 350 Hudson Street, New York, New York 10014.

Licensure: It is essential that prospective students be informed that the New Mexico State Board of Nursing (NMSBON) 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 (from NMAC 16, 12. 1, 2, 3, 4, 5; 61-3-28):

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;
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. has willfully or repeatedly violated any provisions of the Nursing Practice Act;
8. was licensed to practice nursing in any jurisdiction, territory or possession of the United States or another country and was the subject of disciplinary action similar to acts described in this subsection.
Information sessions: Information sessions are scheduled regularly for each program. For dates and times applicants may call the Health Occupations Department information line at 224-4161. These sessions review levels of nursing, the petition process for enrollment, program requirements and curriculum changes. Individuals interested in either nursing program must attend one of these sessions and continuing students are encouraged to attend at least one session a year. Students may declare their major in practical nursing or associate degree nursing at any time. However, when ready to enter clinical courses, students must petition for selection.

Petitioning: Petitions for selection to the clinical courses are accepted early in the spring term for the practical nurse program and early in the summer and fall terms for the associate degree nursing program. Applicants may contact the Health Occupations Department for the dates and times when petitions are accepted. To be eligible to petition a student must complete the prerequisites (see below) and provide proof of completing all required liberal arts courses with a C or better. Anatomy, physiology and microbiology courses must be taken within five years from the date of application to the nursing program. Note: Anatomy and physiology courses have general biology (BIO $123 / 124 \mathrm{~L}$ ) and chemistry (CHEM 111/112L) prerequisites. These prerequisites may be met by appropriate high school courses. Permission to enroll is provided by the biology faculty.

Once all criteria are fulfilled students must petition for enrollment in the first clinical course in either nursing program. Should there be more petitioners than available spaces, the date of admission to TVI will be used as the final selection criterion. Should there be more than one person with the same date of admission competing for the same slot, the date of completion of all required liberal arts courses will be used as the final selection criterion. The date of completion will be the last day of the term in which the course was successfully completed.

Because of the high demand for these programs it may take more than one year after petitioning to begin the nursing core coursework.

Requirements for entering clinical courses: 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 strongly advisable that students 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.
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 an equipment fee which includes the required uniforms, stethoscope, scissors, hospital parking permits, transfer belts, safety goggles, pen light, hemostat, identification tags and preventive lab tests in case of needle stick exposure and standardized testing. Students are responsible for the expenses of the physical examination, a watch with a second hand, uniform shoes, graduation pin, textbooks and licensing exam fees. In addition, most courses have fees for standardized testing.

Graduation requirements: A minimum grade of C must be earned in all required courses to continue in either nursing program and to graduate. In addition, competency in dosage calculations, as tested by clinical calculation exams, must be maintained for progress in the program.

Prerequisites: P.N. and A.D.N. (must be completed in order to petition):

- high school graduate or equivalent
- minimum score of $85 \%$ on Nursing/MLT Basic Math test within 12 months prior to petitioning.

■ cumulative TVI GPA 2.0 or higher
Information about the nursing programs is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-4141.

## PRACTICAL NURSING

his certificate program prepares practical nurses to care for patients in a variety of health care facilities under the
supervision of registered nurses and physicians. Graduates are eligible to take the licensing examination for supervision of registered nurses and physicians. Graduates 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. Petitioning and prerequisites are covered above. The program begins in the summer term.

The Presbyterian Healthcare Services (PHS) School of Practical Nursing was started in 1956 at Presbyterian Hospital. In 1965 TVI assumed administrative responsibility for the school. Presbyterian continues to support the school by providing clinical facilities for patient care experiences.

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. For
additional information applicants may contact the director of the nursing programs at 224-4141. Official transcripts for previous vocational/college course work must be submitted to the TVI Records Office. Nursing courses are only valid for three years from the date of application to TVI. Advanced placement by challenge exam is offered to students who have either completed a formal course of study in a nursing-related field within a postsecondary institution (e.g. military corps member) or performed basic nursing skills during employment in an in-patient setting within the last three years.

There are uniform fees which includes the required uniforms, stethoscope, scissors, hospital parking permits, transfer belts, safety goggles, pen light, hemostat, identification tags and preventive lab tests in case of needle stick exposure and standardized testing.

## Required Arts \& Sciences Courses

Course No. Course Name Credit Hours

BIO 237/247L Human Anatomy and Physiology I/Lab ........................................................................................ 4
BIO 238/248L Human Anatomy and Physiology II/Lab ........................................................................................ 4
ENG 101 College Writing ............................................................................................................................... 3
${ }^{1}$ NUTR 244 Human Nutrition ............................................................................................................................ 3
${ }^{2}$ PSY 105 General Psychology ........................................................................................................................ 3
Required Practical Nurse Courses
NURS 115 Dosage Calculations ...................................................................................................................... 1
PN 126C Foundations of Practical Nursing ................................................................................................... 9
PN 130C Family Nursing Across The Lifespan .......................................................................................... 10
${ }^{3}$ PN 131 Pharmacology ................................................................................................................................... 3
PN 135C Nursing Care of Adult Clients with Complex Problems ............................................................... 11
PN 129 Trends and Issues in Practical Nursing ........................................................................................... 1
Total ................................................................................................................................................ 56
${ }^{1}$ NUTR 125 may be substituted. ${ }^{2}$ PSY 220 may be substituted. ${ }^{3}$ NURS 231 may be substituted.

## NURSING

The associate degree 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 healthcare settings where they provide and manage client care, teach and promote communication while participating as members of the nursing profession. Requirements and prerequisites are covered above. Graduates are eligible to take the licensing exam given by the New Mexico State Board of Nursing to become registered nurses. The programs begins in the fall and spring terms.

Advanced Placement: To apply for advanced standing in the associate degree nursing program, individuals must meet the enrollment requirements for the program as described above. Official transcripts of all vocational/college courses must be sent to TVI. All advanced placement students must take NURS 202C prior to enrollment in the Nursing courses. Advanced placement may be granted in three ways:

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 postsecondary 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 challenge must make an appointment with the director of the nursing program. The process includes theory and practical exams.
Students should check with the department for courses available for challenge. There is a fee for each challenge exam.
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. 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 transcripts of previous education in a vocational school or college

- provide proof of current licensure as an LPN.
- pass the Nursing Mobility Profile I examinations as indicated by the program; and
$\square$ provide proof of completion of all required liberal arts 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). Students must also have completed NURS 115 and NURS 202C. Priority is given to those who have also completed NURS 231.

Students are responsible for meeting the prerequisites and notifying the nursing director of their readiness to enter advanced placement four months prior to the term when they want to enter. Students are notified by mail when they are selected to enter the clinical courses. After selection, students must meet the same requirements for entering clinical courses described above.

Students pay uniform fees for hospital parking permits, 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, safety goggles, stethoscope, bandage scissors, graduation pin and licensing fees.

## Required Arts \& Sciences Courses

Course No. Course Name Credit Hours
BIO237/247L Anatomy and Physiology I/Lab ...................................................................................................... 4
BIO 238/248L Anatomy and Physiology II/Lab ..................................................................................................... 4
BIO 239/239L Microbiology for Health Sciences/Lab ........................................................................................... 4
ENG 101 College Writing .............................................................................................................................. 3
${ }^{1}$ NUTR 244 Human Nutrition ............................................................................................................................... 3
PHIL 245M Biomedical Ethics ........................................................................................................................... 3
PSY 105 General Psychology ....................................................................................................................... 3
PSY 220 Developmental Psychology ........................................................................................................... 3
${ }^{2}$ Elective .......................................................................................................................................... 3
Required Nursing Courses
NURS 115 Dosage Calculations ....................................................................................................................... 1
NURS 126C Foundations of Nursing .................................................................................................................. 9
NURS 127C Family Nursing I ............................................................................................................................. 9
NURS 226C Family Nursing II ........................................................................................................................ 10
NURS 227 Manager of Care ............................................................................................................................ 1
NURS 231 Pharmacology in Nursing ............................................................................................................... 3
NURS 247C Complex Health Problems in the Family ........................................................................................ 9
Total ................................................................................................................................................ 72
${ }^{1}$ NUTR 125 may be substituted.
${ }^{2}$ May be outside of Arts \& Sciences with department approval; may not be a lab/science course

## NURSING ASSISTANT

## Health Occupations Department

This certificate program provides training in basic 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. Graduates are eligible to take the state certification exam. The program begins in the fall and spring terms. Good communication skills and the desire as well as 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 student will be required to have a physical exam, PPD and current immunizations (including tetanus, rubella and rubeola, and hepatitis B) to go to clinical.

The 15 -week program includes 360 instructional hours. Nine weeks are spent in the classroom and laboratory, followed by six weeks of extensive supervised clinical experiences. A student attends class an average of 24 hours per week throughout the program.

Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits.
A $\$ 42$ uniform fee covers the cost of the required apron, name tag, stethoscope, health test, CNA pin, hospital parking permits, 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.

Prerequisites are:

- MATH 099 or equivalent

■ RDG 099 or equivalent

- ENG 099 or equivalent
NA 101 Nursing Assistant Theory ..... 4
NA 110L Nursing Assistant Lab ..... 1
NA 121C Nursing Assistant Clinical Experiences ..... 3
NA 131 Health Communications ..... 3
NA 161 Nursing Assistant Issues ..... 2
NA 171 Nursing Assistant-Applications ..... 3
Total ..... 16


## OFFICE ADMINISTRATION (Formerly Administrative Assistant)

## Business Occupations Department

$T$he Office Administration (OA) program provides opportunities for individuals to develop marketable skills in the areas of interpersonal relations, office technology, office accounting, written communication, and computer applications to meet the demands and expanded responsibilities of today's administrative workforce. The administrative profession offers a bright career that is challenging and rewarding. The program provides graduates with the foundation to move into positions with more responsibility and higher wages. Many administrative professionals are taking over responsibilities once held by middle managers.

Employment growth is expected in the administrative profession. According to the U.S. Department of Labor, 400,000 new secretarial jobs will be added to the workforce by the year 2005.

Individuals who have already attained a Certified Professional Secretary (CPS) rating may receive credit hours toward the Office Administration associate of applied science degree. Students may contact the associate dean for more information about advanced placement.

Information about this program is available from the associate dean at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.

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

## Legal Concentration Certificate

Term 1: AA 101, 102, BA 113 or 133, BA 121, 150
Term 2: AA 107, 143, ACCT 111, BA 122, CR 240
Term 3: AA 200, 205, CIS 150, PL 231B, 231C, COMM elective, A \&S elective
Term 4: AA 231, 260

## Additional Degree Requirements

Term 4: AA 112, BA 131, ENG 101
Term 5: approved legal elective, Biological and Physical Science elective or MATH 119 or higher (except MATH 215 and 296), Social Science/Humanities elective

## Office Technology Concentration Certificate

Term 1: AA 101, 102, BA 113 or 133, BA 121, 150
Term 2: AA 107, 143, ACCT 111, BA 122, CIS 130, 140, 160
Term 3: AA 200, 205, 231, CIS 150, 151, 155, A\&S elective
Term 4: AA 260, COMM elective

## Additional Degree Requirements

Term 4: AA 112, approved office technology elective, BA 131
Term 5: ENG 101, Biological and Physical Science elective or MATH 119 or higher (except MATH 215 and 296), Social Science/Humanities elective

OFFICE ADMINISTRATION CORE

| Course No. Course Name Credit Hours |
| :--- | :--- | :--- |
| AA 101 |

AA 101 Beginning Keyboarding.................................................................................................................. 3
AA 102 Keyboard Applications ................................................................................................................... 3
AA 107 Intermediate Keyboard Skill-building ............................................................................................ 2
AA 143 Word Processing ............................................................................................................................ 3
AA 205 Advanced Keyboard Skill-building ................................................................................................ 2
AA 260 Business Procedures ........................................................................................................................ 3
ACCT 111 Business Math .................................................................................................................................... 3
BA 113 Introduction to Business
or BA 133 Principles of Management ..... 3
BA 121 Business English ..... 3
BA 122 Business Writing ..... 3
COMM Elective ..... 3
BA 150 Introduction to Computers (or CP 176, or CSCI 101) ..... 4
Arts \& Sciences Elective (except Military Studies and CSCI 101) ..... 3
Subtotal ..... 38
CONCENTRATIONSFOR CERTIFICATE OR DEGREE (OneConcentration Required)
Legal Concentration
AA 200 Advanced Word Processing ..... 3
AA 231 Business English Applications ..... 3
CIS 150 Excel Fundamentals (5 weeks) [previously MMS 158] ..... 1
CR 240 Legal Terminology ..... 3
PL 231B Computer Applications in Law Practice ..... 1
PL 231C Specialized Legal Software ..... 1
Total Required for Certificate ..... 50
Approved Electives for Legal Concentration
AA 296 Topics Course ..... 1-3
AA 297 Special Problems ..... Variable
AA 298 Internship ..... 4
AA 299 Cooperative Education ..... 4
BA 211 Business Law ..... 3
CIS 143 MS Outlook (5 weeks) ..... 1
JUD 101 Introduction to Judicial Studies ..... 3
PL 101 Introduction to Paralegal Studies [previously LAS 101] ..... 3
SSKL 211 Employment Skills-General (15 hours) ..... 1
Office Technology Concentration
AA 200 Advanced Word Processing ..... 3
AA 231 Business English Applications ..... 3
CIS 130 Microsoft Window (5 weeks) [previously MMS 150] ..... 1
CIS 140 PowerPoint Fundamentals (5 weeks) [previously MMS 157] ..... 1
CIS 150 Excel Fundamentals (5 weeks) [previously MMS 158] ..... 1
CIS 151 Intermediate Excel (5 weeks) [previously MMS 166] ..... 1
CIS 155 Access Fundamentals (5 weeks) [previously MMS 159] ..... 1
CIS 160 Introduction to Internet (5 weeks) [previously MMS 160] ..... 1
Total Required for Certificate ..... 50
Approved Electives for Office Technology
AA 170 Business Telephone Techniques ( 5 weeks) ..... 1
AA 171 Working with the Challenging Customer (5 weeks) ..... 1
AA 173 Time Management (5 weeks) ..... 1
AA 250 Machine Transcription .....  3
AA 296 Topics Course ..... 1-3
AA 297 Special Problems ..... Variable
AA 298 Internship ..... 4
AA 299 Cooperative Education ..... 4
ACCT $157 \quad$ Beginning Quickbooks (5 weeks) [previously BA 157] .....  1
BA 211 Business Law ..... 3
CIS Computer Courses (except CIS 120, 123, 142) ..... 3
DE 101 Data Entry Skill-building (7.5 weeks) ..... 2
SSKL 211 Employment Skills-General (15 hours) .....  1

## Additional Degree Requirements

AA 112 Office Accounting Procedures ........................................................................................................ 4
BA 131 Business Interpersonal Skills (7.5 weeks) ..................................................................................... 2
ENG 101 College Writing ............................................................................................................................ 3
MATH 119 Methods of Problem Solving or higher (except MATH 215 and 296) or Biological and PhysicalScience Elective 3-4
Social Science/Humanities Elective ............................................................................................... 3
Approved Elective for Concentration ............................................................................................. 3
Total Required for Degree .................................................................................................... 68-69

## OFFICE ASSISTANT

## Business Occupations Department

0ffice Assistant is a two-term certificate program that offers entry-level office-related skills for students who prefer to begin a career quickly. Students acquire basic English, computer, word processing, and business interpersonal skills. The courses in this program may be applied toward an Office Administration certificate/ associate of applied science degree.
Information about this program is available from the associate dean at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.
A suggested schedule per term for the Office Assistant certificate includes:
Term 1: AA 101, 102, BA 121, 131, 150
Term 2: AA 143, 170, 171, ACCT 111, CIS 130, 160, elective

## CERTIFICATE REQUIREMENTS

Course No.
Course Name
Credit Hours
AA 101 Beginning Keyboarding................................................................................................................. 3
AA 102 Keyboard Applications ................................................................................................................... 3
AA 143 Word Processing ............................................................................................................................. 3
AA 170 Business Telephone Techniques (5 weeks) .................................................................................... 1
AA 171 Working with the Challenging Customer (5 weeks) ...................................................................... 1
ACCT 111 Business Math .................................................................................................................................... 3
BA 121 Business English ............................................................................................................................ 3
BA 131 Business Interpersonal Skills (7.5 weeks) ....................................................................................... 2
BA 150 Introduction to Computers (or CP 176, or CSCI 101)..................................................................... 4
CIS 130 Microsoft Windows (5 weeks) [previously MMS 150] .................................................................. 1
CIS 160 Introduction to Internet (5 weeks) [previously MMS 160] ............................................................. 1
Approved Electives ........................................................................................................................ 3
Total Required for Certificate ..................................................................................................... 28
Approved Electives
AA 107 Intermediate Keyboard Skill-building ............................................................................................. 2
AA 173 Time Management (5 weeks) ......................................................................................................... 1
AA 200 Advanced Word Processing.............................................................................................................. 3
AA 296 Topics Course ............................................................................................................................. 1-3
AA 297 Special Problems .................................................................................................................. Variable
AA 298 Internship ....................................................................................................................................... 4
AA 299 Cooperative Education ................................................................................................................... 4
BA 122 Business Writing ............................................................................................................................. 3
BA 252 Customer Relations ........................................................................................................................... 3
CIS 140 PowerPoint Fundamentals (5 weeks) [previously MMS 157] ........................................................ 1
CIS 143 MS Outlook (5 weeks) .................................................................................................................... 1
CIS 150 Excel Fundamentals (5 weeks) [previously MMS 158] ................................................................. 1
CIS 151 Intermediate Excel (5 weeks) [previously MMS 166] ................................................................... 1
CIS 155 Access Fundamentals (5 weeks) [previously MMS 159] ............................................................... 1
SSKL 211 Employment Skills-General (15 hours) .......................................................................................... 1
The Customer Service Representative 90-hour training course offered through the TVI Workforce Training Center can substitute for AA 170, 171 and 173.

## PARALEGAL STUDIES (Formerly Legal Assistant Studies)

## Business Occupations Department

The Paralegal Studies (PL) program trains qualified men and women for entry into the legal profession. The program is approved by the American Bar Association (ABA). Paralegals are skilled professionals who perform substantive legal tasks 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 and other commercial firms.

Students are presented 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 paralegal. The ethical issues inherent in the practice of the profession are stressed.

BA 150 is a prerequisite to CIS 120 and 123.
Information about this program is available from the Paralegal Studies Office at 224-3845 or from the Advisement Centers at 224-3177 or 224-5646.

A suggested schedule per term for the associate of applied science degree program in Paralegal Studies includes:
Term 1: ENG 101, PL 101, 102, 123
Term 2: CIS 120 or 123, ENG 102, PL 111, 124, PSY 105
Term 3: MATH 119, PHIL 156, PL 203 or 206, 204, 233
Term 4: PL 224, PL 230 or 243, PL 231A, 231B, 231C, COMM elective
Term 5: PL 221, PL 223 or 225 or 294, PL 298 or 299, 3 credit elective course

## DEGREE REQUIREMENTS

Course No. Course Name Credit Hours
CIS $120 \quad$ WordPerfect for Windows [previously MMS 134]
or CIS 123 Microsoft Word for Windows [previously MMS 135] .................................................................. 3
COMM Elective ............................................................................................................................................. 3
ENG 101 College Writing ............................................................................................................................. 3
ENG 102 Analytic and Argumentative Writing ............................................................................................ 3
MATH 119 Methods of Problem Solving or higher (except MATH 215 and 296) .......................................... 4
PHIL 156 Logic and Critical Thinking .......................................................................................................... 3
PL 101 Introduction to Paralegal Studies [previously LAS 101] ............................................................... 3
PL 102 Business Organizations [previously LAS 102] .............................................................................. 3
PL 111 American Law and Ethics [previously LAS 111] .......................................................................... 3
PL 123 Torts [previously LAS 123] ............................................................................................................ 3
PL 124 Legal Research and Writing I [previously LAS 124] .................................................................... 3
$\begin{array}{ll}\text { *PL } 203 & \text { Civil Litigation [previously LAS 203] } \\ \text { or *PL } 206 & \text { Criminal Litigation [previously LAS 206] ...................................................................................... } 3\end{array}$
PL 204 Legal Research and Writing II [previously LAS 204] .................................................................. 3
PL 221 Wills, Probate and Estate Planning [previously LAS 221] ............................................................ 3
PL 223 Domestic Relations [previously LAS 223]
or PL 225 Constitutional Law [previously LAS 225]
or PL 294 Mediation [previously LAS 294]
PL 224
Evidence [previously LAS 224]3
*PL $230 \quad$ Civil Litigation II [previously LAS 230]
or *PL 243 Criminal Litigation II [previously LAS 243] ................................................................................. 3
PL 231A Computer-Aided Legal Research .................................................................................................. 1
PL 231B Computer Applications in Law Practice ........................................................................................ 1
PL 231C Specialized Legal Software ............................................................................................................ 1
PL 233 Law Office Management [previously LAS 233] ........................................................................... 3
PL 298 Internship [previously LAS 298]
or PL 299 Cooperative Education [previously LAS 299] ................................................................................ 4
PSY 105 Introduction to Psychology .............................................................................................................. 3
Approved Electives ....................................................................................................................... 3
Total ................................................................................................................................................ 68
*Course not chosen to fulfill requirement may be taken to fulfill the elective.
Approved Electives
ACCT 101 Accounting I
or ACCT 101A and ACCT 101B .....  6
BA 270 Real Estate Law ..... 3
CIS 110 DOS Fundamentals (5 weeks) [previously MMS 151] ..... 1
CIS 126 Desktop Publishing Using Word (5 weeks) [previously MMS 154] ..... 1
CIS 142 Presentation Graphics [previously MMS 257] ..... 3
CIS 150 Excel Fundamentals (5 weeks) [previously MMS 158] ..... 1
CIS 155 Access Fundamentals (5 weeks) [previously MMS 159] ..... 1
CIS 160 Introduction to Internet (5 weeks) [previously MMS 160] ..... 1
CIS 210 Office Management Software (5 weeks) [previously MMS 156] ..... 1
CR 132 Medical Terminology and Anatomy ..... 3
CR 240 Legal Terminology ..... 3
JUD 101 Introduction to Judicial Studies ..... 3
JUD 102 Introduction to Court Operations and Ethics ..... 1
PL 201 Contract Law [previously LAS 201] ..... 3
PL 223 Domestic Relations [previously LAS 223] .....  3
PL 225 Constitutional Law [previously LAS 225] .....  3
PL 232 Personal Injury Law [previously LAS 232] ..... 3
PL 234 Administrative Law [previously LAS 234] ..... 3
PL 236 Employment Law [previously LAS 236] .....  3
PL 242 Native American Law [previously LAS 242] ..... 3
PL 244 Social Security Law (5 weeks) [previously LAS 244] ..... 1
PL 245 Bankruptcy Law (5 weeks) [previously LAS 245] ..... 1
PL 294 Mediation [previously LAS 294] .....  3
PL 295 Public Defender [previously LAS 295] ..... 3
PL 296 Topics Course [previously LAS 296] ..... 3
PL 297 Special Problems [previously LAS 297] ..... 3

## PAYROLL CLERK

## Business Occupations Department

The Business Occupations Department offers a Verification of Completion upon completion of a cluster of courses from 6 to 28 credit hours that offer skills and competencies in a specific career area. These course clusters may be (1) part of a pathway to a business certificate or an associate of applied science degree or (2) a combination of courses that provide skills and competencies from several business certificates or associate of applied science degrees.
A Verification of Completion provides opportunities for students to gain skills and competencies needed for emerging business strategies and is awarded by the Business Occupations Department. Application for a Verification of Completion may be made with the department upon completion of the course cluster.
Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits.
Information about these courses is available from the Business Occupations Department at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.
Course No. Course Name
Credit Hours
ACCT 101 Accounting I .................................................................................................................................. 6
ACCT 111 Business Math .................................................................................................................................. 3
ACCT 170 Payroll Accounting ......................................................................................................................... 3
ACCT 180 Accounting Applications ................................................................................................................ 3
BA 131 Business Interpersonal Skills (7.5 weeks) ...................................................................................... 2
BA 150 Introduction to Computers (or CP 176, or CSCI 101).................................................................... 4
Total .............................................................................................................................................. 21

## PERIOPERATIVE NURSE SPECIALIST

## Health Occupations Department

These special courses provide RNs and LPNs with the skills and knowledge to work in hospital operating rooms or free-standing day surgical units. Twelve-week courses are offered in the summer term.
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. Applicants should call the Health Occupations Department at 224-4111 to schedule an interview with the instructor. Applicants must be current licensed nurses.
During the first week of the course, students must submit proof to the instructor of current immunizations, New Mexico RN or PN license, CPR card and a physical exam.

There is a $\$ 12$ uniform fee which covers the cost of hospital parking permits, name tags and preventive lab tests in case of needle stick exposure. Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-4166.
Course No. Course Name
Credit Hours
PRNS 260L Perioperative Nurse Specialist Theory/Lab .................................................................................... 8
PRNS 265C Perioperative Nurse Specialist Clinical Experience ....................................................................... 6
Total ............................................................................................................................................... 14

## PHARMACY TECHNICIAN

## Health Occupations Department

Pharmacy Technician is a two-term certificate program that prepares persons to assist pharmacists in the community or hospital pharmacy. Students prepare, mix, assemble and label medications. They also prepare sterile products including irrigation and intravenous admixtures. Instruction is provided in the classroom, in laboratories on campus and in local health care facilities. Arts \& Sciences courses listed in the curriculum may be taken prior to entering the program.

There is a $\$ 35$ uniform fee for one lab coat, and nametag.
Prerequisites are:
■ high school diploma or equivalent
■ RDG 099 or equivalent
■ ENG 099 or equivalent

- MATH 100A or equivalent
- CHEM 100 or High School Chemistry

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-4168.

| Course No. | Course Name | Credit Hours |
| :---: | :---: | :---: |
| PT 110 | Introduction to Pharmacy Technology | 3 |
| PT 111L | Pharmacy Technician Lab I | 2 |
| PT 115 | Pharmacy Technician Anatomy and Physiology | 3 |
| PT 116 | Pharmacy Calculations | 3 |
| PT 120 | Advanced Pharmacy Technology | 3 |
| PT 121L | Pharmacy Technician Lab II | 2 |
| PT 122C | Pharmacy Technician Practicum | 5 |
| PT 125 | Pharmacology for Pharmacy Technicians | 3 |
| Required Arts \& Sciences Courses |  |  |
| COMM 221 | Interpersonal Communication Studies | ..... 3 |
| $\begin{aligned} & \text { CSCI } 101 \\ & \text { or BA } 150 \\ & \text { or CP } 176 \mathrm{~L} \end{aligned}$ | Computer Skills |  |
|  | Intro to Computer Processing |  |
|  | Introduction to Technology Computer Applications . | ....... 4 |
|  | Total .................................................................. | ............ 31 |

## PHLEBOTOMY

## Health Occupations Department

The primary work of a phlebotomist is to draw blood specimens for testing from healthcare clients. The job includes establishing a professional relationship with the client, obtaining blood specimens by venipuncture and skin puncture procedures, performing bedside testing, preparing and maintaining equipment, entering data into the computer and performing clerical duties. The job requires a lot of walking, bending and standing.

Applicants are required to present evidence of current hepatitis B (HBV), tetanus, rubella and rubeola immunizations, PPD testing and certification in cardiopulmonary resuscitation (CPR) before beginning the clinical part of the course. Students should possess good organizational skills and the ability to prioritize duties, the ability to communicate with clients, and manual dexterity.

To receive a certificate, a student must complete the eight-week, 220-hour program, which includes four weeks of classroom instruction in theory and lab and four weeks of experience in local hospitals and/or clinics, with a grade of C or better in all courses. The program is offered each term.

A $\$ 53$ uniform fee covers the cost of a lab coat, health tests, name tags, hospital parking permits and preventive lab tests in case of needle stick exposure.

Prerequisites are:

- high school diploma or equivalent

■ MATH 099 or equivalent

- ENG 099 or equivalent

■ RDG 099 or equivalent
Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-5068.
Course No. Course Name
Credit Hours
PHLB 110 Phlebotomy Theory .......................................................................................................................... 3
PHLB 110L Phlebotomy Lab ............................................................................................................................. 1
PHLB 122C Clinical Phlebotomy ........................................................................................................................ 3
Total ............................................................................................................................................... 7

## PHOTONICS TECHNOLOGY (pending CHE approval)

## Technologies Department

The Photonics Technology is one of the most rapidly growing technical fields in America today. The trained technician can expect favorable job opportunities, promotion potential and rapid advancement. A primary emphasis of the curriculum is to provide graduates with extensive hands-on training in the scientific procedures and applications utilized by laser and fiber optic companies and research laboratories.

The program is designed to expose students to four major areas: Laser Systems, Electronics, Optics, and ElectroOptics. Students learn about the laser both as an instrument and as an integral part of a system designed for industrial application. The program covers topics such as laser alignment, safety and the use of lasers in electronics production, testing, and maintenance. Through the program, students acquire a good working knowledge of light, geometrical and physical optics, optical components and optical systems. In addition, students receive in-depth classroom preparation in the scientific principles of laser and fiber optics to incorporate their skills and knowledge into developing Electro-Optical Techniques and Systems.

This program offers a one-year certificate and a two-year Associate of Applied Science degree in Photonics Technology. Upon the successful completion of requirements for the certificate, students will receive a certificate as Installer. Upon the successful completion of requirements for the degree, as listed below, graduates will receive the Associate in Science Degree in Photonics Technology and be eligible for entry-level technical positions in a wide range of scientific disciplines utilizing laser and fiber optic technology. For more information call 224-3340.

## CERTIFICATE AND DEGREE CORE REQUIREMENTS

Course No. Course NameELEC 103A Electronics Fundamentals A ............................................................................................................ 4
and ELEC 103B Electronics Fundamentals B ..... 4
or ELEC 103L Electronics Fundamentals ..... 8
ELEC 104 Electronics Mathematics ..... 4
MT 205 Applied Science ..... 6
PHOT 101L Introduction to Photonics and Photonics Safety ..... 4
PHOT 111L Fiber Optics Components .....  3
PHOT 201L Optics ..... 6
PHOT 207L Introduction to Laser Systems ..... 4
Total for Certificate ..... 35
Additional Degree Requirements
Credits transferable from the Certificate ..... 35
ENG 101 College Writing ..... 3
ENG 119 Technical Writing .....  3
ELEC 114L Semiconductor Devices ..... 6
MATH 120 or MATH 145 or MATH 123 ..... 4
PHOT 211L Advanced Fiber Optics .....  3
PHOT 217L Advanced Laser Systems with Applications ..... 6
PHOT 225L Photonics Project ..... 4
COMM 211 or COMM223 or COMM 225 or COM 232 .....  3
Technical Elective ..... 3
Total Credits for Degree ..... 70
Technical Electives
ELEC 105L Digital Circuits ..... 4
ELEC 118L Electromechanical Devices ..... 6
ELEC 205L Analog Circuits ..... 6
ELEC 276L Soldering Techniques ..... 2
ELEC 276L Advanced Soldering Techniques ..... 2
PC 212L Vacuum Systems ..... 2
PHOT 296 Topics ..... 1-6
PHOT 297 Special Problems ..... 1-6
PHOT 298 Cooperative Education ..... 3
PHOT 299 Internship ..... 3

## PLUMBING

## Trades \& Service Occupations Department

The Plumbing certificate program provides safety training, technical knowledge and occupational skills necessary to enter the plumbing industry. Fundamentals of layout, assembly and installation are covered, as well as nomenclature of tools and materials and practice with the tools of the trade. Courses also may be applied toward a degree in Mechanical Technology.

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.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3716.

A suggested schedule per term includes:
Term 1: PLMB 101, 101L, 102, 102L, 103, 103L, 105, 106L, EPT 213
Term 2: PLMB 111, 111L, 112L, 115, 116L, 173L, MH 104, MH 106

## CERTIFICATE REQUIREMENTS

Course No. Course Name Credit Hours
PLMB 101 Basic Plumbing Theory ..... 1
PLMB 101L Basic Plumbing Lab ..... 2
PLMB 102 Plumbing Systems Theory ..... 1
PLMB 102L Plumbing Systems Lab ..... 2
PLMB 103 Heating Control Circuitry Theory ..... 1
PLMB 103L Heating Control Circuitry Lab ..... 1
PLMB 105 Plumbing Blueprint Reading I ..... 1
PLMB 106L Backflow Prevention ..... 2
EPT 214A Occupational Safety I ..... 1
EPT 214B Occupational Safety II ..... 1
EPT 214C Occupational Safety III ..... 1
PLMB 111 Systems Layout/Maintenance Theory ..... 1
PLMB 111L Systems Layout Lab ..... 2
PLMB 112L Systems Maintenance Lab .....  2
PLMB 115 Plumbing Blueprint Reading II ..... 2
PLMB 116L Building Maintenance, Heating and Cooling ..... 1
MH 104 Manufactured Housing Plumbing ..... 2
MH 106 Manufactured Housing Appliance Services ..... 2
Total ..... 26
Optional Courses
PLMB 170 Trades Math ..... 1
PLMB 171 Journeyman Preparation ..... 3
PLMB 173L Orbital Welding Systems ..... 3
PLMB 174L Polyvinlediene Fluoride (PVDF) Welding Systems ..... 4
PLMB 296 Special Topics. ..... 1-6
PLMB 297 Special Problems ..... Variable

## PRE-ENGINEERING

## Technologies Department

$T$he Pre-Engineering program includes general background courses in mathematics and science and an introduction to the concepts and methods of engineering. The associate degree represents a halfway point for those seeking a bachelor's degree in engineering, as graduates may continue their studies in a specialized area of engineering at a four-year college. Students planning to transfer to complete bachelor of science degree programs are advised to refer to the catalogs of their receiving institution. This degree does not prepare one for specific job opportunities; but, rather, provides a broad educational background on which to build a career through further education or work experience. The student who is interested in a two-year program that will provide specific work skills should consider other programs at TVI.

Degree requirements include completion of all courses in the curriculum (or equivalent), for a total of 63-64 hours.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-3340.

## ASSOCIATE OF SCIENCE DEGREE REQUIREM ENTS

Course No. Course Name Credit Hours
Term 1
MATH 162 Calculus 1 ...................................................................................................................................... 4
ENG 101 College Writing ................................................................................................................................ 3
CHEM 121/121L General Chemistry I ....................................................................................................................... 4
${ }^{1}$ Social Science Elective ................................................................................................................... 3
Term 2
CSCI 151 Intro to Computer Programming .................................................................................................... 4
ENG 102 Analytic and Argumentative Writing .............................................................................................. 3
PHYS 160 General Physics I ........................................................................................................................... 4
MATH 163 Calculus II....................................................................................................................................... 4
${ }^{1}$ Humanities Elective ..................................................................................................................... 3
Term 3
MATH 264 Calculus III ...................................................................................................................................... 4
PHYS 161 General Physics II ............................................................................................................................ 4
ENG 219 Technical Writing ........................................................................................................................... 3
${ }^{1}$ CHEM 122/122L or Science Elective ..... 3-4
${ }^{1}$ Social Science Elective ..... 3
Term 4
PHYS 262 General Physics III ..... 4
SPAN 101 or FREN 101 ..... 4
${ }^{1}$ Humanities Elective ..... 3
${ }^{1}$ Fine Arts Elective [Music (non-studio) or Art or Theatre] ..... 3
Total for Associate Degree ..... 63-64
${ }^{1}$ The Humanities, Science, Social Science and Fine Arts electives may be chosen from a variety of Arts \& Science courses in the TVI Catalog.Students planning to transfer to complete bachelor degree programs are advised to refer to the catalogs of their receiving institution.

## PRE-MANAGEMENT

## Business Occupations Department

Pre-Management is an associate of arts degree designed to substantially fulfill the freshman and sophomore course requirements for admission to baccalaureate degree programs at New Mexico colleges and universities. The degree's general education curriculum is accepted for transfer as the general education core. Articulation agreements have been made with New Mexico Highlands University and the Anderson Schools of Management at the University of New Mexico to facilitate the transfer process.

Students should communicate with the Pre-Management associate dean as well as with admissions advisors at the college or university where they plan to complete the bachelor's degree. Courses taken with the credit/no credit option, transfer credits and non-traditional credits which are accepted by TVI may not be accepted by the transfer institution.

Information about this program is available from the associate dean at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.

A suggested schedule per term for the associate of arts degree in Pre-Management includes:
Term 1: BA 113 or 133, ENG 101, BA 150 or CSCI 101, MATH 121
Term 2: ENG 102, ECON 200, PSY 105 or SOC 101, a statistics course ${ }^{1}$, science
Term 3: ECON 201, ENG 219, 220 or COMM 130, 221 or 232, lab science, social and behavioral science elective, language
Term 4: ACCT 101, humanities elective, fine arts elective, additional transferable courses ${ }^{2}$
Term 5: ACCT 102, BA 211, social \& behavioral science elective, additional transferable courses ${ }^{2}$
${ }^{1}$ Depending on requirements of the college or university to which the student will transfer, additional MATH courses may be required prior to the statistics course. Students should consult the Pre-Management associate dean or admissions advisor at the transfer institution.
${ }^{2}$ Consult the Pre-Management associate dean or admissions advisor at the transfer institution.

## Recommendations and Additional Transferable Courses

New Mexico Highlands University
Recommended: MATH 145, BA 133
Transferable: ACCT 111 (equivalent to BUS 110 at NMHU); ACCT 201 (equivalent to ACCT 387 at NMHU);
ACCT 280 (equivalent to ACCT 288 at NMHU); BA 222 (equivalent to MKTG 302 at NMHU)
Anderson Schools of Management
Recommended: MATH 180, 245 (180 is prerequisite), BA 113
Transferable: MATH 162 or 180
GENERAL EDUCATION REQUIREMENTS
Communications (students having advanced placement in English may replace credit hours
with upper level English, excluding ENG 119)
ENG 101 and 102 or equivalent ..................................................................................................... 6

Subtotal ............................................................................................................................................ 9
Mathematics $^{1}$ (See recommended courses for transfer institution)
MATH 121 or 150 .................................................................................................................. 3-4
MATH 145 or 245 (statistics; MATH 180 is prerequisite for 245) ............................................... 3
Subtotal ...................................................................................................................................... 6-7
Laboratory Science (must include one lab) ................................................................................................................... 7
PSY 105 or SOC 101 ..... 3
ECON 200 and 201 ..... 6
Two additional courses from anthropology, economics, political science, geography, psychology, sociology ..... 6
Subtotal ..... 15
Humanities (see Liberal Arts for listing of courses) ..... 3
Language (non-English) (see Liberal Arts for listing of courses) ..... 3
Fine Arts (art, music, or theater) (see Liberal Arts for listing of courses) ..... 3
Total General Education Requirements ..... 46-47
BUSINESS REQUIREMENTS
ACCT 101 and 102 (transfers equivalent to 6 credit hours) ..... 9
BA 150 or CSCI 101 ..... 4
BA 113 or 133 (See recommendations for transfer institution) .....  3
BA 211 ..... 3
Total Business Requirements ..... 19*
Total ..... 65-66*
*Transfers as 62 credit hours since 9 hours of accounting transfer as six.
PROFESSIONAL COOKING
Trades \& Service Occupations Department

The Professional Cooking certificate program emphasizes preparation and presentation of flavorful, nutritional meals, and occupational safety/sanitation. Speed and efficiency are stressed in hands-on kitchen/restaurant situations. Students are prepared for entry as food service workers into the rapidly growing food and hospitality industry. Courses also may be applied toward a degree in Culinary Arts.
Classes are held in modern commercial kitchens where students prepare food and operate a cafeteria line including cash registers. Advanced students operate the Student Specialties dinner program, a fine dining restaurant open to the public. Students must be free of chronic allergies. A physician's certificate must be presented to TVI before the start of lab classes stating that the student is free from tuberculosis in a transmissible form.
Students are required to purchase as least two sets of chef's uniforms, including all leather, black or white, uniform/work shoes (no tennis shoes), textbooks, and tools. Students may purchase these items before the beginning of classes at a place of their choice (TVI Bookstore has textbooks). A list of required tools, uniforms, and textbooks is available from TVI advisors (Student Services Building) or from the Trades \& Service Occupations Department. Uniforms cost approximately $\$ 100$, uniform shoes cost approximately $\$ 80$ to $\$ 100$, and tools cost approximately $\$ 115$.
Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3762. A suggested schedule per term includes:
Term 1: QUFD 101, 103L, 105L, 107L, 108L, FSMG 101A, 101B, BKNG 102
Term 2: QUFD 111, 112L, 113L, 114L, 115L, computer course

## CERTIFICATE REQUIREMENTS

Course No. Course Name Credit Hours
BKNG 102 Food Service Math ..... 2
QUFD 101 Quantity Food Theory I ..... 2
QUFD 103L Buffet Procedures ..... 2
QUFD 105L Breakfast/Lunch ..... 2
QUFD 107L Cold Food Preparation ..... 2
QUFD 108L Quantity Food Production ..... 2
FSMG 101A Food Sanitation Principles ..... 2
FSMG 101B Applied Food Safety ..... 1
QUFD 111 Quantity Food Theory II ..... 2
QUFD 112L Dining Room Skills ..... 2
QUFD 113L Cold Food Preparation II ..... 2
QUFD 114L Stocks and Sauces-Sous Chef ..... 2
QUFD 115L Entree (Meat and Fish Preparation) ..... 2
Computer Requirement
BA 150 Introduction to Computer Processing or CP 176 Introduction to Technology Computer Applications
or CSCI 101 Computer Literacy ..... 4
Total ..... 29
Optional Courses
CTRG170L Catering ..... 10
QUFD 296 Special Topics. ..... 1-6
QUFD 297 Special Problems. ..... Variable

## REAL ESTATE

## Business Occupations Department

The Real Estate courses are for persons seeking New Mexico state licensing or continuing education credits in real estate and appraisal. The New Mexico Real Estate Commission approves all courses. Courses listed may be used to meet requirements for the real estate concentration in Business Administration.

Credit courses that meet New Mexico Real Estate Commission requirements are:


## RECREATION AND LEISURE (pending CHE approval)

## Trades \& Service Occupations Department

TWe Recreation and Leisure certificate and associate degree programs' intent is to increase the availability of qualified professionals who plan, organize, direct and implement leisure activities for people of all ages, social and economic levels and degrees of physical and emotional health. The goals are:

1) To prepare individuals for employment in a variety of recreation and leisure settings (community centers, parks, senior centers, after-school activity centers, correctional institutions, camps, YMCAs, etc) and in a variety of recreation and leisure positions (aquatics specialist, armed forces recreation leader, camp counselor, community center director, cruise ship recreation leader, youth sports coach, corporate wellness leader, etc.).
2) To prepare individuals for the requirements set forth by the National Park and Recreation Association (NPRA) leading to the Associate Park and Recreation Professional Certification.
3) To serve as professional development and provide a "career ladder" for individuals presently employed in the recreation and leisure field.
4) The associate degree will prepare those wishing to pursue a four-year degree in recreation and leisure.

The Recreation and Leisure program is a progressive program that allows students to pursue a general Recreation and Leisure Professional Core Competencies Certificate. The Professional Core Competencies Certificate is granted upon completion of the Recreation and Leisure Core Requirements and indicates that the student has demonstrated the knowledge, understanding and ability of an entry-level professional in the recreation, park resources and leisure field. Upon completion of this certificate, the student has the option of completing an additional certificate or certificates in three different concentrations (Natural Resources Recreation Management, Community Recreation, and/or Therapeutic Recreation). After completing the second concentration, the student can then complete additional course work leading to an Associate of Applied Science Degree.

A suggested schedule includes:
Term 1: RL 101, RL 102, COMM 221, Computer Elective
Term 2: RL 103, RL 105, HT 131, EPT 113A, FITT 170, PSY 105
Term 3: Concentration courses
Term 4: ENG 101, ECON 201, SOC 101, Humanities Elective, Lab Science Elective
Term 5: ENG 102, MATH 119, Humanities Elective, Lab Science Elective
Recreation and Leisure Professional CompetenciesCertificate Requirements/Core Requirements
Course No. Course Name Credit Hours
COMM 221 Interpersonal Communication Studies ..... 3
EPT 113A Hazards and Protection Training I ..... 1
FITT 170 Physical Fitness I ..... 1
HT 131 Club Management ..... 3
PSY 105 Introduction to Psychology ..... 3
RL 101 Introduction to Recreation and Leisure ..... 3
RL 102 Recreation Leadership ..... 3
RL 103 Recreation Program Planning ..... 3
RL 105 Behavior Management ..... 3
Computer Requirement
BA 150 Introduction to Computer Processing or CP 176 Introduction to Technology Computer Applications or CSCI 101 Computer Literacy ..... 4
Total Hours Required for General Professional Competencies Certificate ..... 27
Certificate of Emphasis(Choose at least one concentration)
Natural Resources Recreation Management Concentration
Principles and techniques of planning, designing and developing outdoor recreation activities and the environmental impacts associated with multiple use of natural resources.
HT 104 Tourism and the Hospitality Industry ..... 3
RL 111 Principles of Outdoor Recreation ..... 3
RL 112 Natural Resources Recreation Management .....  3
RL 298A Natural Resources Recreation Management Internship .....  3
Total ..... 12
Community Recreation ConcentrationTheory and application of the development, planning, implementation and evaluation of recreation and leisureprograms for various community populations with special emphasis on youth and older adults.
CDV 207 Management of Early Childhood Programs ..... 3
FITT 290 Exercise Prescription for Special Populations .....  3
RL 121 Principles of Sports Management ..... 3
RL 131 Recreation Programming for Older Adults .....  3
RL 298B Community Recreation Internship .....  3
Total ..... 15
Therapeutic Recreation Concentration
Teaching individuals with physical, developmental and psychiatric disabilities social skills through recreation.
CDV 206 Working with Special-Needs Children ..... 3
FITT 290 Exercise Prescription for Special Populations ..... 3
RL 141 Introduction to Therapeutic Recreation ..... 3
RL 298C Therapeutic Recreation Internship ..... 3
Total ..... 12
Total Hours Required for Single Concentration ..... 39-42
COURSES REQUIRED FOR DEGREE
ECON 201 Microeconomics .....  3
ENG 101 College Writing ..... 3
ENG 102 Analytic \& Argumentative Writing ..... 3
MATH 119 Methods of Problem Solving ..... 4
SOC 101 Introduction to Sociology ..... 3
Lab Science Elective (Select not more that one from each discipline if transferring to NMHU: ASTR 101, ASTR 102, BIO 121/121L, BIO 122/122L, CHEM 111, CHEM 112, PHY 151, PHY 152, PHY 160, PHY 161) .....  8
Humanities Elective (Select one from each group if transferring to NMHU (Group I: HIST 101, HIST 102, HIST 161, HIST 162, PHIL 110 or PHIL 156; Group II: ART 106, MUSIC 139, MUSIC 140, THEA 111, HUM 111 or HUM 12) .....  .6
Total Hours Required for Degree ..... 69-72

## REGISTERED NURSE REFRESHER

## Health OccupationsDepartment

The RN Refresher special courses meet the requirements of the State of New Mexico Nursing Practice Act 61-3-24.D. for nurses who have not been actually engaged in nursing for five years or more. It is approved by the New Mexico Board of Nursing. The curriculum focuses on updates in all major areas of nursing practice. A physical exam, PPD, current immunizations and current CPR certification for healthcare professionals (BLS) are required to start clinical experience. White uniform and shoes and a stethoscope are required for clinical experience.

The $\$ 25$ uniform fee covers the cost of supplies and preventive lab tests in case of needle stick exposure. There are additional fees payable to the New Mexico State Board of Nursing for licensure endorsement and reinstatement if a nursing license has expired.

The eight-week RN Refresher course may be offered twice a year, spring and summer via Distance Learning or on the main campus. Students are required to pay a Distance Learning fee if the course is offered through Distance Learning. Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-4176.
Course No. Course Name Credit Hours
RNR 255L Refresher Theory/Lab ..................................................................................................................... 7
RNR 265C Refresher Clinical Experience ....................................................................................................... 2
Total .................................................................................................................................................. 9

## RESIDENTIAL WIRING

## Trades \& Service Occupations Department

The Residential Wiring certificate program provides the student with job-site safety training, OSHA compliance and entry-level skills for employment in residential electrical construction, maintenance or related fields. This two-term certificate is offered for those wishing to pursue a Residential Electrical Journeymen's Certificate of Competency from the State Regulation and Licensing Department (ER-1J). A three-term certificate in Electrical Trades is offered for those wishing to pursue commercial/industrial wiring (EE-98J). For those wishing to earn credit towards an associate in applied science degree in construction technology, a fourth term of electrical courses is available.

Lab instruction is conducted on- and off-campus, enabling students to gain hands-on experience in residential electrical installation. Electrical safety, circuitry, residential electrical materials, residential wiring and residential services are covered in the lab activities. Theory instruction includes safety, National Electrical Code (NEC) compliance, technical information, math, employment skills, computer skills, residential and material analysis.

Students must have normal color differentiation, be free from chronic respiratory diseases and allergies and be able to lift 50 pounds. Most employers require a valid driver's license and a good driving record.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3716.

A suggested schedule per term includes:
Term 1: ELTR 101, 102, 103L, 104L
Term 2: ELTR 112, 113, 114L, 115L

## CERTIFICATE REQUIREMENTS

Course No. Course Name Credit Hours
ELTR 101 Electrical Theory 1 ..... 4
ELTR 102 Electrical Math 1 ..... 3
ELTR 103L Electrical DC/AC Lab. ..... 3
ELTR 104L AC Circuitry, Motors, Generators ..... 3
ELTR 112 Blueprint Reading 1 ..... 3
ELTR 113 Electrical Theory II ..... 4
ELTR 114L Wiring Lab .....  3
ELTR 115L Electrical Services .....  3
Total ..... 26
Optional Courses
ELTR 170 Electrical Wiring Circuitry .....  2
ELTR 171L Conduit Hand Bending Fundamentals ..... 1
ELTR 173 Industrial Motor Control Circuitry ..... 2
ELTR 174L Industrial PC Motor Control ..... 3
ELTR 175 Fiber Optical Cable Installation ..... 2
ELTR 176 Electrical Journeyman Preparation .....  3
ELTR 201 Electrical Theory III ..... 4
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 ..... 4
ELTR 213L PLC Installation and Operation ..... 3
ELTR 214L PLC Systems Operation and Troubleshooting ..... 3
ELTR 296 Special Topics ..... 1-6
ELTR 297 Special Problems. ..... Variable

## RESPIRATORY THERAPY

## Health Occupations Department

The respiratory care profession specializes in diagnostic testing, therapeutic treatment and critical care for patients suffering from life-threatening or chronically disabling cardiopulmonary disorders. A respiratory therapist is a graduate of a two-year associate of science or four-year bachelor of science degree program and is capable of performing at an advanced practice level.

Under medical direction, respiratory therapists assess and treat clinical problems. They monitor and evaluate cardiorespiratory function, perform diagnostic tests and treatments, research treatment effectiveness and act as consultants to physicians, nurses and other healthcare specialists. Respiratory therapists also serve as educators.

Employment opportunities are in urban and rural healthcare facilities and with medical equipment suppliers and agencies providing home healthcare and rehabilitation services.

The TVI Respiratory Therapy (RT) associate of science program includes classroom and laboratory instruction and supervised clinical experiences at local hospitals and other facilities. The curriculum includes basic and
advanced instruction in cardiorespiratory anatomy, physiology and pathophysiology, critical care medicine, cardiopulmonary function, respiratory home care and pulmonary rehabilitation. The emphasis is on developing problem-solving and decision-making skills. The RT program includes instruction by faculty from the University of New Mexico Medical Center and School of Medicine.

The program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and the Committee on Accreditation for Respiratory Care (COARC). Graduates are eligible to take the National Board for Respiratory Care (NBRC) Certification and Registry examinations to obtain Certified Respiratory Therapist (CRT) 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.

The program begins in the fall term. Information sessions covering the petition and selection process and respiratory care careers are scheduled regularly; students should contact the Health Occupations Department for dates and times or call the Health Occupations information hotline at 224-4161. Anyone interested in the Respiratory Therapy program is strongly encouraged to attend one of these information sessions.

Students are responsible for meeting the prerequisites. Arts \& Sciences courses may be taken prior to entering the program and it is recommended that students complete as many of these courses as possible prior to entering the RT core courses. Once all prerequisite requirements are fulfilled, students may petition for enrollment in the core courses of the RT curriculum. If the number of eligible petitioners exceeds the number of positions available, preference will be given to those who have completed the most Arts \& Sciences courses required for the RT curriculum. Petitioners will then be ranked by date of completion of petition eligibility requirements. If necessary, petitioners will be randomly selected. Additional positions may be made available for individuals with established residence in rural communities of New Mexico. The procedure for admission to the program under this condition is available from the director of the Respiratory Therapy program. Students accepted to begin RT courses must have a physical exam and submit a completed health form with evidence of current immunizations before beginning clinical courses.

Students pay an initial $\$ 100$ uniform fee to cover the cost of the uniform, stethoscope, identification badges, CPR certification, hospital parking permits and preventive lab tests in case of needle stick exposure. An additional \$20 fee during the second year is for ACLS certification. A $\$ 125$ fee for the last clinical course covers the cost of assessment exams to prepare for national board tests.

Prerequisites that must be completed prior to enrollment to RT courses are:

- declare RT as major

■ high school diploma or equivalent

- MATH 119 or equivalent
- BIO $123 / 124 \mathrm{~L}$ or equivalent
- ENG 101 or equivalent

■ PSY 105 or SOC 101 or equivalent

- TVI GPA 2.0 or higher

Advanced Placement: Advanced placement means enrollment in RT coursework at or above the level of RT 210. Persons wanting to transfer or challenge RT courses should contact the Health Occupations Department 224-4111. There are two ways in which advanced placement can be granted to Respiratory Therapy applicants:

1) Transfer: Transfer credit may be awarded for documented equivalent therapist coursework completed at other CAAHEP/COARC accredited programs.
2) Challenge: Technician graduates with documented work experience in respiratory care may apply to challenge portions of the RT curriculum. There is a $\$ 15$ fee for each challenge exam.
Challenge and transfer applicants must meet all prerequisites for enrollment in the RT program. Entry will be granted on a space available basis.

In order to satisfy prerequisite and corequisite requirements, the following order of coursework is recommended:
Fall Term: RT 110, 115L, 121C, 131 and CHEM 111/112L
Winter Term: RT 111, 116L, 122C, 133 and BIO 237/247L
Summer Term: RT 210, 215L, 221C, and PHIL 245M
Fall Term: RT 211, 216L, 222C and BIO 238/248L
Winter Term: RT 212, 217L, 223C and BIO 239/239L
Information about this program is available from the Advisement Center at 224-3177 or 224-5646 and from the program director at 224-4123.

## REQUIRED RESPIRATORY THERAPY COURSES

| Course No. | Course Name | Credit Hours |
| :---: | :---: | :---: |
| RT 110 | Respiratory Therapy Principles and Practices I | .... 3 |
| RT 111 | Respiratory Therapy Principles and Practices II | 3 |

RT 115L Respiratory Therapy Lab I ..... 1
RT 116L Respiratory Therapy Lab II ..... 1
RT 121C Clinical Experiences I .....  5
RT 122C Clinical Experiences II ..... 5
${ }^{1}$ RT $131 \quad$ Physics of Respiratory Therapy ..... 3
RT 133 Pharmacology of Respiratory Therapy ..... 3
RT 210 Advanced Respiratory Therapy I ..... 3
RT 215L Advanced Respiratory Therapy Lab I ..... 1
RT 221C Advanced Clinical Experiences I ..... 5
RT 211 Advanced Respiratory Therapy II ..... 3
RT 216L Advanced Respiratory Therapy Lab II ..... 1
RT 222C Advanced Clinical Experiences II ..... 5
RT 212 Advanced Respiratory Therapy III ..... 3
RT 217L Advanced Respiratory Therapy Lab III .....  1
RT 223C Advanced Clinical Experiences III .....  5
Required Arts \& Sciences Courses
BIO 237/247L Human Anatomy and Physiology I/Lab ..... 4
BIO 238/248L Human Anatomy and Physiology II/Lab ..... 4
BIO 239/239L Microbiology/Lab ..... 4
${ }^{2}$ CHEM 111/112L Introduction to Chemistry ..... 4
PHIL 245M Biomedical Ethics ..... 3
Total ..... 70
${ }^{1}$ Physics 102 or 151 or equivalent may be substituted for RT 131. ${ }^{2}$ CHEM 121/121L or equivalent may be substituted for CHEM 111/112L
RETAIL MANAGEMENT

## Business Occupations Department

The Retail Management certificate and associate of applied science degree program is designed for students who are planning a career in retailing. This program was developed with the support of the New Mexico Retail Association. The industry-based Retail Management curriculum prepares students for mid-level retail positions such as department managers, assistant managers and entry-level supervisory positions. The retailing courses focus on industry-based skill standards necessary for professional sales associates and retail managers.

A suggested schedule per term for the certificate/associate of applied science degree in Retail Management includes:

## Certificate

## Term 1: ACCT 101A, 111, BA 113 or 133, BA 150, ECM 176

Term 2: ACCT 101B, BA 131, BA 222 or ECM 220, BA 251, ENG 101
Term 3: ACCT 102, 254, BA 252, 253, COMM elective
Term 4: BA 275,295 , BA 298 or 299

## Additional Degree Requirements

Term 4: BA 121, ECM 105, A\&S course
Term 5: BA 211, ECM 220, A\&S course
CERTIFICATE AND DEGREE REQUIREMENTS
Course No. Course Name Credit Hours
ACCT 101A Accounting I A ..... 3
ACCT 101B Accounting I B ..... 3
ACCT 102 Accounting II ..... 3
ACCT 111 Business Math ..... 3
ACCT 254 Electronic Spreadsheets ..... 3
BA 113 Introduction to Business or BA 133 Principles of Management ..... 3
BA 131 Business Interpersonal Skills (7.5 weeks) .....  2
BA 150 Introduction to Computers (or CP 176, or CSCI 101) ..... 4
BA 222 Principles of Marketing
or ECM220 Web Marketing .....  3
BA 251 Retail Management ..... 3
BA 252 Customer Relations ..... 3
BA 253 Retailing ..... 3
BA 255 Supervision .....  3
BA 295 Capstone Course ..... 1
BA 298 Internship
or BA 299 Cooperative Education ..... 4
COMM elective ..... 3
ECM 176 Introduction to Internet Commerce ..... 1
ENG 101 College Writing ..... 3
Total Required for Certificate ..... 51
Additional Degree Requirements
BA 121 Business English ..... 3
BA 211 Business Law ..... 3
ECM 105 Web Business
or BA 284 Sales .....  3
ECON 200 Macroeconomics or higher level ..... 3-4
MATH 119 Methods of Problem Solving or higher (except MATH 215 and 296) ..... 3-4
PHIL 245B Business Ethics .....  3
Total Required for Degree ..... 69-71

## STENOTRANSCRIPTION

## Business Occupations Department

Stenotranscriptionists prepare documents in the following areas: Political Transcribing, Congressional Transcribing and Government Transcribing. Agencies and government employees using transcription professionals in these fields include representatives, senators, political dignitaries, and congressmen. CyberConferencing Specialists are machine shorthand writers who capture sales meetings, press conferences and training seminars from participants in cyber conferencing forums. Other potential career areas for transcriptionists are publishing reporting, corporate reporting, public reporting, educational reporting and media room reporting.

Medical Transcriptionists and Stenoscriptionists are additional career paths where reporters prepare medical records and reports using stenograph machines. The qualified stenoscriptionists are medical language specialists with prerecorded material, rather than spoken accounts from medical professionals. Specialized health care professional transcriptionists are highly sought by the medical industry because of their expertise in anatomy and medical terminology.

To graduate from the stenotranscription program, students must pass three five-minute tests of literary at 140 wpm and three five-minute tests of testimony at 150 wpm with 93 percent accuracy and a transcription rate of 16 wpm .

Each student develops a broad vocabulary and extensive training in document production, grammar and punctuation skills. These courses emphasize accuracy in document production.

AA 101 and AA 102 are prerequisites for CR 103A.
Information about this program is available from the associate dean at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.

A suggested schedule per term for the Stenotranscription certificate program includes:
Term 1: BA 121, BA 131, BA 150, CR 103A
Term 2: CR 104A
Term 3: CR 210A, CR 251
Term 4: CR 298A

## CERTIFICATE REQUIREMENTS

| Course No. | Course Name | Credit Hours |
| :---: | :---: | :---: |
| BA 121 | Business English .. | ..... 3 |
| BA 131 | Business Interpersonal Skills (7.5 weeks) | ..... 2 |

BA 150 Introduction to Computers (or CP 176, or CSCI 101) ..... 4
CR 103A Machine Shorthand I ..... 7
CR 104A Machine Shorthand II ..... 7
CR 210A Machine Shorthand III ..... 8
CR 251 Stenotranscription .....  3
CR 298A Internship ..... 2
Approved Electives ..... 1-4
Total ..... 37-40
Approved Electives
AA 143 Word Processing
or CIS 120 WordPerfect for Windows [previously MMS 134]
or CIS 123 Microsoft Word for Windows [previously MMS 135] ..... 3
AA 231 Business English Applications ..... 3
AA 250 Machine Transcription ..... 3
AA 260 Business Procedures ..... 3
AA 270 Medical Transcription ..... 3
BA 211 Business Law .....  3
BA 252 Customer Relations .....  3
CIS 110 DOS Fundamentals (5 weeks) [previously MMS 151] ..... 1
CIS 130 Microsoft Windows (5 weeks) [previously MMS 150] ..... 1
CIS 160 Introduction to Internet (5 weeks) [previously MMS 160] ..... 1
CR 122 Word Power (7.5 weeks) ..... 1
CR 123 Punctuation for Court Reporters ..... 3
CR 132 Medical Terminology and Anatomy .....  3
CR 240 Legal Terminology ..... 3
CR 250L Computer-Aided Transcription .....  3
CR 252 Medical/Legal Stenotranscription ..... 2
CR 296 Topics Course ..... 1-3
CR 297 Special Problems ..... Variable
CR 299 Cooperative Education ..... 4
ENG 240 Traditional Grammar .....  3
ENTR 101 Entrepreneurship ..... 6
HIT $200 \quad$ Classification of Diseases ((ICD - CM) .....  3
HIT 210 CPT Coding ..... 3

## SURGICAL TECHNOLOGY

## Health Occupations Department

Surgical Technology is a two-term certificate program that presents the knowledge and skills necessary to work in hospital operating rooms and free-standing day surgery centers, including preparation of a surgical environment and functioning as a member of the operating room team. Graduates may take a national certification examination.

All students are required to meet program prerequisites prior to enrolling. Prior to clinical courses students are required to have current Basic Life Support (BLS) provider CPR certification, a physical exam, PPD and current immunizations (including tetanus, rubella, Rubeola and hepatitis B). Surgical Technologists must have the physical and emotional stamina to stand for extended periods of time, $8-10$ hours, while concentrating on a very specific task. The TVI Health Center provides these services for a fee if the student does not have a private physician. Students must arrange for their own transportation to attend all classes, observations and clinical experiences, which may be required on weekends or evenings.

The program begins in the fall term. A $\$ 70$ uniform fee covers the cost of scrubs, hospital parking permits, name tags, self assessment exam, and preventive lab tests in case of a needle stick exposure. Prerequisites are:

■ high school diploma or equivalent

- MATH 099 and RDG 099 or equivalent

■ completion of all required Arts \& Sciences courses before fall term (Note: students must complete all prerequisites required for Arts and Sciences courses).
The following order of courses is recommended:
Fall Term: ST 110, 112L, 114C
Spring Term: ST 120, 124C
Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from theprogram director at 224-4166.
REQUIRED ARTS \& SCIENCE COURSES
Course No. Course Name Credit Hours
BIO123/124L Biology for Health Sciences/Lab ..... 4
BIO 136/139L Anatomy and Physiology/Non-Majors ..... 4
or BIO 237/247L Anatomy and Physiology I ..... 4
and BIO 238/248L Anatomy and Physiology II ..... 4
COMM 221 Interpersonal Communications ..... 3
Required Surgical Technology Courses
ST 110 Beginning Surgical Technology I ..... 4
ST 112L Surgical Technology Lab ..... 3
ST 114C Surgical Technology Clinical I ..... 6
ST 120 Advanced Surgical Technology II ..... 4
ST 124C Surgical Technology Clinical II ..... 8
Total ..... 36-40

## TAX PREPARER FOR INDIVIDUALS

## Business Occupations Department

The Business Occupations Department offers a Verification of Completion upon completion of a cluster of courses from 6 to 28 credit hours that offer skills and competencies in a specific career area. These course clusters may be (1) part of a pathway to a business certificate or an associate of applied science degree or (2) a combination of courses that provide skills and competencies from several business certificates or associate of applied science degrees.

A Verification of Completion provides opportunities for students to gain skills and competencies needed for emerging business strategies and is awarded by the Business Occupations Department. Application for a Verification of Completion may be made with the department upon completion of the course cluster.

Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits. Advisement Centers at 224-3177 or 224-5646.
Course No. Course Name Credit Hours
ACCT 101 Accounting I ..... 6
ACCT 111 Business Math ..... 3
ACCT 150 VITA Tax Preparation ..... 2
ACCT 151 VITA Tax Internship ..... 1
ACCT 240 Tax Accounting I ..... 3
BA 131 Business Interpersonal Skills ( 7.5 weeks) ..... 2
BA 150 Introduction to Computers (or CP 176, or CSCI 101) ..... 4
Total ..... 21

## TRANSPORTATION TECHNOLOGY

## Trades \& Service Occupations Department

The Transportation Technology associate degree is available to students with two concentrations: Automotive Technology and Diesel Equipment Technology. The program prepares individuals for entry-level positions in the transportation industry.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3718.

## AUTOMOTIVE TECHNOLOGY CONCENTRATION

A suggested schedule for per term includes:
Term 1: AUTC 121L,122L, 123L, 126L, MATH 119 or higher
Term 2: AUTC 131L, 132L, 133L, 134L, EPT 214A, 214B, 214C
Term 3: AUTC 221L, 222L, 223L, ENG 101, BA 150 or CP 176 or CSCI 101
Term 4: EPT102, WELD elective, COMM 130 or higher, PHYS 102 or higher, humanities/social andbehavioral science elective
Course No. Course Name Credit Hours
AUTC 121L Brake Systems ..... 4
AUTC 122L Suspension and Alignment ..... 4
AUTC 123L Manual Transmissions ..... 4
AUTC 126L Automotive Electrical ..... 4
AUTC 131L Engine Repair ..... 4
AUTC 132L Automatic Transmissions ..... 4
AUTC 133L Automotive Electronics ..... 4
AUTC 134L Air Conditioning and Heating ..... 4
AUTC 221L Engine Performance I ..... 4
AUTC 222L Engine Performance II ..... 4
AUTC 223L Engine Performance II ..... 4
Additional Required Trades \& Service Occupations Courses
EPT 113A Hazards and Protection Training ..... 1
EPT 113B Hazards and Protection Training II ..... 2
EPT 214A Occupational Safety I ..... 1
EPT 214B Occupational Safety II ..... 1
EPT 214C Occupational Safety III ..... 1
Welding Elective .....  3
Computer Requirement
BA 150 Introduction to Computer Processing
or CP 176 Introduction to Technology Computer Applications or CSCI 101 Computer Literacy ..... 4
Required Arts \& Sciences Courses
COMM 130 or higher .....  3
ENG 101 College Writing ..... 3
Humanities/Social or Behavioral Science Elective ..... 3
MATH 119 or higher ..... 3-4
PHYS 102 or higher .....  3
Total ..... 72-73
DIESEL EQUIPMENT TECHNOLOGY CONCENTRATION
A suggested schedule per term includes:
Term 1: DETC 103, 103L, 104, 104L, 105, 105L, MATH 120 or higher
Term 2: DETC 111L, 112, 112L, 113, 113L, 114, AUTC 126L, ENG 101, EPT 214A, 214B, 214C
Term 3: DETC 201, 201L, 202, 202L, 203, 203L, EPT 102, BA 150 or CP 176 or CSCI 101
Term 4: MATT 105L, WELD elective, COMM 130 or higher, PHYS 102 or higher, humanities/social orbehavioral science elective
Course No. Course Name ..... Credit Hours
DETC 103 Manual Shift Transmissions Theory ..... 1
DETC 103L Manual Shift Transmissions Lab ..... 2
DETC 104 Drive Axles, Brakes and Automatic Transmissions Theory ..... 1
DETC 104L Drive Axles, Brakes and Automatic Transmissions Lab ..... 3
DETC 105 Hydraulic Systems Theory ..... 1
DETC 105L Hydraulic Systems Lab ..... 2
DETC 111 Diesel Engine Overhaul Theory ..... 1
DETC 111L Diesel Engine Overhaul Lab .....  3
DETC 112 Precision Measurement and Component Repair Theory ..... 1
DETC 112L Precision Measurement and Component Repair Lab ..... 2
DETC 113 Diesel Engine Tune-up and Testing Theory ..... 1
DETC 113L Diesel Engine Tune-up and Testing Lab ..... 2
AUTC 126L Automotive Electronics .....  4
DETC 201 Diesel Electrical Theory ..... 2
DETC 201L Diesel Electrical Lab .....  3
DETC 202 Diesel Fuel Injection Theory ..... 1
DETC 202L Diesel Fuel Injection Lab ..... 2
DETC 203 Transport Refrigeration/Air Conditioning Theory ..... 1
DETC 203L Transport Refrigeration/Air Conditioning Lab ..... 2
Additional Required Trades \& Service Occupations Courses
EPT 113A Hazards and Protection Training ..... 1
EPT 113B Hazards and Protection Training II ..... 2
EPT 214A Occupational Safety I ..... 1
EPT 214B Occupational Safety II ..... 1
EPT 214C Occupational Safety III ..... 1
MATT 105L Basic Supporting Machine Tool Principles ..... 2
Welding Elective ..... 3
Computer Requirement
BA 150 Introduction to Computer Processing or CP 176 Introduction to Technology Computer Applications or CSCI 101 Computer Literacy ..... 4
Required Arts \& Sciences Courses
COMM 130 or higher .....  3
ENG 101 College Writing ..... 3
MATH 119 or higher ..... 3-4
PHYS 102 or higher ..... 3
Humanities/Social or Behavioral Science Elective ..... 3
Total ..... 65-66

## TRUCK DRIVING

## Trades \& Service Occupations Department

The Truck Driving certificate program provides students who are already licensed drivers the basic instruction required to become professional commercial truck drivers. Students learn how to operate 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 the Professional Truck Driver Institute of America (PTDIA).

Students must meet the following requirements to be eligible for TRDR 102L and TRDR 103L:
■ not have been convicted of or forfeited bond for more than four moving violations in the past three years;
■ not have more than one at-fault, preventable accident in the past three years;

- not have been convicted of or forfeited bond for reckless driving;
- not have more than one DWI conviction;

■ not have any DWI convictions in the last five years;

- have a valid New Mexico driver's license;

■ have a physical examination at a qualified testing facility;

- obtain pre-qualification testing for controlled substances use;
- be at least 18 years old; and
- provide a certified copy of his or her driving record for the past three years.

Students are subject to all Federal Highway Administration drug and alcohol testing rules. Tests (prequalification, random, post-accident, reasonable suspicion, return-to-duty and follow-up) are performed when applicable for alcohol and controlled substances. Instructors will provide students detailed information regarding federal drug and alcohol testing and physical examination requirements when they enter TRDR 101.

Students pay a non-refundable course fee of $\$ 200$ prior to entering TRDR 102L and $\$ 250$ prior to entering TRDR 103L.

This program may not qualify students for Veterans Administration benefits or other financial aid.
Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3718.
Course No. Course Name ..... Credit Hours
TRDR 101 Basic Operational Theory ..... 7
TRDR 102L Basic Operational Lab ..... 4
TRDR 103L Advanced Operational Practices ..... 3
Total ..... 14
Optional Course
TRDR 171 Material Handling ..... 2
TRDR 296 Special Topics. ..... 1-6TRDR 297 Special Problems.
$\qquad$Variable

## WEB GRAPHICS SPECIALIST

## Business Occupations Department

The Business Occupations Department offers a Verification of Completion upon completion of a cluster of courses from 6 to 28 credit hours that offer skills and competencies in a specific career area. These course clusters may be (1) part of a pathway to a business certificate or an associate of applied science degree or (2) a combination of courses that provide skills and competencies from several business certificates or associate of applied science degrees.

A Verification of Completion provides opportunities for students to gain skills and competencies needed for emerging business strategies and is awarded by the Business Occupations Department. Application for a Verification of Completion may be made with the department upon completion of the course cluster.

Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits.
Information about these courses is available from the Business Occupations Department at 224-3811 or from the Advisement Centers at 224-3177 or 224-5646.
These courses are offered using Macintosh computers.
Course No. Course Name Credit Hours

BGC 202 Digital Drawing ............................................................................................................................. 3
BGC 203 Production PhotoShop .................................................................................................................... 3
CIS 260 Beginning PhotoShop (5 weeks) [previously MMS 173] .............................................................. 1
CIS 261 Intermediate PhotoShop (5 weeks) [previously MMS 174] ........................................................... 1
CIS 262 Advanced PhotoShop (5 weeks) [previously MMS 175] ............................................................... 1
CIS 265 Fireworks (5 weeks) ....................................................................................................................... 1
CIS 272 Macromedia Dreamweaver (10 weeks) ........................................................................................... 2
CIS 273 Macromedia Flash ........................................................................................................................ 3
Total ............................................................................................................................................... 15

## WEB TECHNOLOGY

## Technologies Department

The Web Technology program is designed to meet the needs of a fast-growing industry and career path involving the Internet's World Wide Web. The one-year certificate offers basic entry-level skills in the field. These skills include hypertext markup language (HTML), basic scripting, web design, and programming and network management. The degree offers advanced skills in web management, critical thinking and communication. Courses are arranged to closely mirror industry certification and will assist students in achieving a vendor neutral Certified Internet Webmaster certification (CIW).

To enter the program, the student must meet the prerequisites of Math 100 or equivalent, RDG 099 or equivalent, and CP 176 or equivalent.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3340.
CP 106 Overview of Web Technologies ..... 3
CP 182 Networking Topologies (Network+ Certification Prep) ..... 3
CP 183 Network Operating System (Network+ Certification Prep) ..... 3
CIS 164 Hypertext Markup Language (HTML) ..... 1
CIS 165 Web Construction Coding .....  1
CIS 166 Dynamic Styles ..... 1
Web Designer Courses
CP 105 Fundamentals of Computer Programming ..... 6
CP 117 Web Site Maintenance ..... 1
CIS 190 Beginning Front Page ..... 1
CIS 191 Intermediate Front Page ..... 1
CIS 260 Beginning Photoshop ..... 1
CIS 261 Intermediate Photoshop .....  1
CIS 262 Advanced Photoshop ..... 1
Web Application Developer Courses
CP 132 Introduction to Web Scripting .....  3
CP 213 Database Management (MS Access) ..... 3
CP 274L Introduction to UNIX and WANs ..... 3
CP 295 Web Site Implementation ..... 1
ENG 101 College Writing ..... 3
Total Credits for Certificate ..... 37
Additional Associate of Applied Science Degree Requirements
CP 275 Advanced UNIX and WAN Administration .....  3
MATH 119 Methods of Problem Solving ..... 4
or higher excluding MATH 129 and 215 ..... 3-4
ENG 119 Technical Communications .....  3
or Communications (COMM) Elective ..... 3
Social and Behavioral Sciences or Humanities Elective ..... 3
Arts \& Sciences Elective .....  3
Enterprise Application Developer Courses
CP 133 Survey of Active Server Pages ..... 1
CP 134 Survey of Cold Fusion ..... 1
CP 135 Advanced Web Scripting ..... 3
CP 220 Advanced Database Concepts .....  3
or CP 221 Oracle: SQL and PL/SQL I ..... 3
CP 235 JAVA Programming I. ..... 3
CIS 180 Extensible Markup Language (XML) ..... 1
CIS 181 Business Document Presentation ..... 1
CIS 182 Validating Business Documents ..... 1
Total Credits for Degree ..... 66-67

## WELDING

## Trades \& Service Occupations Department

The Welding certificate program qualifies students for entry-level employment in the metals fabrication industry. All courses emphasize safe operations of various welding equipment. Classes meet in well-equipped labs where students study, practice and simulate qualifying exercises in oxyacetylene, shielded metal-arc (SMAW), gas metal$\operatorname{arc}$ (GMAW), gas tungsten-arc (GTAW) and pipe welding processes. Instruction is also offered in welding fabrication and materials testing. Courses also may be applied to a degree in Metals Technology.
Students must be free of chronic respiratory diseases and have depth perception correctable in both eyes.
Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3718.
A suggested schedule includes:
Term 1: MATT 101, 102; WELD 104L, 106L, 108, 114L, 115L
Term 2: MATT 111, 113, WELD 116L, 202, 205L, 206L, 207L
Course No. Course Name Credit Hours
MATT 101 Metals Math I................................................................................................................................... 2
MATT 102 Metals Blueprint Reading I.............................................................................................................. 2
WELD 104L Oxyacetylene Welding and Cutting ................................................................................................ 2
WELD 106L Introduction to SMAW ..................................................................................................................... 2
WELD 108 Introduction to Metallurgy ............................................................................................................. 2
WELD 114L Advanced SMAW ......................................................................................................................... 2
WELD 115L Introduction to GMAW and Fabrication ....................................................................................... 2
MATT 111 Metals Math II ................................................................................................................................. 2
MATT 113 Metals Blueprint Reading II ........................................................................................................... 2
WELD 116L Introduction to GTAW and Fabrication ......................................................................................... 2
WELD 202 Advanced Blueprint Reading......................................................................................................... 2
WELD 205L Pipe Layout and Welding ............................................................................................................... 2
WELD 206L Advanced GMAW and Fabrication ................................................................................................. 2
WELD 207L Advanced GTAW and Fabrication .................................................................................................. 2
Total ................................................................................................................................................ 28
Optional Courses
WELD 105L Oxyacetylene Brazing/Soldering and Fabrication .......................................................................... 2
WELD 107L Introduction to SMAW Qualifications and Fabrication ................................................................. 2
WELD 117L Qualifications for SMAW and GMAW ......................................................................................... 2
WELD 170 Welding Skills ................................................................................................................................ 3
WELD 171 Advanced Welding Skills ................................................................................................................ 3
WELD 208L Qualifications for GTAW ................................................................................................................. 2
WELD 296 Special Topics............................................................................................................................ 1-6
WELD 297 Special Problems.................................... ............................................................................ Variable

## COURSE DESCRIPTIONS

## Adult Education (non-credit) Courses

## Course Number/Course Name

## BSK 040 - Basic Language Skills

Explores basic reading/writing strategies using phonics, development of sight vocabulary, and collaborative use of materials in themes relevant to students' lives.

## BSK 041 - Basic Language Skills II

Improves developmental phonics, dictionary skills, grammar, response to reading and self-expression.

## BSK 050 - Basic Skills Reading

Analyzes non-fiction and fiction to identify main idea, point of view and organizational patterns. Includes summarizing, drawing conclusions and responding to readings.

## BSK 051 - Reading in Literature and Arts

Focuses on reading and analysis of literature (short stories, poetry, drama and commentary) with multi-cultural themes to improve comprehension and prepare for the literature and arts test of the GED.

## BSK 054 - Reading in Social Studies and Science

Integrates the study of history, behavioral sciences, political science, geography, and economics, with critical reading in a broad spectrum of science disciplines, including an introduction to plant and animal biology, human biology, earth science, chemistry and physics.

## BSK 060 - Math Fundamentals

Reviews the language and basic concepts of math as they relate to addition, subtraction, multiplication and division using whole numbers and decimals.

## BSK 063 - Basic Geometry, Measurement and Algebra Topics

Covers measurement/geometry and fundamental algebra necessary for success on the GED exam and in practical problem solving.

## BSK 064 - Decimals, Fractions and Percentages

Covers decimal counting system, development of problem-solving skills, constructing ratios and proportions to solve word problems; analysis/interpretation of data contained on tables, charts and graphs; and calculation of percentages.

## BSK 071 - Spelling and Grammar

Reviews language mechanics, usage and spelling improvement.

## BSK 074 - Paragraph and Essay Writing

Provides systematic study of the steps in the writing process focusing on sentence structure, grammar, punctuation, syntax and paragraph development, essay structure and organizational methods.

## BSK 080 - Basic Skills Learning Center

Includes individualized study and tutoring in basic skills math, reading and/or writing with access to computer, video and audio programs as well as other instructional materials in the Adult Education Learning Center at Main or Montoya campus.

## BSK 081 - Basic Skills Integrated

Provides comprehensive practice on basic reading, writing and math skills taught both on campus and at community sites to help students prepare for the GED examination or improve competencies. Computer-assisted instruction available in some locations.

## BSK 082 - Spanish GED

Prepares students for the GED exam conducted in Spanish, including instruction in math, writing, grammar and reading. Some English as a second language instruction in mechanics and usage to prepare for the English competency portion of the Spanish GED exam is included.

## Course Number/Course Name

## BSK 082 - GED En Español

Preparación para el examen de GED en español, incluyendo instrución en matemáticas, escritura, gramática, y lectura.
Preparación incluido por el porción del examen que está en inglés.

## ESL 040 - ESL Literacy

Introduces alphabet, phonemic system, basic vocabulary and simple sentences in meaningful, communicative contexts. For students who have had no previous exposure to written or spoken English.

## ESL 050 - ESL Beginning I

Develops English language skills with an emphasis on pronunciation practice, listening comprehension, conversation and basic grammar.

## ESL 051 - ESL Beginning II

Expands students' communication range, which may include listening and reading for meaning, responding to written and oral communication relevant to daily life, and learning grammatical skills and conventions for oral and written English.

## ESL 060 - ESL Intermediate

Focuses on practice in communication skills for everyday life, which may include voicing opinions and responding appropriately in conversations on familiar topics, discussing short reading selections, learning and reviewing grammatical skills and conventions of oral and written English.

## ESL 070 - ESL Advanced

Covers conversation, writing, reading and evaluation of materials and study of advanced grammar in meaningful, communicative contexts.

## ESL 071 - Transitional ESL

Provides study of and practice in communication skills with practical information regarding educational programs and support services. For students who can function comfortably in English and who are ready for the workplace or plan to continue their studies in developmental, vocational or liberal arts classes.

## ESL 081 - ESL Integrated

Presents reading, writing, listening, speaking and grammatical skills through group work, paired practice and self-paced instruction. Comprehensive, community-based classes for students at all levels of English proficiency.

## ESL 085 - Citizenship

Covers basic English, American history and government. For students who have a working knowledge of English and are preparing to become American citizens.

## ESL 082 - ESL Special Topics*

Presents various topics. See Schedule of Classes.

## JLS 040 - Job/Life Skills*

Examines critical life issues- self-esteem, study skills, parenting and job skills - and explores occupational choices and jobplacement services at TVI.

## JLS 041- Computer Literacy for Adult Education

 Introduces computer hardware and terminology, word processing programs and use of the Internet.
## JLS 042- Job Search Skills*

Studies positive presentation techniques through job applications, resumés and interviews; exploration of sources of employment particularly helpful for students transitioning from welfare to work.

* Note: Students may also study on an individual basis at the Main Campus or Montoya Campus Adult Education Learning Centers.


## COURSE DESCRIPTIONS

## Academic (credit) Courses

## Course Number/Course Name <br> Credit Hours

## AA - Administrative Assistant Courses

## AA 101 - Beginning Keyboarding

Develops keyboarding skill by touch method and develops speed and accuracy. A minimum average of 25 wpm on three five-minute timings is required to pass this course. ( 2 theory +3 lab hours a week) Course fee: $\$ 10$

## AA 102 - Keyboard Applications

(Recommended prerequisite: AA 101)
Requires production of business letters, reports and tables and continued development of speed and accuracy. A minimum average speed of 35 wpm on three five-minute timings is required to pass this course. (2 theory +3 lab hours a week) Course fee: $\$ 15$

## AA 105-Keyboard Skill-building

(Recommended prerequisite: AA 101 or 25 wpm typing speed on a five-minute timing)
Focuses on building speed and accuracy for students with various levels of skills. Evaluation is based on individual speed and accuracy improvement. (5 lab hours a week) Course fee: $\$ 10$
AA 107 - Intermediate Keyboard Skill-building 2
(Recommended prerequisite: AA 102 or 35 wpm typing speed on a five-minute timing)
Focuses on building speed and accuracy. A minimum average speed of 45 wpm on three five -minute timings is required to pass this course. (5 lab hours a week) Course fee: $\$ 10$

## AA 112-Office Accounting Procedures

(Prerequisite: ACCT 111)
Focuses on complete bookkeeping cycle, financial statements and payroll. A computerized practice set is completed in this course.

## AA 143 - Word Processing

(Recommended prerequisites: BA 150 and AA 102 or a minimum typing speed of 35 words a minute on a five-minute timing or department approval)
Presents basic and intermediate features for preparing business documents. (2 theory +3 lab hours a week) Course fee: $\$ 15$

## AA 170-Business Telephone Techniques

Applies tape recorded and role playing activities to develop effective speaking, listening and questioning skills. Methods for handling incoming calls, customer orders, customer problems and complaints, outbound calls and sales are presented. ( 5 weeks)

## AA 171 - Working with the Challenging Customer

Presents concepts to enhance student's ability to act effectively when working with the challenging customer for the purpose of promoting customer satisfaction. ( 5 weeks)

## AA 173- Time Management Skills

Presents principles and activities to aid the student in applying time management skills in a personal and professional environment. (5 weeks)

## AA 174 - Computers in the Medical Office

(Recommended prerequisite: BA 150)
Introduces tasks performed in a medical office utilizing computerized software package, including scheduling appointments, gathering and recording patient information, recording diagnoses and procedures, billing patients, filing insurance claims, recording payments and preparing reports. ( 5 weeks; 2 theory +3 lab hours a week) Course fee $\$ 5$

| Course Number/Course Name Credit Hours |
| :--- |
| AA 180 - Work-Site Learning |
| Requires participation in an approved customer service setting to |
| promote practical application of Call Center Operations core |
| curriculum. Work-Site Learning is taken in student's final 5 weeks |
| of the program; the student must acquire a minimum of 50 hours. (5 |
| weeks; 1 theory + 9 lab hours a week) |

AA 200 - Advanced Word Processing 3
(Prerequisite: AA 143; recommended prerequisites: AA 107 or 45 wpm on a five-minute timing, AA 202 or (CIS 150, 151, 155) and CIS 140)
Presents advanced applications for preparing business documents and document integration. (2 theory +3 lab hours a week) Course fee: $\$ 15$
AA 202 - Spreadsheet and Database Management (Recommended prerequisite: BA 150)
Presents Excel and Access to create business documents. (2 theory +3 lab hours a week) Course fee: $\$ 15$ [Formerly offered as Information Processing]
AA 205 - Advanced Keyboard Skill-building
(Recommended prerequisite: AA 107 or 45 wpm typing speed)
Focuses on building speed and accuracy. A minimum average speed of 55 wpm on three five-minute timings is required to pass this course. (5 lab hours a week) Course fee: $\$ 10$

## AA 231 - Business English Applications

(Prerequisite: BA 122 or department approval)
Requires student to compose, transcribe, analyze/edit business documents for correct grammar, punctuation, mechanics and language. Reference materials are used. Course fee: $\$ 10$

## AA 250 - Machine Transcription

(Recommended prerequisites: AA 107, AA 143, BA 122, AA 231)
Develops speed and accuracy in transcribing mailable copy. (2 theory +3 lab hours a week) Course fee: $\$ 15$

AA 260 - Business Procedures
(Prerequisites: AA 143, BA 121; recommended prerequisites: AA 107, BA 122)
Covers office procedures, technology, records management, human relations, ethics, telecommunications and job portfolio. Capstone course should be taken in student's final term.

## AA 270 - Medical Transcription

(Recommended prerequisites: CR 132, AA 107 or 50 wpm typing speed, AA 143, BA 121, AA 231)
Reinforces medical terminology and develop proficiency in transcribing medical reports, forms, and other types of medical communications using correct format, grammar, punctuation, number, abbreviation, symbols and metric measurement rules. (2 theory +3 lab hours a week) Course fee: $\$ 15$
AA 296 - Topics Course
Explores current topics in office technology.
AA 297-Special Problems
Variable
(Prerequisite: department approval)
Requires the student and instructor to define a specific problem in the area of the student's interest and directly related to the program. Student develops and executes a solution using analytical techniques to the problem. An oral presentation may be required.

Course Number/Course Name
Credit Hours
AA 298 - Internship
(Prerequisite: department approval; recommended prerequisites: AA 143, BA 121, 40 wpm for Office Assistant program or 50 wpm for Office Administration program)
Requires a minimum of 150 hours at office-related supervised workstations. If the student is currently employed in area of study, the 150 hours must involve a new learning experience. Students are not paid for their work but are supervised jointly by TVI and the employer. The student and employer determine the weekly contact hours. (1 theory +9 lab hours a week)
AA 299 - Cooperative Education
(Prerequisite: department approval; recommended prerequisites: AA 143, BA 121, 40 wpm for Office Assistant program or 55 wpm for Office Administration program)
Requires a minimum of 150 hours in a new office-related position. If the student is currently employed in area of study, the 150 hours must involve a new learning experience. Student trainees are paid by the cooperating firm and supervised jointly by TVI and the employer. The student and employer determine the weekly contact hours. (1 theory +9 lab hours a week)

## ACCT - Accounting Courses

## ACCT 100 - Introduction to Accounting

Provides students with information about basic accounting cycle. Covers additional topics, such as payroll and taxes, as time permits. Helps students prepare for next-level accounting-related courses. (3 theory hours +1 lab hour a week)

## ACCT 101-Accounting I

(Prerequisites: MATH 099, RDG 099 or equivalent; pre- or corequisite: ACCT 111 or MATH 162 or 180)
Analyzes and records business transactions, implements accrual basis accounting and prepares basic financial statements. Uses of financial information for decision making are covered with emphasis on generally accepted accounting principles. ACCT 101A plus ACCT 101B are equivalent to this course.

## ACCT 101A - Accounting IA

(Prerequisites: MATH 099 or equivalent; RDG 099 or equivalent) (Students going on to ACCT 101B should take ACCT 111 as a corequisite)
Analyzes and records business transactions, implements accrual basis accounting and prepares basic financial statements. This course is the first half of ACCT 101. ACCT 101A plus 101B are equivalent to ACCT 101.

## ACCT 101B - Accounting IB

(Prerequisites: ACCT 101A and 111 or MATH 162 or 180) Presents use of financial information for decision making with emphasis on Generally Accepted Accounting Principles. This course is the second half of ACCT 101. ACCT 101A and 101B are equivalent to ACCT 101.

## ACCT 102 - Accounting II

(Prerequisites: ACCT 101, BA 150)
Presents utilization of accounting information for decision making by management in planning and controlling business activities.
(ACCT 102 and 180 from current catalog are equivalent to ACCT 102 from 1999 and prior catalogs.)

## ACCT 103 - Survey of Accounting for Non-Business Majors

Provides an overview of accounting for non-business majors. Both manual and spreadsheet techniques are employed. Data flow and programming examples of accounting systems are discussed.
(2 theory +3 lab hours a week)

Course Number/Course Name
Credit Hours
ACCT 111 - Business Math
(Prerequisite: MATH 099 or equivalent; this course is a pre- or corequisite for ACCT101)
Applies basic arithmetic operations to business applications and accounting. 10-key touch method skills on the electronic calculators are developed.

## ACCT 150 - VITA Tax Preparation

Introduces basic tax-return preparation issues and the software to do basic tax returns for low-income taxpayers. VITA $=$ Volunteer Income Tax Assistance.

## ACCT 151 - VITA Tax Internship

(Pre- or corequisite: ACCT 150)
Applies current update tax code changes and requires 25-30 hours of volunteer preparation of tax returns for low-income taxpayers during spring term at one of TVI's VITA locations.

## ACCT 157 - Beginning Quickbooks

Covers Quickbooks General Ledger software for small business. The student will record transactions for a service-oriented business and prepare bank reconciliations and end-of-period financial statements. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Formerly offered as BA 157]

## ACCT 158 - Intermediate Quickbooks

(Prerequisite: ACCT 157 or department approval) Expands Quickbooks knowledge to merchandise-oriented businesses. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Formerly offered as BA 159]

## ACCT 159-Advanced Quickbooks

(Prerequisite: ACCT 158 or department approval) Examines advanced topics including payroll transactions and reporting and conversion of existing manual records to Quickbooks. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$

## ACCT 170 - Payroll Accounting

(Recommended prerequisite: ACCT 101)
Covers payroll accounting procedures and controls, tax and employment laws and tax reports that form core of payroll responsibilities.

## ACCT 180-Accounting Applications

(Prerequisites: ACCT 101, BA 150 or department approval) Simulates the complete accounting process via manual and computerized practice sets to expand skill in performance of accounting functions. (ACCT 102 and 180 from current catalog are equivalent to ACCT 102 for 1999 and prior catalogs.)

## ACCT 201 - Intermediate Accounting I

(Prerequisite: ACCT 180 or department approval)
Presents accounting theory, concepts, practical application, use of accounting data as basis for decisions by management, stockholders, creditors and other users of financial statements and accounting reports. Emphasis is on asset side of balance sheet.

## ACCT 202 - Intermediate Accounting II

(Prerequisite: ACCT 201 or department approval)
Presents accounting for current and long-term liabilities, capital stock transactions, dividends, retained earnings and cash flow statements and analysis.
ACCT 240-Tax Accounting I
(Prerequisite: ACCT 101 or 101B or ACCT 150/151 or department approval)
Covers fundamental characteristics of individual federal income taxes.

Course Number/Course Name

## ACCT 241 - Tax Accounting II

(Prerequisite: ACCT 240 or department approval) Covers income tax aspects of corporations, partnerships, subchapter $S$ corporations, fiduciaries, advanced concepts related to individual income taxes, tax planning and estate and gift taxation.
ACCT 254 - Electronic Spreadsheets
(Prerequisite: BA 150 or department approval)
Applies electronic spreadsheets to accounting and business. (2 theory +3 lab hours a week) Course fee: $\$ 15$

## ACCT 255 - Computerized Accounting

(Prerequisite: ACCT 180 or department approval) Employs integrated accounting software for payroll, inventory control, accounts payable, accounts receivable and general ledger functions. ( 2 theory +3 lab hours a week) Course fee: $\$ 15$

## ACCT 256 - Management Database Applications

(Prerequisites: BA 150, CIS 155 and 156 or department approval)
Applies advanced database applications to business.
( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$

## ACCT 260 - Cost Accounting

(Prerequisite: ACCT 102 or department approval)
Covers job order and process costing systems for construction and manufacturing.

## ACCT 270 - Governmental Accounting

(Prerequisite: ACCT 180 or department approval)
Examines fund accounting for governmental entities.
ACCT 271 - Auditing
(Prerequisite: ACCT 102 or department approval; recommended prerequisite: ACCT 201)
Surveys auditing concepts that include audit standards, reports, professional ethics, legal liability, evidence accumulation, audit planning, internal control, transaction cycles, other engagements and operational auditing.

## ACCT 280 - Managerial Accounting

(Prerequisite: ACCT 102 or department approval)
Expands the students ability to use and interpret accounting information for decision making by management in planning and controlling business activities.

## ACCT 296 - Accounting Topics

(Prerequisites: ACCT 101 and 102 or department approval) Explores current topics in accounting.

## ACCT 297 - Special Problems

(Prerequisite: department approval)
Requires the student and instructor to define a specific problem in the area of the student's interest and directly related to the program. Student develops and executes a solution using analytical techniques to the problem. An oral presentation may be required.

## ACCT 298 - Internship

(Prerequisites: ACCT 180 and department approval) Provides students the opportunity to work a minimum of 150 hours in a new job experience in accounting or training-related supervised work stations. Students are not paid for their work but are supervised jointly by TVI and the company. (1 theory +9 lab hours a week)

## ACCT 299 - Cooperative Education

(Prerequisites: ACCT 180 and department approval) Provides students the opportunity to work a minimum of 150 hours in a new job experience in accounting or training-related supervised work. Student trainees are paid by the cooperating firm and supervised jointly by TVI and the employer. (1 theory +9 lab hours a week)

Course Number/Course Name
Credit Hours
ACHR - Air Conditioning, Heating, \& Refrigeration Courses
ACHR 131 - Refrigeration Fundamentals
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Introduces fundamentals of refrigeration, including components, refrigerants and accessories and hands-on competencies. (1 theory + 2.5 lab hours a week $=15$ theory +37.5 lab hours a term)

ACHR 132 - Basic Electricity
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Presents principles of electricity, measurements, safety, wiring procedures, schematics, components of basic circuits and principles and practices in electricity. ( 1 theory +2.5 lab hours a week $=15$ theory +37.5 lab hours a term)

## ACHR 133-Refrigerant Management

(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Stresses accepted practices and procedures of refrigerant handling, containment, safety, leak detection, evacuation, recovery and charging systems. Students take the EPA Universal CFC Certification exam. (1 theory +2.5 lab hours a week $=15$ theory +37.5 lab hours a term)

## ACHR 134 - Motors and Controls

(Pre- or corequisite: ACHR 132 or department approval) Covers primary and control circuits in various applications, troubleshooting and components. Emphasizes attention to motors and starting devices. ( 1 theory +2.5 lab hours a week $=15$ theory + 37.5 lab hours a term)

## ACHR 135 - Refrigeration Applications

(Pre- or corequisite: ACHR 131 or department approval) Covers system design, accessories, performance characteristics and problem diagnosis. ( 1 theory +2.5 lab hours a week $=15$ theory + 37.5 lab hours a term)

## ACHR 136-Control Circuit Applications

(Pre- or corequisite: ACHR 134 or department approval) Stresses electrical schematics, diagrams, troubleshooting of circuits and problem diagnosis. ( 1 theory +2.5 lab hours a week $=15$ theory +37.5 lab hours a term)

## ACHR 137 - Code and Safety Requirements I

(Prerequisites: RDG 099 or equivalent or department approval) Investigates code requirements and safety practices related to refrigeration. Code and safety searches are an integral part of this course.

## ACHR 151 - Air Conditioning

(Prerequisites: ACHR 135, 136 or department approval) Covers installation, service and maintenance of air conditioning and heat pump systems. ( 1 theory +2.5 lab hours a week $=15$ theory +37.5 lab hours a term)

## ACHR 152 - Air Conditioning Control

(Prerequisites: ACHR 135, 136 or department approval) Covers installation, service and maintenance of air conditioning and heat pump systems controls. ( 1 theory +2.5 lab hours a week $=$ 15 theory +37.5 lab hours a term)

## ACHR 153 - Gas Heating Systems

(Prerequisites: ACHR 135, 136 or department approval) Covers installation, service and maintenance of forced fossil fuel furnaces. ( 1 theory +2.5 lab hours a week $=15$ theory +37.5 lab hours a term)

## ACHR 154 - Gas Heating Control Systems

(Prerequisites: ACHR 135, 136 or department approval) Emphasizes forced fossil fuel furnace controls installation and maintenance. ( 1 theory +2.5 lab hours a week $=15$ theory +37.5 lab hours a term)

## ACHR 155-Commercial Refrigeration

(Prerequisites: ACHR 135, 136 or department approval) Covers installation, service and maintenance of reach-in refrigeration systems. (1 theory +2.5 lab hours a week $=15$ theory +37.5 lab hours a term)

## ACHR 156-System Design

Examines air properties, air movement, heat load calculations and water as a secondary refrigerant. $(2$ theory +2.5 lab hours a week $=$ 30 theory +37.5 lab hours a term)

## ACHR 171L - Basic Refrigeration Maintenance

Introduces the types and components of refrigerators and air conditioners in this theory/lab course. Stresses evaporative coolers and preventive maintenance. Develops troubleshooting skills. (1 theory +5 lab hours a week $=15$ theory +75 lab hours a term)

## ACHR 172L - Basic Air Conditioning, Heating and Refrigeration

Introduces basic equipment and service techniques in this theory/ lab course. Emphasizes installation and troubleshooting of parallel compressor systems, energy management systems and preventive maintenance programs. (1 theory +5 lab hours a week $=15$ theory + 75 lab hours a term)

## ACHR 173L - Commercial Refrigeration

Introduces commercial refrigeration and ice machines in this theory/ lab course. Stresses preventive maintenance. Develops simple servicing and troubleshooting skills. ( 1 theory +5 lab hours a week $=$ 15 theory +75 lab hours a term)

## ACHR 210 - Pumps and Valves

(Prerequisites: ACHR 151, 152 and 154 or department approval) Covers the types of valves and pumps used in hydronic systems, the sizing, selection and internal construction, disassembling, assembling and measurement of impellers. ( 1 theory +2.5 lab hours a week $=15$ theory +37.5 lab hours a term)

## ACHR 211 - Basic Hydronic Principles

(Prerequisites: ACHR 151, 152 and 154 or department approval) Covers basic flow, nomenclature, physical principles of typical systems, piping layout and design. Investigates actual operating systems. ( 1 theory +2.5 lab hours a week $=15$ theory +37.5 lab hours a term)

## ACHR 212 - Hot Water and Steam Generation Systems

(Prerequisites: ACHR 210, 211 or department approval) Covers types, design, construction of typical systems, sizing and controls of units. ( 1 theory +2.5 lab hours a week $=15$ theory + 37.5 lab hours a term)

## ACHR 213-Controls I

(Prerequisites: ACHR 210, 211 or department approval) Stresses pneumatic, electronic and electric control systems with computer interfacing. ( 1 theory +2.5 lab hours a week $=15$ theory + 37.5 lab hours a term)

## ACHR 214 - Chilled Water Systems

(Prerequisites: ACHR 210, 211 or department approval) Emphasizes commercial and industrial chilled water systems. (1 theory +2.5 lab hours a week $=15$ theory +37.5 lab hours a term)

Course Number/Course Name
Credit Hours
ACHR 215 - Controls II
(Prerequisite: ACHR 213 or department approval)
Covers advanced building controls using interfaced operating monitor equipment. ( 1 theory +2.5 lab hours a week $=15$ theory + 37.5 lab hours a term)

ACHR 216 - Code and Safety Requirements II
(Prerequisite: ACHR 137 or department approval) Investigates code requirements and safety practices related to refrigeration. Code and safety searches are an integral part of this course.
ACHR 296-Special Topics
(Prerequisite: department approval)
Provides an in-depth study of problems and advanced techniques.
ACHR 297-Special Problems Variable
(Prerequisite: department approval)
Focuses on a specific problem while working with an instructor.
AFAS - Air Force Aerospace Studies Courses
Students may register at TVI for the University of New Mexico Aerospace Studies (Air Force). Uniforms and textbooks are provided. Because these courses are offered at the main campus of UNM, students should contact UNM before enrolling at:

Richard G. Trembley, Lt. Col., USAF
Commander, Aerospace Studies
University of New Mexico
AFROTC Detachment 510
Aerospace Studies Building
1901 Las Lomas NE
(505) 277-4502

## AFAS 120 - The Foundation of the USAF

(Corequisite: AFAS 120L. Concurrent enrollment in leadership laboratory required for cadet status)
Introduces students to the United States Air Force and provides an overview of the basic characteristics, missions, and organization of the USAF. Meets once weekly. Fall only.

## AFAS 120L - Leadership Laboratory

Develops personal leadership and managerial abilities. Examines Air Force customs and courtesies, and requires demonstration of related abilities as well as participation in drill and ceremonies. Emphasizes standards of discipline and conduct. Graded CR/NC. Enrollment in the laboratory is required with AFAS 120 course. Fall only.

## AFAS 121 - The Foundation of the USAF

(Corequisite: AFAS 121L. Concurrent enrollment in leadership laboratory required for cadet status)
Introduces the United States Air Force, providing an overview of the basic characteristics, missions, and organization of the USAF. Meets once weekly. Spring only.
AFAS 121L - Leadership Laboratory
Continues course of study begun in AFAS 120/120L. Graded CR/ NC. Enrollment in the laboratory is required with AFAS 121 course. Spring only.

## AFAS 250 - Evolution of USAF Air \& Space Power

(Corequisite: AFAS 250L. Concurrent enrollment in leadership laboratory required for cadet status)
Introduces topics on Air Force heritage and leaders; introduces air and space power through examination of competencies and functions; and continues application of communication skills. Designed to instill an appreciation of the development and employment of air power and to motivate sophomore students to make transition from AFROTC cade to AFROTC officer candidate. In addition, aspects of the AS 200 course begin to prepare students for field training exercises. Meets once weekly. Fall only.

## AFAS 250L - Leadership Laboratory

Provides application of elements of personal leadership. Provides students an opportunity to demonstrate command and leadership abilities, and knowledge of Air Force operating procedures. Graded CR/NC. Enrollment in the laboratory is required with AFAS 250. Fall only.

## AFAS 251 - Evolution of USAF Air \& Space Power

(Corequisite: AFAS 010. Concurrent enrollment in leadership laboratory required for cadet status)
Introduces topics on Air Force heritage and leaders; introduction to air and space power through examination of competencies and functions; and continued application of communication skills. Course is designed to instill an appreciation of the development and employment of air power and to motivate sophomore students to make transition from AFROTC cadet to AFROTC officer candidate. In addition, aspects of the AS 200 course begin to prepare students for field training exercises. Meets once weekly. Spring only.

## AFAS 251L - Leadership Laboratory

Continues course of study begun in AFAS 250/250L. Graded CR/ NC. Enrollment in the laboratory is required with AFAS 251. Spring only.

## ANTH - Anthropology Courses

## ANTH 101 - Introduction to Anthropology

(Prerequisite: RDG 100)
Surveys the breadth of anthropology, including archaeology, biological anthropology, cultural anthropology, and linguistic anthropology.

## ANTH 110 - Language, Culture \& the Human Animal 3

 (Prerequisite: RDG 100)Introduces concepts and practices of linguistics and anthropology. Study of the systematic nature of language: phonology, morphology, syntax, semantics and pragmatics.

## ANTH 120 - Archaeology: Discovering Our Past

(Prerequisite: RDG 100)
Surveys 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

(Prerequisite: RDG 100)
Surveys basic concepts of cultural anthropology as well as cultural characteristics illustrated by a variety of existing cultures in their native environments with societal examples in cross-cultural comparisons.

## ANTH 150 - Evolutionary Anthropology

(Prerequisite: RDG 100)
Introduces field of biological anthropology and concepts of organic evolution. Emphasizes fossil history of primates, prehistory of man and human genetics within a paleoecological context, modern primate behavior and its relevance to human evolution.

## ANTH 222 - Ancient Mesoamerica

## (Prerequisite: RDG 100)

Traces Mesoamerican archaeology from the earliest inhabitants through the Aztec period. Emphasizes cultural processes and dynamics of cultural evolution.

## ANTH 231 - North American Indians

Presents comparative ethnology of North American Indian tribes on geographic, ecologic and cultural bases, and explores life of North American Indians before European influence and the modern diversity of cultures existing on the North American continent.

Course Number/Course Name
Credit Hours

## ANTH 238 - Cultures of the Southwest

(Prerequisite: RDG 100)
Presents basic concepts related to cultural patterns of the American Southwest from A.D. 1600 to the present and interactions of the ethnic groups that populate the Southwest.
ANTH 255 - Southwestern Archaeology
(Prerequisite: RDG 100)
Presents interpretations and dynamics of southwestern archaeology from the time of the earliest inhabitants until European contact.

## ANTH 265 - The Anthropology of Drugs

## (Prerequisite: RDG 100)

Examines the nature and use of mind-altering drugs from a crosscultural perspective, including study of the varieties and effects of such drugs around the world, socio-cultural contexts and functions of drugs, the social control of drugs, and the political economy of world trade in both licit and illicit drugs.
ANTH 296 - Topics in Anthropology
(Prerequisite: RDG 100)
Presents various topics. See Schedule of Classes.

## ARDR - Architectural Drafting Courses

ARDR 107L - Architectural Drafting I
(Pre- or corequisite: ARDR 109, ARDR 180)
Introduces the fundamentals of architectural graphic representation as the foundation of all $\mathrm{A} / \mathrm{E}$ drafting courses. Explores basic common assembly systems and introduces schedules. (1 theory +9 lab hours a week) Course fee: $\$ 15$. Note: Students must provide their own drafting kits.
ARDR 108 - Architectural Mathematics
(Prerequisite: MATH 100B)
Covers basic concepts of geometry and trigonometry with an emphasis on architectural and engineering applications and calculator use. Students must provide a full-function scientific calculator with a ten-digit display. (2 theory +3 lab hours a week)
ARDR 109 - Building Materials and Methods I
(Prerequisites: ENG 100 and MATH 100B or equivalent) Study construction systems, sub-systems and components. Emphasizes foundations, light wood frame and masonry construction. A construction hard hat is required. (2 theory +3 lab hours a week)

## ARDR 113L - Site Analysis

(Prerequisite: ARDR 180)
Examines analytical factors of site design, such as orientation and view, sound and light intrusions, contours and grading, drainage and foliage. Introduces planning aspects of site size. (5 lab hours a week)
ARDR 115 - Building Materials and Methods II
Continues ARDR 109 with emphasis on steel, concrete, roofing, glazing and cladding systems. (2 theory +3 lab hour a week)
ARDR 119L - Architectural CAD Drafting III
(Prerequisites: ARDR 107L, 115, 213, 214L)
Continues ARDR 107L, students produce design development and representative architectural construction drawings using standard graphic, dimensioning and notation systems. (3 theory +12 lab hours a week) Course fee: $\$ 15$

## ARDR 180 - Fundamentals of Computer-Assisted Drafting

(Prerequisite: CP 176 or equivalent)
Introduces the fundamentals of computer assisted drafting using AutoCAD. (2 theory +3 lab hours a week) Course fee: $\$ 15$

Course Number/Course Name
Credit Hours

## ARDR 181 - Intermediate Computer-Assisted Drafting

(Prerequisite: ARDR 180)
Continue ARDR 180 with an introduction to paper space layouts. Architectural Desktop, 3D concepts, and practical applications to architectural projects are explored. (2 theory +3 lab hours a week) Course fee: \$15

## ARDR 182L - Advanced Computer-Assisted Drafting <br> (Prerequisites: ARDR 213, 214L or ARDR 181)

Introduction to 3rd party CAD software-concepts and applications to 3D solids modeling and rendering. (5 lab hours a week) Course fee: $\$ 15$

## ARDR 183 - Fundamentals of Microstation CAD

(Prerequisite: CP 176 or equivalent)
Introduces the fundamentals of computer-assisted drafting using Intergraph's Microstation CAD. (2 theory +3 lab hours a week) Course fee: \$15

## ARDR 184 - Intermediate Microstation CAD

## (Prerequisite: ARDR 183)

Continues ARDR 183 and Intergraph's Microstation software, topics include user interface development and introduction to threedimensional design. (2 theory +3 lab hours a week) Course fee: $\$ 15$

## ARDR 201 - Structural Systems Analysis

(Prerequisite: ARDR 119L; corequisite: ARDR 203L)
Introduces structural design and graphics in wood, steel and concrete and elementary beam design problems. (4 theory +1 lab hour a week)

## ARDR 203L - Structural Systems CAD Drafting

(Prerequisite: ARDR 119L; corequisite: ARDR 201)
Develop representative structural engineering drawings in steel, concrete and/or wood structural systems. (1 theory +12 lab hours a week) Course fee: $\$ 15$

## ARDR 208L - Architectural Design

(Prerequisite: ARDR 107L)
Presents design principles, theories, methods and process. Facilitates learning through a student designed residential project and development of conceptual design drawings. (5 lab hours a week) Course fee: $\$ 15$

## ARDR 212L - Mechanical/Electrical Systems CAD Drafting

(Prerequisite: ARDR 119L; corequisite: ARDR 215)
Review of conventional drafting methods of mechanical and electrical systems including overlaying electrical, heating, ventilation and plumbing systems on architectural views. Develop engineering drawings using engineering graphic skills. (1 theory + 12 lab hours a week) Course fee: $\$ 15$
ARDR 213 - CAD Analysis
(Corequisite: ARDR 214L)
Applies beginning to advanced CAD concepts and commands to the production and coordination of A/E construction drawings. (4 theory +1 lab hour a week)

## ARDR 214L - Architectural CAD Drafting II

(Prerequisite: ARDR 180; corequisite: ARDR 213)
Develop representative construction drawings using CAD software commonly employed in the A/E industry. (3 theory +12 lab hours a week) Course fee: $\$ 15$

Course Number/Course Name
Credit Hours

## ARDR 215 - Mechanical/Electrical Systems Analysis

(Prerequisite: ARDR 119L; corequisite: ARDR 212L)
Study general theory and layout information and code requirements for non-residential systems. Includes lighting, plumbing and air conditioning. (4 theory +1 lab hour a week)

## ARDR 221L - Architectural/Engineering Drafting Seminar

(Pre- or corequisites: ARDR 119L, 182L)
Develop a resume and present a cumulative portfolio to a review committee. Examines needs, requirements, personnel procedures, expectations of employers and trends of the professional community. Is taken in the student's last semester. (3 lab hours a week)

## ARDR 275 - Design Applications for Interiors

## (Prerequisite: ENG 100 or equivalent

Introduces basic color systems and psychology, light and lighting, space planning, code applications of finish selections, fabrics and furniture styles. (2 theory +3 lab hours a week)

## ARDR 296-Topics

(Prerequisite: permission of program chair)
Topics offered depend on requests from the community and available instructors.

## ARDR 297-Special Problems

(Prerequisite: permission of program chair)
The student and instructor define a specific problem in the area of the student's interest and directly related to the program. The student develops and executes a solution using analytical and drafting techniques. An oral presentation may be required.

## ARDR 298 - Internship

(Prerequisite: permission of program chair)
In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate, defined training program. The position is not paid.
ARDR 299-Cooperative Education
(Prerequisite: permission of program chair)
In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate, defined training program. The position is paid.

## ART - Art Courses

ART 101 - Introduction to Art
Presents fundamental concepts of visual arts: the language of form and media of artistic expression. Possible museum exhibition attendance.

ART 106 - Drawing I
(Recommended: ART 101)
Explores basic drawing concepts with dry and wet media: still life, landscape, portraiture and drawing the figure/the nude figure.
Course fee: $\$ 25$.

## ART 121 - Two-Dimensional Design

(Recommended: ART 101 and ART 106)
Emphasizes visual awareness through direct experience with visual form: elements of line, shape, value, texture, color theory, space and volume, painting principles and visual vocabulary. Course fee: $\$ 25$.

## ART 122 - Three-Dimensional Design

(Prerequisite: ART 106 and ART 121)
Presents concepts, techniques, processes and vocabulary involved in working in the third dimension and emphasizes a variety of media and issues of space, form, mass and volume, line, texture, scale, proportion and the making of objects and spatial contexts. Course fee: \$25.

Surveys pre-historic, Near Eastern, Egyptian, Greek, Roman, early Christian, Byzantine, Romanesque and Gothic art and architecture. Fall, summer only.

## ART 202 - History of Art II

Surveys Italian and Northern Renaissance, Baroque, Rococo and $19^{\text {th }}$ century Western European painting, sculpture and architecture, and includes some early $20^{\text {th }}$ century European as well as Oriental and American art. Spring, summer only.

## ART 205 - Drawing II

(Prerequisite: Art 106)
Continues course of study initiated in ART 106, offering further concentration on basic drawing concepts with greater emphasis on descriptive and perceptual drawing skills using wet and dry media and color. Assigned problems explore aspects of experimental drawing, media and contemporary concerns, still life, landscape, portraiture, and the figure in environmental contexts and in motion. Course fee: $\$ 25$.

## ART 207 - Painting I

(Prerequisites: ART 106 and ART 121)
Explores the tradition of paint as a medium for artistic expression. Focuses on materials/media, tools, techniques, history and concepts of painting. Course fee: $\$ 25$.

## ART 250 - Modern Art

Surveys major figures, movements, and stylistic developments in western art from 1850 to the present.

## ART 251 - Art of the American Southwest

Presents interrelationships of three southwestern cultures emphasizing major forms of expression in pottery, textiles, jewelry, architecture, painting, and photography.

## ART 260-Architectural History: Ancient through Modern

Surveys the history of Western architecture from the pyramid to the post-modernist house; technological, stylistic, and functional characteristics of monuments within their cultural contexts.

## ART 296 - Topics in Art

(Prerequisites may vary)
Presents various topics. See Schedule of Classes.

## ASTR - Astronomy Courses

## ASTR 101 - Introduction to Astronomy I

(Prerequisite: RDG 100. Recommended: Math 100B) Introduces the science of astronomy, focusing on the solar system including the sun, planets, comets, and meteors.

## ASTR 102 - Introduction to Astronomy II

## (Prerequisites: RDG 100 and Math 100B)

Explores life cycles of stars and stellar systems and the structure of the universe. Focuses on the births, lives, and deaths of stars; the nature of the Milky Way galaxy, and current concepts on cosmology and the large-scale structure of the universe.

## ASTR 111L - Astronomy Laboratory

(Pre - or Corequisite: ASTR 102)
Investigates in optional laboratory setting the principles discussed in ASTR 102. Course fee: $\$ 20$.

## ASTR 296 - Topics in Astronomy

Presents various topics. See Schedule of Classes.

Course Number/Course Name
Credit Hours

## AUTC - Automotive Technology Courses

## AUTC 121L - Brake Systems <br> (Prerequisites: RDG 099, MATH 099 or equivalent or department

 approval)Covers the principles of hydraulic brake operation and practical skills of diagnosis and repair of standard and anti-lock brakes. Includes lab activities on brake bleeding and adjustment, drum and rotor machining, master cylinder overhaul and brake caliper repair. (2 theory +5 lab hours a week $=30$ theory +75 lab hours a term)
AUTC 122L - Suspension and Alignment 4
(Prerequisites: RDG 099, MATH 099 or equivalent or department approval)
Covers system repairs and adjustments on a variety of modern automobile suspension types. Includes strut replacement, wheel alignment and tire balancing, steering gear repair, and rebuilding of common suspension components. ( 2 theory +5 lab hours a week $=$ 30 theory +75 lab hours a term)
AUTC 123L - Manual Transmissions
4
(Prerequisites: RDG 099, MATH 099 or equivalent or department approval)
Introduces fundamentals of design and operation of front and rear drive manual transmissions, differentials and drive line components. Activities include disassembly, measurement, inspection and reassembly of various transmissions in the car and on the bench. (2 theory +6 lab hours a week $=30$ theory +90 lab hours a term).

## AUTC 126L - Automotive Electrical <br> 4 <br> (Prerequisites: RDG 099, MATH 099 or equivalent or department approval) <br> Presents critical troubleshooting skills necessary for identifying and correcting problems found in automotive electrical/electronic systems. Includes DVOM and analog meter use, voltage drop testing, wiring schematic interpretation and electrical diagnostic routines. ( 2 theory +5 lab hours a week $=30$ theory +75 lab hours a term)

AUTC 131L - Engine Repair 4
(Prerequisites: RDG 099, MATH 099 or equivalent or department approval)
Covers internal combustion engine theory, engine overhaul procedures and precision tool measuring. Includes practice of essential engine testing skills and identification of needed repairs along with removal/replacement of engines. ( 2 theory +6 lab hours a week $=30$ theory +90 lab hours a term)
AUTC 132L - Automatic Transmissions
(Prerequisites: AUTC 126L, RDG 099, MATH 099 or equivalent or department approval)
Introduces the fundamentals of design and operation of automatic transmissions and transaxles, servicing, and proper repair procedures. Including performing pump, clutch repair, valve body overhaul, and gear replacement on a variety of transmissions are covered. ( 2 theory +6 lab hours a week $=30$ theory +90 lab hours a term)

## AUTC 133L - Automotive Electronics

(Prerequisite: AUTC 126L or department approval) Builds on lessons in AUTC 126L. Covers testing and diagnostic skills in more complex automotive electronic systems. Includes lighting circuits, body computers and sensors, use of lab scopes and scan tools and supplemental restraint systems. (2 theory +5 lab hours a week $=30$ theory +75 lab hours a term)

## AUTC 134L - Air Conditioning and Heating

(Prerequisite: AUTC 126L or department approval) Covers testing, evacuating, and charging air conditioning systems while maintaining an awareness of potential environmental concerns caused by automotive refrigerants as well as cooling and
heating diagnosis, climate control trouble shooting, and component repair. (1 theory +5 lab hours a week $=15$ theory +75 lab hours a term)

## AUTC 170 - Transportation Trades Machining

Introduces the practices of basic machining as they relate to gasoline and diesel engines, safety, proper use of hand and special tools, how to set up and use the lathe, mill and drill press. (1 theory +5 lab hours a week $=15$ theory +75 lab hours a term)

## AUTC 172 - Air Care Inspector

Covers the procedures for becoming a certified air care inspector for the City of Albuquerque Vehicle Pollution Management program along with city and federal regulations governing air pollution and emissions inspections.
(7.5 theory +30 lab hours a term)

AUTC 174L - Alternative Fuels
(Prerequisites: AUTC 221L, 222L, 223L or equivalent or ASE certification in engine performance)
Introduces diagnosis, repair and conversions for compressed natural gas (CNG) and liquefied petroleum gas (LPG) fueled light and medium vehicles. Includes personal and environmental safety, LPG/ CNG fuel handling and air/fuel management. (1 theory +2.5 lab hours a week $=15$ theory +37.5 lab hours a term)

## AUTC 175L - Service Fundamentals

Introduces essential shop skills including safety, tool identification and use, under-car and under-hood servicing, repair information retrieval, and proper use and care of equipment. Students perform basic service operations to prepare basic service technicians. (2 theory +5 lab hours a week $=30$ theory +75 lab hours a term)

## AUTC 221L - Engine Performance I

(Prerequisites: AUTC 126L, 133L or department approval) Covers basic fuel and ignition systems along with early emission systems. Structured lab activities permit in-depth analysis of how these systems affect driveability. Skills are developed in performance testing, diagnosis, and repair of engine systems. (2 theory + 5 lab hours a week $=30$ theory +75 lab hours a term)

## AUTC 222L - Engine Performance II

(Prerequisite: AUTC $221 L$ or department approval) Examines fuel, ignition and emission devices in early generation computer controlled systems. Diagnostic skills and repair methods include throttle body fuel injection, electronic feedback carburetors and distributor ignition (DI). ( 2 theory +6 lab hours a week $=30$ theory +90 lab hours a term)

## AUTC 223L - Engine Performance III

(Prerequisite: AUTC 222L or department approval) Presents current production automobile and light truck computerized engine management systems. Includes operation, trouble code analysis, diagnostic routines and proper repair procedures for electronic ignition (EI), port fuel injection, and emission devices. ( 2 theory +5 lab hours a week $=30$ theory +75 lab hours a term )

## AUTC 296-Special Topics

(Prerequisite: department approval)
Presents various problems and current automotive subjects.

## AUTC 297-Special Problems

Variable

## (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

Course Number/Course Name
Credit Hours

## BA - Business Administration Courses

## BA 101 - Introduction to Quality Management <br> 1

Presents concepts and theories of quality improvement. ( 5 weeks)

## BA 102 - Fundamentals of Continuous 1 Quality Improvement (CQI)

Focuses on data gathering for process improvement and organizational culture change. ( 5 weeks)

## BA 103-Quality Tools

Examines the tools and techniques such as the cause and effect diagram, brainstorming, control charts and Pareto diagrams. ( 5 weeks)

## BA 104 - Team Building for Quality

Presents group process as it applies to team building. ( 5 weeks)
BA 105 - Re-engineering for Quality 1
Integrates tools and techniques to formulate action plans for process improvements. ( 5 weeks)

## BA 106 - Quality Leadership

Focuses on mission statement, goals and strategies to implement quality leadership throughout an organization. ( 5 weeks)

## BA 113 - Introduction to Business

## (Prerequisite: RDG 099 or equivalent)

Presents an overall integrated picture of business and its operations. Topics include: forms of business ownership, management, internal organization, production, personnel, labor relations, marketing, short- and long-term finance, insurance, etc.

## BA 117 - Character Counts

Introduces the six pillars of Character Counts, Aspen Declaration and decision-making models. ( 5 weeks)

## BA 118 - Character Counts in the Workplace

Focuses on the applications of the six pillars of character to the workplace. ( 5 weeks)

## BA 119 - Character Counts and

 the Decision-making ModelExamines Character Counts decision-making model applications. ( 5 weeks)

## BA 121 - Business English

(Prerequisites: RDG 099 or equivalent and ENG 099 or equivalent)
Focuses on the principles of effective written communication in the business environment. Emphasizes correct grammar, punctuation, sentence structure and vocabulary.
BA 122 - Business Writing
(Prerequisite: BA 121 or department approval; 25 wpm typing skill recommended)
Builds on principles presented in BA 121 and integrates those principles in composing effective business letters, memos and reports; develop oral presentation skills.

## BA 131 - Business Interpersonal Skills

Focuses on developing interpersonal skills appropriate for the business environment. A unit covering team building/teamwork is required. Students participate in designing course content from the following topics: Time Management, Stress Management, Assertiveness, Goal Setting, Diversity in the Workplace, Self Esteem, Conflict Resolution, Problem Solving, Listening Skills, and Harassment. ( 7.5 weeks)

Course Number/Course Name
Credit Hours
BA 133 - Principles of Management
(Prerequisite: RDG 099 or equivalent)
Introduces the basic theory of organization and includes the management functions of planning, organizing, staffing, directing and controlling, human relations, group process, problem solving, team building and leadership skills.

## BA 150-Introduction to Computers

(Recommended prerequisite: 25 wpm typing skill)
Introduces fundamental computer literacy, which includes computer hardware and software with lecture and hands-on instruction.
Computer applications include operating systems, word processing, spreadsheets, databases, e-mail and the Web. Course fee: $\$ 15$

## BA 211 - Business Law

(Prerequisites: RDG 099 or equivalent and ENG 099 or equivalent)
Presents an introduction to law with business applications. Principle areas of concentration include contract law, Uniform Commercial Code, negotiable instruments and alternative dispute resolutions.

## BA 215 - Money and Banking

(Prerequisite: ACCT 102 or ACCT 102B)
Examines the history, nature and function of money, methods of institutional control and theories of monetary policy.

## BA 222 - Principles of Marketing

(Recommended prerequisite: BA 113 or BA 133)
Introduces the methods, policies and organization involved in the exchange of goods and services between producers and consumers. Topics include the social, economic and legal environments in which marketing operates, consumer behavior, marketing research, market segmentation and targeting, strategic marketing, product planning, pricing, promotion, and distribution.

## BA 230-Employment Law for Business

Presents law and employment decisions from a managerial perspective. Areas covered include the employment relationship, discrimination in employment, the employment environment and other forms of regulation such as labor law and the Fair Labor Standards Act.

## BA 233-Organizational Behavior

(Prerequisite: BA 133 recommended or department approval) Covers the fundamentals of human behavior within business organizations, organizational relationships and communication processes that affect motivation and human behavior.

## BA 236 - Human Resource Development

(Prerequisite: BA 133 or BA 233 or department approval) Focuses on the role of human resource management in relation to organizational requirements. Topics include human resource management, employee staffing, compensation and benefits, labor relations, E.E.O., affirmative action, training and development and other related topics.

## BA 251 - Retail Management

(Pre- or co-requisite: BA 222 or department approval)
Focuses on the changing demographics of retail marketing, the growth of new retail formats and the use of information technology to enable quick response to market dynamics through customer service, vendor-retailer partnering and employee diversity.

## BA 252 - Customer Relations

Focuses on the relationship of self to customers, problem solving and communicating with customers, understanding customers, anticipating customers' needs and offering assistance.

Course Number/Course Name
Credit Hours
BA 253 - Retailing
Covers planning, environmental factors, customers, competitors, channels of distribution, the legal system, and store location. Retail operations such as financing, buying, pricing, promotion, advertising, selling, store layout and retail administration are presented.

## BA 255 - Supervision

(Prerequisite: BA 113 or 133 or department approval)
Focuses on the fundamental elements of supervision and the different supervisory roles. Planning and control, organizing, staffing and employee development, motivating individual and group performance and coping with workplace dynamics are covered.

## BA 260 - Purchasing

(Prerequisites: ACCT 101, ACCT 101B or department approval) Focuses on public and private sector purchasing, value analysis, solicitation process, negotiation techniques, vendor selection, purchasing law, transportation considerations and inventory control practices.

## BA 270 - Real Estate Law

3
Focuses on the fiduciary relationship between real estate agent and client, ownership rights, law of agency and law of contracts. Course has been certified to earn 30 hours of credit toward the New Mexico Real Estate License Exam.

## BA 271 - Real Estate Practice

3
(Pre- or corequisite: BA 270)
Covers the real estate market, real property ownership and interest, deeds and descriptions, property transfer, contracts, finance and appraising. Course has been certified to earn 30 hours of credit toward the New Mexico Real Estate License Exam.

## BA 272 - Real Estate Appraisal

(Prerequisite: BA 271 or department approval)
Methods for estimating the value of real property that includes real estate appraisal techniques of both land and improved residential property.
BA 273 - Real Estate Finance
(Prerequisite: BA 271)
Focuses on financing real property, money markets, and sources of mortgage money, financial leverage, value of existing mortgage in the current market and purchaser qualification.
BA 274 - Real Estate Investment
(Prerequisites: BA 270, BA 271)
Introduces the principles for investment decisions, assessment of property potential and an awareness of the marketplace and the needs of the public.

## BA 275 - Property Management

Explores residential and commercial property management, marketing of services, market analysis, record-keeping, related laws, legal documents, property maintenance, employee relations, insurance, security and administration.

## BA 276 - New Mexico Real Estate Commission

Presents new legislation, NMREC problem areas, disciplinary hearings, rules and regulations, trust accounts, property management review, risk management, selected court cases, fiduciary responsibility, Real Estate Settlement Procedures Act, Americans with Disabilities Act and the Fair Housing Act. (5 weeks)

## BA 279 - Uniform Standards of Professional Appraisal Practice

Focuses on the requirements for ethical behavior and competent performance by appraisers. ( 7.5 weeks)

Course Number/Course Name
Credit Hours

## BA 280 - Fair Housing Law

Focuses on issues, regulations, practices and court cases related to fair housing. ( 5 weeks)

## BA 281 - Americans with Disabilities Act and Related Handicap Discrimination Law

Focuses on issues and guidelines affecting employment, construction and operation of business. (5 weeks)

## BA 282 - Appraising the Single Family Residence

## (Prerequisite: BA 272)

Explores the techniques used to estimate the market value of singlefamily residential property.

## BA 283 - Rules \& Regulations of the New Mexico Real Estate Commission

Examines the current rules and regulations including the intent and the Real Estate Commission's interpretations. ( 5 weeks)

## BA 284 - Sales

(Prerequisite: RDG 099 or equivalent)
Covers the principles and techniques of personal selling as a form of persuasive communication basic to business and other types of interpersonal relationships. Sales principles, demonstrating selling skills and promoting goods and services are emphasized. Each student presents sales presentations.

## BA 285 - Broker Basics

(Prerequisites: BA 270 and 271 or department approval) Covers the establishment of a real estate office, agency relationships and law, signage, brokers' duties, trade names, listing and purchasing agreements, common forms, property management and trusteeship/trust accounts. Required course for the New Mexico State Real Estate Brokers Exam.

## BA 286 - Advertising

(Prerequisite: BA 222 or department approval) Covers the history of advertising media available today, the psychological approach to consumer persuasion, the techniques used in media selection and the creative processes of advertising. Students develop an advertising plan, select and schedule media, create budgets, design and produce advertisements and evaluate advertising effectiveness.

## BA 289-Strategic Planning

Examines strategic planning as a tool for management to provide overall direction for organizations, interpretation of plans, gap analysis, organizational culture, value classification and strategic management in a global environment adapting to cultural differences.

## BA 295 - Capstone Course

Focuses on making the transitional step from the academic to the working world. Skills needed to be a successful manager are emphasized.

## BA 296 - Business Topics

Explores current topics in business.

## BA 297-Special Problems

Variable
(Prerequisite: department approval)
Requires the student and instructor to define a specific problem in the area of the student's interest and directly related to the program. Student develops and executes a solution using analytical techniques to the problem. An oral presentation may be required.

## BA 298 - Internship

## (Prerequisite: department approval)

Requires a minimum of 150 hours at a business or training-related supervised workstation. If the student is currently employed in area of study, the 150 hours must involve a new learning experience. Students are not paid for their work but are supervised jointly by TVI and the company. (1 theory +9 lab hours a week)

## Course Number/Course Name

Credit Hours

## BA 299-Cooperative Education

## (Prerequisite: department approval)

Requires a minimum of 150 hours at a business or training-related supervised workstation. If the student is currently employed in area of study, the 150 hours must involve a new learning experience. Student trainees are paid by the cooperating firm and supervised jointly by TVI and the employer. (1 theory +9 lab hours a week)

## BA 299A Cooperative Education I

Requires a minimum of 40 hours to qualify for credit. Students employed in an ongoing governmental or non-governmental cooperative program enroll in this course for the first term of employment. Students are paid by the employers and are supervised jointly by TVI and the employer. (3 lab hours a week)

## BA 299B Cooperative Education II <br> (Prerequisite: BA 299A) <br> Builds on experiences attained in BA 299A for students in their second term of cooperative education. (3 lab hours a week)

## BA 299C Cooperative Education III

## (Prerequisite: BA 299B)

Builds on experiences attained in BA 299A and BA 299B for students in their third term of cooperative education.
(3 lab hours a week)

## BA 299D Cooperative Education IV

(Prerequisite: BA 299C)
Builds on experiences attained in BA 299A, BA 299B and BA 299C for students in their fourth term of cooperative education. (3 lab hours a week)

## BANK - Banking Courses

## BANK 101 - Principles of Banking

Surveys major aspects of banking from the fundamentals of negotiable instruments to contemporary issues.

## BANK 103 - Law and Banking Principles

Presents a banker's guide to law and legal issues with emphasis on the Uniform Commercial Code.

## BANK 105 - Consumer Lending

(Recommended prerequisite: BANK 101)
Covers regulations governing credit practices, loan processing, cross-selling and collections.
BANK 107 - Analyzing Financial Statements
(Prerequisite: ACCT 101A or ACCT 101) Introduces financial analysis and skills needed to assess a borrower's ability to repay loans.

## BANK 109 - Bank Accounting

(Recommended prerequisite: ACCT 101A or ACCT 101) Describes accounting and reporting system specifically for commercial banks in the context of their special reporting requirements. ( 5 weeks)
BANK 111 - Personal Financial Management
Focuses on budgeting and planning concepts on a personal level for eventual use in business situations. ( 5 weeks)

## BANK 115 - Commercial Lending

(Recommended prerequisite: BANK 101)
Covers technical side of commercial lending and important human relations skills.

BANK 296 - Financial Services Topics
1-3
Explores current topics in financial services.

Course Number/Course Name
Credit Hours
BANK 297 - Special Problems
Variable
(Prerequisite: department approval)
Requires student and instructor to define a specific problem in the area of the student's interest and directly related to the program. Student develops and executes a solution using analytical techniques to the problem. An oral presentation may be required.

## BANK 298 - Internship

(Prerequisites: ACCT 101 or ACCT 101B and BANK 101 or department approval)
Provides students the opportunity to work a minimum of 150 hours in a new job experience in banking or training-related supervised workstations. Student trainees are not paid for their work but are supervised jointly by TVI and the employer. (1 theory +9 lab hours a week)

## BANK 299 - Cooperative Education

(Prerequisites: ACCT 101 or ACCT 101B and BANK 101 or department approval)
Provides students the opportunity to work a minimum of 150 hours in a new job experience in banking or training-related supervised workstations. Student trainees are paid by the cooperating firm and supervised jointly by TVI and the employer. ( 1 theory +9 lab hours a week)

## BGC - Business Graphics Courses

BGC 200 - Digital Publishing
(Recommended prerequisite: BA 150)
Focuses on desktop publishing for print and Web, covers PostScript workflows, typography, printing and design history, plus basic design principles using PageMaker, QuarkXPress, FreeHand, Illustrator, PhotoShop and more. (2 theory +3 lab hours a week) Course fee: $\$ 15$

## BGC 201 - Advanced Digital Publishing

(Pre- or corequisite: BGC 200 or department approval; recommended prerequisite: CIS 255)
Presents advanced concepts and production techniques for digital publishing for print and Web covering PDF workflow, practical graphic design techniques, link management and real world production. (2 theory + 3 lab hours a week) Course fee: $\$ 15$

## BGC 202 - Digital Drawing

(Pre- or corequisite: BGC 200 or department approval) Builds on advanced training in the design and production of printable artwork is offered in FreeHand and Illustrator. The focus is on production techniques for print and Web. (2 theory +3 lab hours a week) Course fee: $\$ 15$

## BGC 203 - Production Photoshop

(Pre- or corequisite: BGC 200 or department approval; recommended prerequisite: CIS 262)
Focuses on design, artwork, halftones, duotones and separations in PhotoShop are presented. An introduction to Painter is optional. (2 theory +3 lab hours a week) Course fee: $\$ 15$

## BGC 204 - Digital Printing Production

(Pre- or corequisites: BGC 202, BGC 203, or department approval)
Covers top end print production in a pure PostScript environment, utilizing a PDF workflow where possible. Preflight, image production, trapping and imposition are presented. (2 theory +3 lab hours a week) Course fee: $\$ 15$
BGC 296 - Topics Course 1-3
Explores current topics in business graphics and communication.

Course Number/Course Name
Credit Hours

## BGC 297 - Special Problems

Variable
(Prerequisite: department approval)
Allows student and instructor to define a specific problem in the area of the student's interest and directly related to the program. Student develops and executes a solution using analytical techniques to the problem. An oral presentation may be required.

## BGC 298 - Internship

(Prerequisites: BGC 201, 202, 203 and department approval) Provides students the opportunity to work a minimum of 150 hours at office-related supervised workstations. Students are not paid for their work but are supervised jointly by TVI and the employer. The student and employer determine the weekly contact hours. (1 theory +9 lab hours a week)
BGC 299 - Cooperative Education
(Prerequisites: BGC 201, 202, 203 and department approval) Provides students the opportunity to work a minimum of 150 hours in a new office-related position. Student trainees are paid by the cooperating firm and supervised jointly by TVI and the employer. The student and employer determine the weekly contact hours. (1 theory +9 lab hours a week)

## BIO - Biology Courses

## BIO 100 - Introduction to Biology

(Prerequisites: MATH 099 and RDG 099)
Explores basic concepts through taxonomy, anatomy, cells, and tissues, while developing a sense of scale, microscope skill, observation, and diagramming. Complements, but does not replace, CHEM 100. (3 theory hours + 1 lab hour a week)

## BIO 110 - Biology for Non-Majors

## (Prerequisite: RDG 100)

Emphasizes biological principles and current topics for nonbiologists or liberal arts students: cellular and molecular biology, microbiology, human genetics, ecology, complexity theory, and animal behavior.

## BIO 111 - Environmental Science

(Prerequisite: RDG 100)
Presents an academic study of the environment, including basic ecology, a comparison of scientific approaches and world views with respect to ecology and the environment, relationship of humans to the environment, and solutions to local, regional, and global environmental problems.
BIO 111L - Environmental Science Laboratory

## (Prerequisite: RDG 100)

Investigates in optional laboratory setting the principles discussed in BIO 111; emphasizes analysis of water, soil and air pollutants. Moderately strenuous field trips to special interest sites may be scheduled outside regular laboratory hours. Course fee: $\$ 20$.

## BIO 112L - Biology for Non-Majors Laboratory

(Prerequisite: RDG 100. Pre- or corequisite: BIO 110)
Provides in optional laboratory setting the use of microscopes, culturing bacteria, chemical analysis of biomolecules, plant and animal behavior. Course fee: $\$ 20$.

[^6]BIO 122/122L - Principles of Biology II
(Prerequisite: BIO 121/121L)
Continues study of the concepts developed in BIO 121/121L, including organism-level processes: taxonomy, comparative anatomy and physiology of plants and animals with emphases on evolutionary trends, embryology, behavior and ecology, and the development of scientific reasoning with an evolutionary perspective. Required enrollment in a 3-hour lecture and a 3-hour lab. Course fee: $\$ 20$.
BIO 123-Biology for Health Sciences
(Prerequisite: RDG 100. Recommended: MATH 100B and either CHEM 111, BIO 100 or SCIE 100)
Presents principles of cell biology, cell chemistry, genetics, and organismic biology with an emphasis on human systems.
BIO 124L - Biology for Health Sciences Laboratory
(Pre- or corequisite: BIO 123)
Introduces exercises and demonstrations related to cell biology, biochemical processes and genetics.

## BIO 136 - Human Anatomy and Physiology for Non-Majors

(Prerequisite: RDG 100. Recommended: BIO 100 or CHEM 100) Examines the structure (anatomy) and function (physiology) of the human body. Investigates molecular, cellular, tissue and organ levels, and study of organ systems.

## BIO 139L - Human Anatomy and Physiology for Non Majors (Laboratory)

(Pre- or corequisite: BIO 136)
Introduces lab exercises which complement concepts presented in BIO 136, including histological study, biochemical processes, mammal organ dissections, and use of models to illustrate anatomical arrangement. Course fee: $\$ 20$.

## BIO 219 - Principles of Cell Biology

(Prerequisites: BIO 121/121L and 122/122L and either CHEM 111/112L or 121/121L)
Focuses on cell structure and cellular processes, including structure and function of membranes, the cytoskeleton, the nucleus, DNA replication, gene expression, energy usage and production, metabolism, cell receptors, intercellular communication, and cancer biology. Fall only.

## BIO 221 - Introductory Genetics

(Prerequisite: BIO 123/124L or 121/121L or permission of instructor. Corequisite: BIO 222)
Emphasizes structure, function, and transmission of hereditary factors. Fall, spring only.

## BIO 222 - Introductory Genetics Problems

(Corequisite: BIO 221)
Introduces recitation and problem-solving techniques in genetic analysis related to BIO 221. CR/NC only. Fall, spring only.

## BIO 223L - Introductory Genetics Laboratory

(Pre- or corequisites: BIO 221 and 222)
Introduces lab exercises using fruit flies and lower organisms to illustrate the principles introduced in BIO 221. Course fee: $\$ 20$. Fall, spring only.

## BIO 224/224L - Southwestern Natural History

(Prerequisite: RDG 100)
Presents in lecture and labs or field trips (one or more overnight) the natural history and identification of southwestern flora and fauna. Required enrollment in a 3-hour lecture and a 3-hour lab. Course fee: $\$ 20$. Summer, fall only.

Course Number/Course Name
Credit Hours
BIO 237 - Human Anatomy \& Physiology I
3
(Prerequisites: Either BIO 123/124L or 121/121L and either CHEM 111/112L or 121/121L)
Presents integrated study of human structure and function covering the integumentary, skeletal, muscular, and nervous systems.

## BIO 238 - Human Anatomy and Physiology II

## (Prerequisite: BIO 237)

Continues course of study begun in BIO 237, covering structure and function of the cardiovascular, respiratory, digestive, urinary, reproductive, and endocrine systems.
BIO 239 - Microbiology
(Prerequisites: Either BIO 123/124L or BIO 121/121L and either CHEM 111/112L or 121/121L. Corequisite: BIO 239L)
Introduces concepts of microbiology, host-parasite relationships, infection, and immunity.

## BIO 239L - Microbiology Laboratory

(Prerequisites: BIO 115L taken prior to Summer 1993 or either BIO 123/124L or 121/121L and either CHEM 111/112L or 121/ 121L. Corequisite: BIO 239)
Investigates a variety of techniques designed to facilitate the growth, identification, and control of microorganisms. Course fee: $\$ 20$.

## BIO 240 - Pathophysiology I

(Prerequisites: BIO 237, 238, 239, 239L)
Introduces human pathophysiology. Fall only.
BIO 241 - Pathophysiology II
(Prerequisite: Successful completion of BIO 240)
Continues course of study begun in BIO 240 . Spring only.

## BIO 247L - Human Anatomy and

 Physiology I Laboratory(Prerequisites: Either BIO 123/124L or 121/121L and either CHEM 111/112L or 121/121L. Pre- or corequisite: BIO 237) Introduces lab exercises in anatomy and physiology which complement topics covered in BIO 237, including specimen dissection and cadaver study. Course fee: $\$ 20$.

## BIO 248L - Human Anatomy and Physiology II Laboratory

(Prerequisites: Either BIO 123/124L or 121/121L and either CHEM 111/112L or 121/121L. Pre- or corequisite: BIO 238) Provides lab exercises in anatomy and physiology which complement BIO 238, including specimen dissection and cadaver study. Course fee: $\$ 20$.
BIO 260/260L - Botany
(Prerequisite: BIO 122/122L)
Introduces the diversity of the plant kingdom: Algae, Bryophyta, Pterophyta, Gymnosperms, and Angiosperms; covers plant morphology, anatomy, sexual, and asexual reproduction. Required enrollment in a 3-hour lecture and a 3-hour lab. Course fee: \$20.

## BIO 282 - Parasites of the Southwest

(Prerequisites: RDG 100 and one previous college-level course in biology)
Introduces basic animal parasitology focusing on organisms likely to be encountered by health workers in the southwestern United States.
BIO 290 - Biology of HIV
3
(Prerequisites: RDG 100 and one previous college-level course in biology)
Focuses on HIV, the causative agent of AIDS, history and origin of the virus, basic immunology, epidemiology and viral biology; indepth study of the AIDS virus, biological social ramifications of AIDS epidemic. Spring only.
(Prerequisite: RDG 100)
Presents various topics. See Schedule of Classes.

## BKNG - Baking Courses

BKNG 101 - Baking Theory I
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Introduces baking fundamentals through scratch production of breads, sweet yeast goods and assorted pastries. Ingredient function and storage and basic math principles are included.
BKNG 102 - Food Service Math
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent, or department approval)
Presents applied math skills for sales, portioning and pricing of food products.
BKNG 103L-Breads
(Pre- or corequisite: BKNG 101, 102; prerequisites: FSMG 101A, RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Covers fundamentals of mixing and processing ingredients in a variety of pan, Pullman and hearth breads, rolls and buns. (5 lab hours a week $=75$ lab hours a term)

## BKNG 104L - Sweet Yeast Goods

(Pre- or corequisite: BKNG 103L; prerequisites: FSMG 101A, RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Covers retail production of donuts, sweet rolls, cinnamon rolls, coffee cake and danish, as well as portion control, safety techniques and costing skills. ( 5 lab hours a week $=75$ lab hours a term)

## BKNG 105L - Cake Batters

(Pre- or corequisite: BKNG 104L; prerequisites: FSMG 101A, RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Presents the processing of ingredients in a variety of cake batters, icings and fillings. Emphasis is on basic cake decorating skills, ingredient storage, proper formulation, and care and use of bakery equipment. ( 5 lab hours a week $=75$ lab hours a term)

## BKNG 106L - Pies and Pastries

(Pre- or corequisite: BKNG 105L; prerequisites: FSMG 101A, RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Stresses a variety of specialized pastries with emphasis on roll-in doughs and leavening agents. Stresses retail operations and merchandising. ( 5 lab hours a week $=75$ lab hours a term)

## BKNG 111 - Baking Theory II

(Prerequisites: BKNG 101, 102, 103L, 104L, 105L, 106L or department approval)
Covers the principles of baking with emphasis on baking chemistry and advanced production procedures. Covers international pastries and desserts with advanced decorating techniques.

## BKNG 112L - Yeast Doughs

(Pre- or corequisite: BKNG 111, FSMG 101B, or department approval)
Covers supervision, safety techniques and advanced production procedures of a variety of breads, sweet doughs and croissants. (5 lab hours a week $=75$ lab hours a term)

## BKNG 113L - Advanced Cake Batters

(Pre- or corequisite: BKNG 112L or department approval) Explores advanced production procedures of a variety of international cakes and tortes with emphasis on baking chemistry and safety as well as production of tiered, special-occasion and

Course Number/Course Name
Credit Hours
scultpured cakes and decorations. (5 lab hours a week = 75 lab hours a term)

## BKNG 114L - Pastries and Cookies

(Pre- or corequisite: BKNG 113L or department approval) Presents advanced production techniques of international pastries, pies and petit fours. Emphasizes the seven different methods of cookie production. (5 lab hours a week $=75$ lab hours a term)

## BKNG 115L - Icings and Fillings

(Pre- or corequisite: $B K N G 114 L$ or department approval) Presents advanced production techniques of international butter creams, fondants, ganache and marzipan. ( 5 lab hours a week $=75$ lab hours a term)
BKNG 296-Special Topics
(Prerequisite: department approval)
Offers an in-depth study of specialized needs. The class may be taken as independent or directed study.
BKNG 297-Special Problems Variable
(Prerequisite: department approval)
Focuses on a specific problem while working with an instructor.

## BT - Building Trades Courses

## BT 177L - Metal Framing

(Prerequisite: CARP 103 or department approval)
Introduces commercial and residential construction design, Uniform Building Code requirements, job site and tool safety and erection of metal buildings. ( 15 theory +75 lab hours a term)

## BT 178 - Remodeling

3
Introduces hand and power tools and the safety measures associated with their use. OSHA regulations and job safety. Provides basic structural, electrical, plumbing and other typical remodeling repair principles and techniques. ( 15 theory +75 lab hours a term)
BT 179 - Advanced Remodeling
(Prerequisite: BT 178 or department approval)
Provides information on job site safety, OSHA regulations, design and construction techniques for remodeling and additions to existing buildings. ( 15 theory +75 lab hours a term)

## CARP - Carpentry Courses

## CARP 101 - Carpentry Blueprint Reading I

(Prerequisites: ENG 098 or equivalent, MATH 097 or equivalent or department approval)
Covers lumber sizing, scaling, centering and triangle theory, interpretation of elevation drawings, floor plans, symbols, notations, dimensions and structural information.
CARP 102 - Foundations Theory
(Prerequisites: ENG 098 or equivalent, MATH 097 or equivalent or department approval)
Introduces safety and use of hand and power tools, site layout and various methods of concrete foundation construction.

## CARP 102L - Foundations Lab

(Pre- or corequisites: CARP 101, 102 or department approval) Covers safety and use of hand and power tools are introduced. Includes site layout, footing, stemwall and concrete slab construction. ( 5 lab hours a week $=75$ lab hours a term)

## CARP 103 - Framing Theory

(Prerequisites: CARP 101, 102 or 170, or department approval) Covers the layout of floor, wall, ceiling and roof structural members, as well as blueprint reading and calculation of structural materials in accordance with the Uniform Building Code (UBC).
(Pre- or corequisite: CARP 103 or department approval) Introduces cutting and assembly of structural material for floor, wall, ceiling and roof systems in accordance with the UBC. Stresses safety. (5 lab hours a week $=75$ lab hours a term)
CARP 104-Exteriors Theory
(Pre- or corequisites: CARP 101, 102 or 170, 103, or department approval)
Provides instruction in the installation of exterior wall and roof finishes, windows and exterior doors in accordance with the UBC.

## CARP 104L - Exteriors Lab

(Pre- or corequisite: CARP 104 or department approval) Provides experience in installing exterior wall and roof finishes, windows and exterior doors in accordance with the UBC. (5 lab hours a week $=75$ lab hours a term)
CARP 111 - Carpentry Blueprint Reading II
(Prerequisites: CARP 101, 102 \& 102L or 170, 103, 103L, 104, 104L, or department approval)
Introduces blueprint applications for residential homes, multiple family dwellings and commercial buildings, along with material estimating and volume measure.

## CARP 112 - Interior Finish Theory

(Pre- or corequisite: CARP 111 or department approval) Focuses on the UBC requirements for the installation of thermal insulation and drywall. Covers methods of painting, trimming and finishing interiors.

## CARP 112L - Interior Finish Lab

(Pre- or corequisite: CARP 112 or department approval) Provides hands-on activities in a safety-focused environment: insulation techniques, drywall installation, taping and texture of drywall, painting, trimwork and finishing of the interiors of residential and commercial buildings. ( 5 lab hours a week $=75$ lab hours a term)

## CARP 113-Cabinet-making and Millwork Theory

(Pre- or corequisite: CARP 111 or department approval)
Covers design, layout and construction of wood cabinets.
CARP 113L - Cabinet-making and Millwork Lab
(Pre- or corequisite: CARP 113 or department approval) Provides hands-on experiences in the safe use of equipment and power tools used in the construction and finish of wooden cabinets. ( 5 lab hours a week $=75$ lab hours a term)

## CARP 114 - Carpentry Remodel Theory

(Pre- or corequisite: CARP 111 or department approval) Covers Uniform Building Code requirements for remodeling an existing structure.

## CARP 114L - Carpentry Remodel Lab

## (Pre- or corequisite: CARP 114 or department approval)

 Offers hands-on experiences in the safe use of power equipment and problem solving in remodeling. ( 5 lab hours a week $=75$ lab hours a term)
## CARP 170 - Carpentry Fundamentals

Covers safety and use of hand and power tools. Includes designing a project, estimating bills for materials, building and completing the project are covered. ( 1 theory +6 lab hours a week $=15$ theory +90 lab hours a term)
CARP 171 - Construction Trades Blueprint Reading
Focuses on reading and interpreting blueprints with emphasis on terminology, symbols, notations, scaling, dimensioning and drawing techniques. Reviews construction methods, materials, calculations for material take-off and estimates.

Course Number/Course Name
Credit Hours

## CARP 172 - Manufactured Housing Set-Up

Provides instruction in manufactured housing carpentry work, set-up, leveling, and blocking to satisfy NMMHD industry standards. Work practices and safety are emphasized.

## CARP 296-Special Topics

(Prerequisite: department approval)
Provides an in-depth study of methods and advanced techniques.
CARP 297-Special Problems Variable
(Prerequisite: department approval)
Focuses on a specific problem while working with an instructor.

## CCAP - Commercial Carpentry Apprenticeship

CCAP 198-Commercial Carpentry Apprenticeship 40
(Prerequisite: current full-time employment in the carpentry industry or department approval)
Covers 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.

## CDV - Child Development Courses

## CDV 101 - Parents and Young Children

Examines interactions of parents and children and diverse family configuration throughout the life cycle. Summer only.

## CDV 103 - Pre-School Growth and Development

(Prerequisites: RDG 099, ENG 099)
Examines the cognitive, physical and social-emotional development of the pre-school child. Requires observations in an appropriate setting.

## CDV 105L - Infant Growth and Development Theory and Lab

(Prerequisites: RDG 099, ENG 099)
Examines the basic needs and growth factors of children with an emphasis on the prenatal period through 36 months. (This course replaces CDV 102 and CDV 102L) (3 theory + 3 lab hours per week)

## CDV 106 - Healthy Young Children

(Prerequisites: RDG 099, ENG 099)
Provides an awareness of basic health and safety management procedures which contribute to the prevention of childhood illnesses. Emphasis on safe environments, child abuse and neglect and children's nutrition. Fall, spring only.

## CDV 120 - Introduction to CDA Training

(Prerequisites: RDG 099, ENG 099)
Examines the history of CDA, the assessment system and competency standards. A review of the six competency and 13 functional areas as well as what is needed to complete the CDA through the direct assessment route. Presents clarification of the steps involved in preparation for CDA assessment.
CDV 120B - 45-Hour Entry-level Course
Assists entry-level early care, education and family support individuals to advance their understanding and practice in the seven competency areas as defined by the State of New Mexico. The course provides opportunities for students to construct knowledge about children, families, communities and support systems through discussion, reflection and skill practice. This course does not require a high school diploma or GED.

Course Number/Course Name
Credit Hours
CDV 124 - Supervised Field Experience
1-5
(Pre- or corequisite: Director approval, CDV 120 and CDV 120B) Provides on-site experience that includes working with children at various early childhood setting, as well as home visitor and bilingual settings serving children birth through age six. Credential requires 480 documented clock hours. One credit equals 45 contact hours. The number of credit hours will be determined jointly by the program director and the student.

## CDV 126 - Childhood Growth \& Development

(Prerequisites: RDG 099, ENG 099; corequisite: CDV 127L)
Provides the foundation for becoming an early childhood professional with knowledge of how young children develop and learn. Major developmental theories are integrated with all aspects of development including psycho-social, physical/motor, cognition, language and literacy. Course is recommended before other courses for ECME concentration.

## CDV 127L - Observing Young Children

1
(Corequisite: CDV 126)
Provides observation in an approved early childhood setting to promote practical application of lecture and text material for CDV 126. (3 hours per week)

## CDV 128 - Early Childhood Learning Environments

(Prerequisite: RDG 099, ENG 099)
Presents the knowledge and skills needed to set up and maintain safe, healthy, multicultural, indoor and outdoor environments for children up to age 8, developing typically and atypically. Promotes good health, nutrition and prevention of diseases.

## CDV 129C - Practicum I

(Prerequisite: RDG 099, ENG 09)
Provides practical experience in an approved FS or ECME setting to practice competencies learned through coursework and texts. (6 hours per week)

## CDV 132 - Emerging Literacy in Early Childhood

Provides basic information for promoting young children's language, literacy, investigative and problem-solving activities. Emphasizes is in understanding of developmental stages and their implications for developmentally appropriate practice. Fall, summer only.

## CDV 201 - Middle Childhood Growth and Development <br> (Prerequisite: RDG 099, ENG 099)

Presents the principles of growth and development for 6- to 11-year-old children in cognitive, physical and social-emotional areas. Summer only.

## CDV 202 - Adolescent Growth and Development

(Prerequisite: RDG 099, ENG 099)
Examines the development and communication patterns of adolescents within the family setting. Spring only.

## CDV 203C - Practicum II

(Prerequisite: RDG 099, ENG 099)
Provides practical experience in an approved FS or ECME setting to practice competencies learned through coursework and texts. (Formerly Early Childhood Practicum CDV 131C) (6 hours per week)
CDV 204 - Introduction to Classroom Learning

Introduces educational psychology and learning. Emphasis is on practical application. Spring only.

Course Number/Course Name
Credit Hours

## CDV 206 - Education of The Exceptional Person

(Prerequisite: RDG 099, ENG 099)
Examines the characteristics and educational needs of exceptional children. Surveys definition, etiology and educational alternatives for each of the exceptionalities. Fall only.

## CDV 207 - Management of Early Childhood Programs

(Prerequisites: RDG 099, ENG 099)
Presents information and skills to develop an effective early childhood program. Students examine staff responsibilities, program development, scheduling, behavioral observation and evaluation techniques.

## CDV 209 - Early Childhood Learning Environments II

(Prerequisites: RDG 099, ENG 099)
Focuses on planning, analyzing and evaluating materials, equipment, activities and approaches for learning experiences for birth through third grade. Examines developmentally appropriate practices in curriculum planning. (Formerly titled Developmentally Appropriate Practice)

## CDV 210-Guidance in Early Childhood

## (Prerequisite: RDG 099, ENG 099)

Covers positive guidance and discipline techniques; emphasis is on appropriate experiences for the development of autonomy, selfesteem and social competency. Fall, spring only.

## CDV 212 - Special Issues in Child and Family Development

(Prerequisite: Must be in final term or have permission of program director; summer and fall graduates may enroll in spring term.)
Presents in an exit seminar a balance of research findings, theory and application. Focuses on critical contemporary issues in the field. Students complete a professional portfolio. Spring only.

## CDV 215 - Introduction to the Early Childhood Professions

Explores a variety of early childhood care and education programs in multicultural settings for typical and atypical children. Participate in a field experience at different sites serving children birth to three, three to five, and five to eight. (3 theory +3 lab hours a week for 15 weeks)
Spring, summer only.

## CDV 216 - Individual and Family Diversity

## (Prerequisite: RDG 099, ENG 099)

Focuses on individual and family in terms of social and community diversity. Variances including disabilities, ethnicity, gender and social class are addressed. Fall, spring only.

## CDV 217 - Diversity in Early Childhood Programs and Assessment

(Prerequisite: RDG 099, ENG 099)
Focuses on appropriate programming and assessment of typical and atypical young children, the role of parents in designing programs, the role of assessment in designing curricula and the role of language and culture in assessment. Fall, spring only.

## CDV 218-Strengthening Family Structures

(Prerequisite: RDG 099, ENG 099)
Examines families from a structural perspective by being exposed to systems thinking. Explores how families are similar to and different from others in society, including biological and social systems. Strength-based perspective is studied and encouraged in practice. Spring, summer only.

Course Number/Course Name
Credit Hours
CDV 219 - Marriages and Families
(Prerequisite: RDG 099, ENG 099)
Provides insights into contemporary marriage and family situations. Focus on decision making for better understanding of families and the broader society. Fall, spring only.

## CDV 296 - Topics

1-3
Various special topics in the field are offered as elective hours.

## CDV 297 - Independent Study

(Prerequisite: program director approval)
A specific problem is defined and studied while working with the instructor.

## CDV 299-Cooperative Education

(Prerequisite: permission of director)
In cooperation with local employers, the student works for one term on a cooperative basis in an appropriate training program. The position is paid.

## CHEM - Chemistry Courses

## CHEM 100 - Basics of Chemistry

## (Recommended: MATH 100A)

Focuses on the study of chemistry: the periodic table, chemical bonds and reactions, solutions and energy. Integrates applied math (metric system, unit analysis, significant figures), reading academic text and study skills. Provides essential background for CHEM 111, BIO 123 and BIO 136. (3 theory hours + 1 lab hour a week)
CHEM 111 - Introduction to Chemistry
(Prerequisites: RDG 100 and MATH 100A)
Introduces qualitative and quantitative aspects of general chemistry: atomic and molecular structure, periodic table, acids and bases, mass relationships, solutions, and brief introduction to organic chemistry.
CHEM 112L - Introduction to Chemistry Laboratory 1 (Pre- or corequisite: CHEM 111)
Three-hour lab. Introduces experiments complementing CHEM 111. Course fee: $\$ 25$.

## CHEM 121/121L - General Chemistry I

(Prerequisites: RDG 100 and MATH 120)
[First semester of a two-semester sequence for students in sciences, engineering or premed.] Introduces atomic and molecular structure, chemical periodicity, mass and energy relationships, and chemical reactions. Required enrollment in a 3-hour lecture and a 3-hour lab. Course fee: $\$ 25$.
CHEM 122/122L - General Chemistry II
(Prerequisite: CHEM 121/121L within past three years \& MATH 121)
Emphasizes acids and bases, equilibrium, kinetics, thermodynamics, solubility, electro- and nuclear chemistry. Introduces coordination and organic chemistry. Required enrollment in a 3-hour lecture and a 3hour lab. Course fee: $\$ 25$.

## CHEM 212-Organic Chemistry and Biochemistry

(Prerequisite: CHEM 111/112L or 121/121L)
Introduces organic and biochemistry for students in health or environmental occupations: survey of organic functional groups including chemistry of living organisms. Emphasis on medical aspects.

## CHEM 253/253L - Quantitative Analysis

## (Prerequisite: CHEM 122L)

Introduces theory and techniques of volumetric, gravimetric, potentiometric, chromatographic, and spectrophotmetric analysis. Introduction to data-handling and statistics. Three one-hour lectures and six-hour lab. It is recommended that students complete CHEM 253 L within two semesters of completing CHEM 122L. Course fee: $\$ 40$. Spring only.

Course Number/Course Name
Credit Hours
CHEM 296 - Topics in Chemistry
(Prerequisite: RDG 100)
Presents various topics. See Schedule of Classes.

## CIS - Computer Information Systems Courses

## CIS 110-DOS Fundamentals

(Recommended prerequisite: 25 wpm typing skill)
Focuses on DOS commands, internal and external commands, directories, file management and batch files. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 151]
CIS 115 - Help Desk Technology
3
Incorporates problem-solving skills and technical knowledge skills to develop an effective help desk support system. Focuses on solving technical problems, verifying results, processes and procedures used in support, technical support tools, and developing good communication skills.

## CIS 116 - Help Desk Support

Focuses on creating and maintaining an efficient, cost-effective help desk that adds value to a business through a series of clear and measurable goals and establishing service priorities and various tools to improve help desk performance.

## CIS 119 - Introduction to Personal Digital Assistant (PDA)

Covers uses and applications of the PDA. Students are required to provide a PDA and an account with a service provider for use in the class. (2 theory +3 lab hours a week)

## CIS 120 - WordPerfect for Windows

(Recommended prerequisite: BA 150)
Focuses on word processing using WordPerfect for Windows with emphasis on functions and practical office applications. (2 theory +3 lab hours a week) Course fee: $\$ 15$ [Previously offered as MMS 134]

## CIS 121 - Word Fundamentals

(Recommended prerequisite: CIS 130)
Focuses on creating, editing, enhancing and merging documents. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 163]

## CIS 123 - Microsoft Word for Windows

(Recommended prerequisite: BA 150)
Focuses on word processing using Microsoft Word for Windows with emphasis on functions and practical office applications.
( 2 theory +3 lab hours a week) Course fee: $\$ 15$ [Previously offered as MMS 135]

## CIS 126 - Desktop Publishing Using Word

(Recommended prerequisites: knowledge of Word, BA 150)
Integrates Word graphics and text to produce newsletters, instructional materials and other documents. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 154]

## CIS 130-Microsoft Windows

Explores basic elements of Windows with emphasis on software functions. ( 5 weeks; 2 theory +3 lab hours a week)
Course fee: $\$ 5$ [Previously offered as MMS 150]
CIS 131 - Intermediate Windows
(Prerequisite: CIS 130 or department approval)
Covers concepts such as MS Windows OS interaction with
hardware and software to optimally configure and customize computers. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 164]

## CIS 135 - Windows 2000 Professional

(Recommended prerequisite: CIS 130)
Explores managing Windows Professional user accounts and groups to control access to files and other resources. This course plus CIS 136 and 282 may assist in preparation for MCP or MCSE certification. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 162]

## CIS 136 - Intermediate Windows 2000 Professional

(Prerequisite: CIS 135 or department approval)
Covers concepts such as internetworking, protocols, remote access, performance tuning and troubleshooting. This course plus CIS 135 and 282 may assist in preparation for MCP or MCSE certification. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$

## CIS 140 - PowerPoint Fundamentals

(Recommended prerequisites: 25 wpm typing skill, CIS 130)
Focuses on basic text charts and graph charts. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 157]

## CIS 142 - Presentation Graphics

(Recommended prerequisite: BA 150)
Provides hands-on experience in graphics presentation software
which emphasizes charting, drawing, organizing and displaying text and images. (2 theory +3 lab hours a week) Course fee: $\$ 15$
[Previously offered as MMS 257]

## CIS 143 - MS Outlook

(Recommended prerequisite: CIS 130)
Covers concepts such as managing messages, appointments, contacts and tasks, as well as track activities ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$.

## CIS 145 - Introduction to Computer Networking

(Recommended prerequisite BA 150)
Offers concepts of data communications theory. Concepts include data communications networking terms, components and applications. [Previously offered as MMS 140]

## CIS 147 - Introduction to Information Management 3

(Recommended prerequisite: BA 150)
Provides a broad overview of important topics of information systems that are reviewed from the managerial point of view. [Previously offered as MMS 142]

## CIS 150 - Excel Fundamentals

(Recommended prerequisites: 25 wpm typing skill, CIS 130)
Stresses concepts such as creating, editing and enhancing worksheets, formatting cells, basic formulas and charts. ( 5 weeks; 2 theory + 3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 158]

## CIS 151 - Intermediate Excel

(Prerequisite: CIS 150 or department approval)
Manages multiple worksheets and workbooks, manage data and design forms. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: \$5 [Previously offered as MMS 166]

## CIS 152 - Advanced Excel

(Prerequisite: CIS 151 or department approval)
Focuses on creating pivot tables, using advanced data analysis techniques and Excel with other programs. (5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 167]

## CIS 155 - Access Fundamentals

(Recommended prerequisites: 25 wpm typing skill, CIS 130) Focuses on creating database tables, queries, forms and reports. (5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 159]

## Course Number/Course Name

Credit Hours

## CIS 156 - Intermediate Access

(Prerequisite: CIS 155 or department approval)
Covers concepts such as managing data, creating special action queries and tools, adding features to forms and adding hyperlinks to database. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 168]

## CIS 157 - Advanced Access

(Prerequisite: CIS 156 or department approval)
Examines concepts such as Access macros, advanced reports, data filters using parameters and sharing databases. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 169]

## CIS 160-Introduction to Internet

(Recommended prerequisite: CIS 130)
Introduces concepts such as e-mail, listserve, file transfer protocol (FTP) and World Wide Web browsers. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 160]
CIS 164 - Hypertext Markup Language (HTML)
(Recommended pre- or corequisites: CIS 130, CIS 160 or ECM 176)
Focuses on the concepts of a format used for writing documents to be viewed with a World Wide Web browser. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 171]

## CIS 165 - Web Construction Coding

(Prerequisite: CIS 164 or department approval)
Applies the concepts of advanced HTML markup such as forms, image maps, and review of different programming languages. (5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 172]

## CIS 166 - Dynamic Styles

(Prerequisite: CIS 165 or department approval)
Introduces concepts such as letting a Web page change itself once it is already loaded into the browser thereby improving response time and interactivity as well as controlling the layout of the page. (5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$

## CIS 170 - Introduction to Multimedia

(Recommended prerequisites: BA 150, knowledge of Windows) Explores concepts of how text, graphics, sound, images and video come together in a multimedia program. Course fee: $\$ 15$ [Previously offered as MMS 170]

## CIS 180 - Extensible Markup Language (XML)

(Recommended pre- or corequisite: CIS 164)
Focuses on rules for developing standardized markup languages and customizing tags in Extensible Markup Language that facilitate business applications of electronically developed documents are presented. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 177]
CIS 181 - Business Document Presentation
(Prerequisite: CIS 180 or department approval)
Focuses on XML techniques to customize the format and presentation of business documents. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$
CIS 182 - Validating Business Documents
(Prerequisite: CIS 181 or department approval)
Focuses on XML techniques for collecting and managing data from web pages. Policies and practices to address customer privacy issues. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$

## CIS 186 - Project Management

(Recommended prerequisites: BA 150, CIS 130)
Focuses on planning, scheduling, managing and communicating project information. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 161]

CIS 190 - Beginning FrontPage
(Recommended prerequisites: CIS 130, CIS 160 or ECM 176, knowledge of HTML)
Surveys concepts such as planning, creating, publishing and managing web sites using MS FrontPage Editor, Explorer and Image Composer. Develop and publish projects that include text, images, hyperlinks, forms, tables and frames. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 178]

## CIS 191 - Intermediate FrontPage

(Prerequisite: CIS 190 or department approval)
Focuses on advanced forms, database connectivity, advanced image mapping, e-commerce and secured transactions. ( 5 weeks; 2 theory + 3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 179]
CIS 201 - Hardware and Software Administration
(Prerequisites: BA 150, CIS 130 or department approval) Introduces concepts such as computer viruses, utilities software, DOS and Windows operating systems, installation of boards and software, hardware components, troubleshooting, and disassembling/building a microcomputer system. (2 theory +3 lab hours a week) Course fee: $\$ 15$ [Previously offered as MMS 201]

## CIS 202 - Advanced Hardware and Software Management

(Prerequisite: CIS 201 or department approval)
Focuses on advanced installation/troubleshooting of hardware/ software including conflict resolution. Completion of CIS 201 and CIS 202 may assist in A+ certification. (2 theory +3 lab hours a week) Course fee: $\$ 15$

## CIS 210-Office Management Software

(Recommended prerequisite: BA 150)
Introduces concepts of how groupware is used to create, analyze and share information. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 156]

## CIS 220 - Word Certification Prep

(Recommended prerequisite: CIS 123)
Focuses on integrating all levels of Word and may assist in preparation for the Word MOUS certification exam. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$

## CIS 222 - PowerPoint Certification Prep

(Recommended prerequisite: CIS 142)
Focuses on integrating all levels of PowerPoint and may assist in preparation for the PowerPoint MOUS certification exam. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$

## CIS 224 - Excel Certification Prep

(Recommended prerequisite: CIS 152)
Focuses on integrating all levels of Excel and may assist in preparation for the Excel MOUS certification exam. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$

## CIS 226 - Access Certification Prep

(Recommended prerequisite: CIS 157)
Focuses on integrating all levels of Access and may assist in preparation for the Access MOUS certification exam. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$

## CIS 230 - Business Database Management

(Prerequisites: CIS 157, CIS 164)
Stresses concepts such as databases and web pages that allow for interactive updating of data and retrieval of information. (2 theory +3 lab hours a week) Course fee: $\$ 10$ [Previously offered as MMS 252]

Course Number/Course Name
Credit Hours
CIS 232 - Database Design: MS SQL Server
(Recommended prerequisites: BA 150, CIS 136, CIS 157; recommended pre- or corequisite: CIS 243)
Focuses on using logical modeling and physical modeling to design a relational database management system independent model. This course may assist in preparation for MCP certification. (2 theory +3 lab hours a week) Course fee: $\$ 10$

## CIS 237 - Spreadsheet Macro Programming

(Pre- or corequisite: ACCT 254 or CIS 152)
Provides students with basic procedures for writing and running a macro are covered. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 261]

## CIS 239 - Foundations of Network+

(Recommended prerequisites: BA 150, CIS 145)
Provides students with the skills and knowledge expected of networking professionals. It provides a foundational knowledge in diverse operational environments and operating systems. This course may assist in preparation for Network+ certification. (2 theory +3 lab hours a week) Course fee: $\$ 10$

## CIS 240 - Data Management

(Recommended prerequisites: CIS 145, CIS 130)
Provides students with hands-on experience on data communications networking. Applications include setting up user accounts, creating directories, login scripts and menus. (2 theory +3 lab hours a week) Course fee: $\$ 10$ [Previously offered as MMS 240]

## CIS 241 - NetWare Data Management

(Recommended prerequisites: CIS 130)
Provides students with hands-on experience in data communications using NetWare. Students will manage users, groups, login security, trustee assignments, file attributes, printing, login scripts and menus using NetWare. (2 theory +3 lab hours a week) Course fee: $\$ 10$ [Previously offered as MMS 241]
CIS 243 - Windows Server Management
(Recommended prerequisite: CIS 130; recommended pre- or corequisites: CIS 135, CIS 145)
Focuses on user and group management, client and server management and file sharing management. This course may assist in preparation for MCP or MCSE certification. (2 theory +3 lab hours a week) Course fee: $\$ 10$ [Previously offered as MMS 242]

## CIS 244 - Windows TCP/IP Data Communications

(Prerequisite: CIS 243)
Presents concepts of TCP/IP, its implementation, and the combination of Windows Server and its networking with the TCP/IP suite of communication protocols. (2 theory +3 lab hours a week) Course fee: $\$ 10$ [Previously offered as MMS 243]

## CIS 245 - Windows Server Data Management

## (Recommended prerequisite: CIS 243)

Focuses on networking protocols, protocol bindings, application layers, managing clients and servers, utilizing user and group accounts and profiles. This course may assist in preparation for MCP or MCSE certification. (2 theory + 3 lab hours a week) Course fee: \$10 [Previously offered as MMS 244]
CIS 246 - Manage Windows Directory Services
(Prerequisites: BA 150, CIS 136; recommended pre- or corequisite: CIS 243)
Focuses on organizing objects into a structure that provides for a means of searching and locating objects within the network database directory and making information available to authorized users, applications and operating system services. This course may assist in preparation for MCP or MCSE certification. (2 theory +3 lab hours a week) Course fee: $\$ 10$

## CIS 247 - Designing Windows Server Directory Services

(Recommended prerequisites: BA 150, CIS 136; recommended pre- or corequisite: CIS 243)
Focuses on analyzing business requirements and designing a directory service architecture that meets the requirements for desktop management and design for businesses and service locations. This course may assist in preparation for MCP or MCSE certification. ( 2 theory +3 lab hours a week) Course fee: $\$ 10$

## CIS 248 - Designing Windows Server Network

(Recommended prerequisites: BA 150, CIS 136; recommended pre- or corequisite: CIS 243)
Focuses on business and technical requirements in order to design a network that meets business needs. Topics will include designing for Internet connectivity and a Wide Area Network infrastructure. This course may assist in preparation for MCP or MCSE certification. (2 theory +3 lab hours a week) Course fee: $\$ 10$
CIS 249 - Windows Server Network Security
(Recommended prerequisites: BA 150, CIS 136; pre- or corequisite: CIS 243)
Focuses on analyzing and evaluating information needed to design a security solution for Windows and access between networks that meet business needs. This course may assist in preparation for MCP and MCSE certification. (2 theory + 3 lab hours a week) Course fee: $\$ 10$
CIS 250 - Business Intranets/Extranets
(Recommended prerequisites: CIS 160, CIS 164)
Explores concepts such as planning, managing and using business intranets/extranets. (2 theory +3 lab hours a week) Course fee: $\$ 10$ [Previously offered as MMS 250]

## CIS 254 - Business Operations Management

(Recommended prerequisites: BA 150, CIS 130)
Focuses on scheduling, production planning, and tracking and forecasting and managing conflicts. (2 theory +3 lab hours a week) Course fee: $\$ 10$ [Previously offered as MMS 251]

## CIS 255 - Desktop Publishing

(Prerequisites: BA 150, CIS 130 or department approval) Focuses on professional high-quality page design for business publications-newsletters, flyers, brochures, business cards and advertisements-using page layout tools for print and the Web. (2 theory +3 lab hours a week) Course fee: $\$ 15$ [Previously offered as MMS 255]

## CIS 256 - Advanced Desktop Publishing

(Prerequisite: CIS 255)
Builds on desktop publishing including design techniques, downloading materials from the Internet and managing linkages to PostScript graphics and photos. (2 theory +3 lab hours a week)
Course fee: $\$ 15$ [Previously offered as MMS 256]

## CIS 260 - Beginning PhotoShop

(Prerequisite: CIS 130 or department approval)
Focuses on concepts such as using painting and color-correction tools to manipulate images for print and the Web. ( 5 weeks; 2 theory + 3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 173]

## CIS 261 - Intermediate PhotoShop

(Prerequisite: CIS 260 or department approval)
Focuses on concepts such as using paths, channels, clipping groups, special effects, masks with finer selections to produce high-quality digital images for print and the Web. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 174]

Course Number/Course Name

## CIS 262 - Advanced PhotoShop

(Prerequisite: CIS 261 or department approval)
Focuses on concepts such as using the Web tools in Image Ready for optimizing images and creating GIF animations. ( 5 weeks; 2 theory + 3 lab hours a week) Course fee: $\$ 5$ [Previously offered as MMS 175]

## CIS 265 - Fireworks

(Recommended prerequisites: BA 150, CIS 130)
Covers concepts such as preparing graphics for the Web. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$

## CIS 270 - Macromedia Authorware

(Recommended prerequisite: CIS 170)
Explores concepts of interactive multimedia authoring program with emphasis on learning to combine a variety of media. (2 theory +3 lab hours a week) Course fee: $\$ 15$ [Previously offered as MMS 270]

## CIS 271 - Macromedia Director

(Recommended prerequisite: CIS 170)
Emphasizes concepts such as the use of interactive multimedia script language to create dynamic multimedia productions. ( 2 theory +3 lab hours a week) Course fee: $\$ 15$ [Previously offered as MMS 271]

## CIS 272 - Macromedia Dreamweaver

(Recommended prerequisites: BA 150, CIS 170)
Explores concepts such as building web sites using rollovers, tables, and style sheets. ( 10 weeks; 2 theory +3 lab hours a week) Course fee: \$10

CIS 273 - Macromedia Flash
3
(Recommended prerequisites: BA 150, CIS 170)
Focuses on concepts such as animation, drawing, and interactivity in Flash as well as sound and introduction to actions. (2 theory +3 lab hours a week) Course fee: $\$ 15$
CIS 274 - Computer Illustration
(Recommended prerequisite: CIS 130)
Explores concepts such as vector-based artwork for print, presentation and the Web using draw tools to produce templates, patterns, and logos for a wide variety of business publications ranging in size from business cards to banners. (2 theory +3 lab hours a week) Course fee: $\$ 15$

## CIS 275 - Adobe Premiere

(Prerequisite: CIS 274; pre- or corequisite: CIS 271)
Explores concepts of choosing appropriate software and media to design and produce a cost effective multimedia presentation. (2 theory +3 lab hours a week) Course fee: $\$ 15$ [Previously offered as MMS 272]

## CIS 278 - Business Web Site Design

(Recommended prerequisites: CIS 160 or ECM 176 and CIS 165 or CIS 191)
Focuses on concepts such as fundamentals of communications, marketing, Internet, HTML and review of scripting to design basic elements of business web sites. ( 2 theory +3 lab hours a week) Course fee: $\$ 15$ [Previously offered as MMS 276]
CIS 282 - Windows 2000 Certification Prep
(Recommended prerequisite: CIS 136)
Continues exploration of Windows Professional OS. Intensive course is a continuation of CIS 136 designed to integrate all levels of Windows Professional and may assist in the preparation for MS Windows Professional, MCP or MCSE certification exam.
( 5 weeks; 2 theory +3 lab hours a week) Course fee $\$ 10$

## CIS 285 - Windows Server Certification Prep

(Recommended prerequisite: CIS 243)
Focuses on concepts such as installing, utilizing utilities, defining and test user profiles and policies and describing the domain client and server. Intensive course is a continuation of CIS 243 designed to integrate all aspects of Windows Server and may assist in the preparation for MS Server, MCP, or MCSE certification exam. ( 5 weeks; 2 theory +3 lab hours a week) Course fee $\$ 10$

## CIS 288 - Windows Server Data Management Certification Prep

(Recommended prerequisite: CIS 245)
Focuses on advanced training on WAN for the enterprise. Intensive course is a continuation of CIS 245 designed to integrate all aspects of MS Windows network infrastructure and may assist in preparation for MS, MCP or Network Infrastructure MCSE certification exam. ( 5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 10$

## CIS 290 - MS SQL Server

(Recommended prerequisites: CIS 136, 157; recommended preor corequisite: CIS 243)
Provides student with an overview of Microsoft SQL Server. Instruction is provided on SQL installation, configuration, security and performance and database management. This course may assist in preparation for MCP certification. (2 theory +3 lab hours a week) Course Fee $\$ 10$.

## CIS 291 - MS Exchange Server

(Recommended prerequisite: CIS 136; recommended pre- or corequisite: CIS 243)
Provides students with the concepts of Microsoft Exchange Server. Instruction is provided on Exchange installation, configuration, user accounts, security and performance. This course may assist in preparation for MCP certification. (2 theory +3 lab hours a week) Course fee: $\$ 10$

## CIS 296 - Topics Course

Explores current topics in computers. [Previously offered as MMS 296]

## CIS 297-Special Problems

Variable

## (Prerequisite: department approval)

Allows student and instructor to define a specific problem in the area of the student's interest and directly related to the program. The student develops and executes a solution using analytical techniques appropriate to the problem. An oral presentation may be required. [Previously offered as MMS 297]

## CIS 298 - Internship

(Prerequisites: CIS 152 or CIS 157 or CIS 254 or CIS 243 or CIS 241 or CIS 272 or CIS 273 and department approval)
Provides students the opportunity to 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 TVI and the company. (1 theory +9 lab hours a week) [Previously offered as MMS 298]
CIS 299-Cooperative Education
(Prerequisites: CIS 152 or CIS 157 or CIS 254 or CIS 243 or CIS 272 or CIS 273 or CIS 241 and department approval) Provides students the opportunity to 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 TVI and the employer. (1 theory +9 lab hours a week) [Previously offered as MMS 299]

Course Number/Course Name
Credit Hours

## CJ - Criminal Justice Courses

## CJ 101 - Criminal Law

(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval)
Covers the historical development, purposes and goals of common and statutory criminal laws which control actions in the criminal justice system.
CJ 102 - Juvenile Law and Procedure 3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval)
Covers the juvenile court and justice system including the Children's Code and the Rules of Procedure.
CJ 103 - Probation and Parole
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval)
Presents 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
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval)
Introduces basic patrol function and the problems faced by law enforcement officers.
CJ 107 - Criminal Procedure
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval)
Examines the method of enforcing the substantive criminal law. Includes the process of applying the established law, constitutional law, rules of evidence, case law and an understanding of the logic used by the courts.
CJ 108-Community-oriented Policing
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval)
Examines the history of policing, problems with earlier methods, rethinking of the basic role of police, and using police for problem solving, iimproving relations, and crime prevention with the public.

## CJ 109 - Introduction to Security Services

Covers the development of security services, relationships to the legal process, career roles and operational processes in security operations. The course also helps homeowners, and covers personal defense, report writing, emergency procedures, and defensive driving.
CJ 111-Traffic Investigation and Enforcement (Prerequisites: CJ 101, 104, 118 or department approval) Presents the study of traffic law enforcement and basic wreck checking. Progresses to the complete investigation of major accidents.

## CJ 112 - Criminal Investigation

(Prerequisites: CJ 101, 107, 118 or department approval) Presents basic criminal investigation from the preliminary investigation to final preparation and presentation in court.

## CJ 113-Organized and White Collar Crime

(Prerequisites: CJ 101 and 107 or department approval) Covers illegal activities of people and institutions whose purpose is profit through legitimate gain through illegal enterprise.
CJ 116 - Correctional Services
(Prerequisite: CJ 101 or department approval)
Covers the duties and authorities of correctional officers, admission procedures, cell searches, lockdown, penal terminology, key control measures and operations, as well as court decisions dealing with corrections.

Course Number/Course Name
Credit Hours

## CJ 117-Public Policies and Strategies

Presents issues and strategies involved in developing and implementing public policy, including problems in criminal justice, standard police operations, public security, public safety, corrections, and juvenile justice.
CJ 118 - Report Writing 3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval)
Covers police reports, including writing and use of forms.

## CJ 296-Special Topics

(Prerequisite: department approval)
Provides the in-depth study of problems and the advanced techniques that criminal justice experts use in responding to them.

## CJ 297 Special Problems

Variable
(Prerequisite: department approval)
Focuses on a specific problem while working with an instructor.

## CJ 299 - Cooperative Education

Employs the student at an approved program-related work site and applies learned theory based on goals and objectives.

## CLA - Clinical Laboratory Assistant Courses

CLA 101L - Introduction to Laboratory Technique 3 (Prerequisites: RDG 099 or equivalent, ENG 099 or equivalent, MATH 099 or equivalent)
Introduces basic medical laboratory techniques with an emphasis on urinalysis and immunology. Includes laboratory instrumentation, communication, quality control and safety. (4 theory and 6 lab hours a week for $71 / 2$ weeks) Uniform fee: $\$ 10$

## CLA 102L - Basic Hematology/Chemistry

## (Prerequisite: CLA 101L)

Presents theory and procedures associated with routine hematology and chemistry tests. Students apply theory in performing basic hematology and chemistry procedures. Includes instrumentation, calibration and quality control. (4 theory and 6 lab hours a week for $71 / 2$ weeks)

## CLA 103C Clinical Experience

(Prerequisite: CLA program director approval, CLA 101L, CLA 102L, PHLB 110, PHLB 110L, PHLB 122C or equivalent) Provides practical experience in chemistry, hematology, microbiology, and urinalysis procedures in hospital and clinic medical laboratories. (15 hours per week for 7-1/2 weeks)

## CM - Construction Management Courses

## CM 130-Construction Detailing

Introduces basics of construction detailing and working drawing sets. (2 theory +2.5 lab hours a week)

## CM 132L - Construction

 Graphics/Engineering Methods(Pre- or corequisite: CM 130 or department approval) Introduces principles and techniques of computer graphic applications used in the construction industry. (1 theory +5 lab hours a week)

## CM 171 - Construction Materials and Techniques

(Pre- or corequisite: CM 130 or department approval) Includes plan reading, elementary construction techniques, materials and construction documents; emphasizes Uniform Building Code plan check. (3 theory hours a week)
CM 175 - General Contractor Preparation
Covers licensing requirements, rules and regulations, business law, the UBC, construction methods and contract management. (3 theory hours a week)

Course Number/Course Name
Credit Hours

## CM 202 - Commercial Construction Theory

(Prerequisites: CM 171 and CP 176 or department approval) Complete UBC plan check and survey of the Construction Specifications Institute. (1 theory +5 lab hours a week)

## CM 256 - Statics

Introduces the use of graphic and algebraic formulas, static forces, equilibrium, moments, stress and strain. Covers beams and columns in wood, steel and concrete in reference to the UBC and institutional manuals. (3 theory hours a week)
CM 257 - Construction Estimating
(Prerequisites: CM 171 and CP 176 or department approval) Complete cost estimates on buildings based on Construction Specifications Institute, formatted budgets, take-off techniques. (1 theory +5 lab hours a week)

## CM 260 - Computerized Estimating Techniques

(Prerequisites: CM 171 and CP 176 or department approval) The course content covers various methods of computerized estimating techniques including, digitized take-offs, computerized form generation, and online price analysis. The class will utilize the most current and up to date state of the art computer estimating software. ( 1 theory +5 lab hours a week)

## CM 261L - Construction Surveying

(Pre- or corequisite: MATH 123 or department approval) Introduces the basic techniques and equipment used in surveying including tape, level and theodolite; leveling, distance and angle measurement; traversing; and note-keeping. (1 theory +5 lab hours a week)

## CM 263 - Construction Equipment and Methods <br> 3

(Corequisites: CM 277 and MATH 120 or department approval)
Presents large equipment used to move, lift and assemble components of commercial buildings. Covers earth work, concrete forms and construction, along with steel, wood and masonry methods, productivity, licenses and contract options. (3 theory hours a week)

## CM 277 - Construction Project Management

(Pre- or corequisite: CM 257 or department approval) Includes introduction to construction processes, techniques for transforming contract documents and estimating into accurate project schedules. Surveys state-of-the-art scheduling techniques, 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. (3 theory hours a week)

## CM 279-Mechanical Electrical Systems and Construction

Introduces materials and equipment used in the electrical and mechanical systems of commercial building and associated codes and costs. (3 theory hours a week)
CM 296 - Topics ..... 1-4
(Prerequisite: permission of program chair)
In-depth study of topics related to construction management.

## CM 297 - Special Problems

(Prerequisite: permission of program chair)
The student and instructor define a specific problem directly related to the program in the area of the student's interest. The student develops and executes a solution using analytical and drafting techniques. An oral presentation may be required.

## CM 298 - Internship

(Prerequisite: permission of program chair)
In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate defined training program. The position is not paid.
(Prerequisite: permission of program chair)
In cooperation with local industry, the student is employed at an approved course-related work site and applies learned theory based on goals and objectives for one term. The position is paid.

## COMM - Communications Courses

COMM 110 - Mass Media and Society
(Prerequisite: RDG 100. Recommended: ENG 101)
Examines the roles media play in American society and their effects on other forms of communication.
COMM 130 - Public Speaking
(Prerequisite: RDG 100. Recommended: ENG 101)
Combines theory and practical application. Focuses on organizing and delivering, listening, and responding to various types of presentations.
COMM 221 - Interpersonal Communication Studies 3
(Prerequisites: RDG 100 and ENG 101)
Provides overview of perception, emotions, nonverbal communication, language, listening, defensiveness, and relational conflict.
Emphasizes developing communication styles and skills to enhance effectiveness in professional and personal relationships.

## COMM 223 - Introduction to Nonverbal Communication Studies

(Prerequisite: RDG 100. Recommended: ENG 101)
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
(Prerequisite: RDG 100. Recommended: ENG 101) Examines group types, characteristics, dynamics, conflicts, norms, roles, leadership, problem solving, and decision making in small group processes.

## COMM 232 - Business and Professional Communication Studies

(Prerequisite: RDG 100. Recommended: ENG 101)
Emphasizes developing, organizing, and supporting ideas in interpersonal business encounters, groups, teams, meetings, interviews, and platform presentations.

## COMM 240-Organizational Communication Studies

(Prerequisite: RDG 100. Recommended: ENG 101)
Focuses on communication networks, power and authority, manager/employee relationships, leadership, and interviewing in organizational contexts.

## COMM 270-Communication Studies for Teachers

(Prerequisite: RDG 100. Recommended: ENG 101)
Introduces systems approach to classroom communication at any level, providing a means to analyze, develop, and facilitate effective communication.

## COMM 289 - Listening

(Prerequisite: RDG 100. Recommended: ENG 101, and COMM 221)
Investigates and applies current research in listening theory. Analyzes the appropriateness and applicability of five major types of listening in academic, business, media, and interpersonal contexts.

Course Number/Course Name
Credit Hours
COMM 290 - Gender Communication Studies
(Prerequisite: RDG 100. Recommended: ENG 101 and COMM 221)
Focuses on communication differences between men and women; implications and consequences of these differences and discussion of various strategies for change in business, media, educational, and intimate contexts.

## COMM 291 - Intercultural Communication Studies

(Prerequisite: RDG 100. Recommended: ENG 101, and COMM 221)
Focuses on culture and the differences in communication values and styles, both verbal and nonverbal. Analysis of intercultural encounters and development of skills for more effective intercultural communication.
COMM 292 - Family Communication Studies
(Prerequisite: RDG 100. Recommended: ENG 101, and COMM 221)
Examines family systems theory, communication patterns, rules, roles, themes, power, intimacy, ethnicity, and conflict in families.
COMM 293 - Topics in Communication Studies 3
(Prerequisite: RDG 100. Recommended: ENG 101, and COMM 221)
Presents various topics. See Schedule of Classes.

## COS - Cosmetology Courses*

## *See page 77 for a complete listing of prerequisites for the Cosmetology Program.

COS 101-Orientation
(Prerequisites: ENG 100 or equivalent, RDG 100 or equivalent and MATH 100A or department approval)
Introduces cosmetology. Presents theory in the areas of professional image, first aid and work ethics.

## COS 102 - Sterilization/Sanitation

 Bacteriology Theory(Pre- or corequisite: COS 101 or department approval) Presents related theory applied to preparation, procedures, products, materials and implements, methods of sanitation and sterilization, chemical agents, types and classifications of bacteria, bacterial growth and infections.

## COS 102L - Sterilization/Sanitation/ Bacteriology Lab

(Pre- or corequisite: COS 102 or department approval)
Presents basic skills in salon safety, preparation, procedures and practice, selection of products, materials and implements, methods of sanitation and prevention of bacterial growth and infection. (2.5 lab hours a week $=37.5$ lab hours a term) Course fee: $\$ 50$
COS 103 - Shampoo/Rinses/Scalp Treatment Theory 1
(Pre- or corequisite: COS 102, 102L or department approval) Covers anatomy, physiology, products, materials and implements related to hair analysis, hair and scalp disorders and treatments, related chemistry, client record keeping and safety.
COS 103L - Shampoo/Rinses/Scalp Treatment Lab 1
(Pre- or corequisites: COS 102, 102L, 103 or department approval)
Focuses on safety, preparation, procedures and practice related to hair analysis, treatment of hair and scalp disorders and client record keeping. (2.5 lab hours a week $=37.5$ lab hours a term )
(Pre- or corequisites: COS 103, 103L or department approval) Introduces anatomy, physiology, preparation, procedures, products, materials and implements related to hair analysis, applied chemistry, client consultation and record keeping.
COS 104L - Chemical Rearranging Lab
(Pre- or corequisites: COS 103, 103L, 104 or department approval)
Presents basic skills development in safety, preparation, procedures and practices, products, materials and implements, hair analysis, related chemistry, hair cutting, hair styling, care of wigs and hair pieces, client consulting and recommendations and record keeping. (2.5 lab hours a week $=37.5$ lab hours a term)

## COS 105 - Cutting/Hairstyling Theory

(Pre- or corequisites: COS 104, 104L or department approval) Introduces anatomy, physiology, preparation, products, materials and implements, hair analysis and client consultation, related chemistry, hair cutting, hair styling techniques, client consultation, recommendations, care of wigs and hair pieces and record keeping.

## COS 105L - Cutting/Hairstyling Lab

(Pre- or corequisites: COS 104, 104L, 105 or department approval)
Focuses on safety, preparation, procedures and practices, products, materials and implements, hair analysis, related chemistry, hair cutting, hair styling, care of wigs and hair pieces, client consulting and recommendations and record keeping. (2.5 lab hours a week $=$ 37.5 lab hours a term)

## COS 106 - Hair Coloring Theory

(Pre- or corequisites: COS 105, 105L or department approval) Covers anatomy, physiology; preparation, procedures, products, implements; hair analysis and client consultation; related chemistry; temporary, semi-permanent and permanent hair coloring; bleaching, special effects, client consultation and recommendations and record keeping.

## COS 106L - Hair Coloring Lab

(Pre- or corequisites: COS 105, 105L, 106 or department approval)
Presents basic skill development related to safety, use of products, materials and implements, hair analysis and client consultation, related chemistry, semi-permanent and permanent applications, hair coloring and special effects techniques, problem solving and record keeping. (2.5 lab hours a week $=37.5$ lab hours a term)

## COS 107 - Manicuring/Pedicuring Theory

(Pre- or corequisites: COS 106, 106L or department approval) Covers anatomy, physiology, preparation, procedures, products, materials and implements, massage, nail techniques, client consultation and recommendations, client record keeping and safety.

## COS 107L - Manicuring/Pedicuring Lab

(Pre- or corequisites: COS 106, 106L, 107 or department approval)
Stresses basic skill development related to safety, preparation, procedures and practices, products, materials and implements, massage, nail techniques, client consultation and recommendations and record keeping. (2.5 lab hours a week $=37.5$ lab hours a term)

## COS 112 - Facials Theory

(Prerequisites: COS 107, 107L or department approval) Covers anatomy, physiology, preparation, procedures, products, materials and implements, massage, facial treatments and makeup application, hair removal, eyelash techniques, light therapy, client consultation and recommendations, record keeping and safety.

Course Number/Course Name
Credit Hours

## COS 112L - Facials Lab

(Pre- or corequisite: COS 112 or department approval) Presents basic skill development in safety, use of products, materials and implements, facial treatments and makeup application, use of specialized equipment and techniques, eyelash techniques, hair removal, client consultation, recommendations, and record keeping. ( 2.5 lab hours a week $=37.5$ lab hours a term ) Course fee: \$50

## COS 113L - Sterilization/Sanitation/ Bacteriology Lab II

(Pre- or corequisites: COS 112, 112L, 113 or department approval)
Continues basic application of sterilization, sanitation and bacteriology techniques in a supervised lab setting. ( 2.5 lab hours a week $=37.5$ lab hours a term)

## COS 114L - Shampoo/Rinses/Scalp Treatments Lab II

(Pre- or corequisites: COS 113, 113L or department approval) Continues basic application of shampoo, rinses and scalp treatment techniques in a supervised lab setting. (2.5 lab hours a week $=37.5$ lab hours a term)

## COS 115L - Chemical RearrangingPerms and Relaxers Lab II

(Pre- or corequisite: COS 114L or department approval) Continues basic application of chemical rearranging, perms and relaxers techniques in a salon setting. ( 5 lab hours a week $=75$ lab hours a term)

## COS 116L - Cutting/Coloring/Hairstyling Lab II

(Pre- or corequisite: COS 115L or department approval) Continues basic application of hair cutting, coloring and styling techniques in a supervised lab setting. (7.5 lab hours a week $=$ 112.5 lab hours a term)

## COS 117L - Manicuring/Pedicuring Lab II

(Pre- or corequisite: COS 116L or department approval) Continues basic application of manicuring, pedicuring, massage and advanced nail techniques in a supervised lab setting. (5 lab hours a week $=75$ lab hours a term)

## COS 201L - Chemical RearrangingPerms and Relaxers Lab III

(Prerequisite: COS 117L or department approval)
Covers intermediate application of chemical rearranging, perms and relaxers in a supervised salon setting. ( 5 lab hours a week $=75$ lab hours a term) Course fee: $\$ 50$

## COS 202L - Hair Cutting Lab III

(Pre- or corequisite: COS 201L or department approval) Covers intermediate application of scissors, shears, razor and clippers, products, materials and implements in a supervised salon setting. (5 lab hours a week $=75$ lab hours a term)

## COS 203L - Hair Coloring Lab III

(Pre- or corequisite: COS 202L or department approval) Covers intermediate application of temporary, semi-permanent and permanent hair coloring techniques, bleaching, tinting, toning, frosting, special effects and problem solving in a supervised salon setting. ( 2.5 lab hours a week $=37.5$ lab hours a term)

## COS 204L - Hairstyling Lab III

(Pre- or corequisite: COS 203L or department approval) Covers intermediate application of wet styling, blow drying, finger waving, air waving, hair pressing, hair extensions, hair weaving, braiding and corn rowing techniques in a supervised salon setting. (2.5 lab hours a week $=37.5$ lab hours a term )

Course Number/Course Name
Credit Hours
COS 205L - Facials/Manicuring/Pedicuring Lab III
(Pre- or corequisite: COS 204L or department approval)
Covers intermediate application of massage, facial treatments and makeup applications, use of electric appliances, currents and specialized machines for treatments, artificial eyelashes, removal of unwanted hair, eyelash and brow tinting and light therapy techniques in a supervised salon setting. (10 lab hours a week $=150$ lab hours a term)

## COS 211 - State Laws/Regulations

(Prerequisite: COS 205L or department approval)
Presents state laws and regulations, professional image, employability skills, ethics, professional standards, State Board standards, jobseeking and retention skills, customer service, teamwork, problem solving and quality principles.

## COS 212 - Salon Operation Theory

(Pre- or corequisite: COS 211 or department approval) Focuses on opening a salon and business plan, written agreements, regulations, laws, salon operation, policies, practices, personnel, compensation, payroll deductions, use of telephone, advertising, retail and sales, client communication, public relations, insurance and salon safety.

## COS 212L - Salon Operation Lab (Externship)

(Pre- or corequisite: COS 212 or department approval)
Exposes student to salon business and retail sales concepts as outlined in the State Board standards upon completion of 75 percent ( 1,243 hours) of the course of study in cooperation with a TVI-approved employer. This externship may not exceed eight hours per day or one day per week. (7.5 lab hours a week $=112.5$ lab hours a term) Course fee: $\$ 50$

## COS 213-Advanced Salon Theory

(Pre- or corequisites: COS 212, 212L or department approval) Presents advanced theory applied to sterilization, sanitation, bacteriology, shampoo, rinses, scalp treatments, chemical rearranging, perms, relaxers, hair cutting, hair coloring, bleaching, hairstyling, facials, manicuring and pedicuring, community health issues, salon safety, problem solving and special projects.

## COS 213L - Advanced Salon Lab

(Pre- or corequisite: COS 213 or department approval) Offers advanced application of safety, shampoo, rinses, scalp treatments, chemical rearranging, perms and relaxers, hair cutting, hair coloring, bleaching, hairstyling, facials, manicuring and pedicuring or other areas with minimal supervision in a salon setting. (12.5 lab hours a week $=187.5$ lab hours a term $)$

## COS 214L - Hair Cutting Lab IV

(Pre- or corequisite: COS 201L, COS 202L or department approval) Covers advanced application of scissors, shears, razor and clippers, products, materials and implements in a supervised salon setting. ( 5 lab hours a week $=75$ lab hours a term )

## COS 215L - Hair Styling Lab IV

(Pre- or corequisite: COS 203L, COS 204L or department approval)
Covers advanced application of wet styling, blow drying, finger waving, air waving, hair pressing, hair extensions, hair weaving, braiding and corn rowing techniques in a supervised salon setting. (2.5 lab hours a week $=37.5$ lab hours a term)

Course Number/Course Name
Credit Hours

## COS 216L - Facials/Manicuring/ <br> Pedicuring Lab IV

(Pre- or corequisite: COS 204L, COS 205L or department approval) Presents advanced application of massage, facial treatments and makeup applications, use of electric appliances, currents and specialized machines for treatments, artificial eyelashes, removal of unwanted hair, eyelashes and eyebrow tinting and light therapy techniques in a supervised salon setting. ( 2.5 lab hours a week $=$ 37.5 lab hours a term)

## COS 296 - Special Topics

(Prerequisite: department approval)
Provides an in-depth study of problems and advanced techniques.

## COS 297 - Special Problems

Variable
(Prerequisite: department approval)
Focuses on a specific problem while working with an instructor.

## CP - Computer Technology Courses

## CP 100 - Introduction to Computer Programming

## (Prerequisite: MATH 099)

Provides preparation for first-term Computing Technology and gives overview of computer systems. Includes flow-charting, logic, data processing concepts and programming in QBasic. (3 theory hours + 1 lab hour a week)

## CP 101L - ANSI COBOL

(Prerequisites: CP 103 and 105)
Write structured programming projects directly related to business and accounting applications. Uses a mainframe computer system, the projects are designed, coded, debugged and executed. (4 theory +6 lab hours a week) Course fee: $\$ 10$ (This course will only be offered at JMMC in the fall, and at Main in the Spring)

## CP 103 - Mathematics for Computer Programmers

(Prerequisite: MATH 100B or higher)
Covers algebra fundamentals along with selected applications in business and management math. Illustrates computerized math applications. (2 theory hours +3 lab hour a week)

## CP 105 - Fundamentals of Computer Programming 6

(Prerequisites: RDG 099 and MATH 100B and CP 176; pre- or co-requisite ACCT 103)
Includes computer vocabulary, operating system concepts, structured programming techniques, programming logic and control using BASIC. ( 4 theory +6 lab hours a week) Course fee: $\$ 10$

## CP 106-Overview of Web Technologies

(Prerequisite: CP 176 or permission of director) Introduces topics such as basic Unix commands for manipulating and managing TVI web accounts, different web servers, client to web server interaction. Demonstration and incorporation of client side scripting (JavaScript, JScript, and VB Script). Java applets and server side scripting (ASP, ColdFusion and Perl). (2 theory +3 lab hours per week)

## CP 111L - Advanced ANSI COBOL

(Prerequisite: CP 101L)
Continues skill development using the ANSI COBOL language. Emphasizes sequential and indexed file processing, file maintenance, multi-dimensional table processing, sorts and interactive programming. (4 theory +6 lab hours a week) Course fee: $\$ 10$

## CP 113 - Survey of Computer Animation

Progresses from traditional cel animation through building freehand skills, use of paint software packages, digital media applications and introduces 3D-computer animation. (2 theory +3 lab hours a week)

Course Number/Course Name

## CP 117 - Web Site Maintenance

(Prerequisite: CP 106 or permission of director)
Introduces topics such as ease of use ratings, link verifiers,
performance tuning, and site statistics. ( 5 weeks; 2 theory +3 lab hours per week)

## CP 128 - Personal Computer Operating Systems

(Prerequisites: CP 176 or waiver exam; recommended corequisite for students planning on taking the $A+$ certification exam: ELEC 217)
Introduces major PC operating systems while preparing students for the software portion of the A+ certification exam. Includes MSDOS, Windows, and UNIX concepts. ( 2 theory +3 lab hours a week) Course fee: $\$ 10$ [Previously CP 216L]

## CP 132 - Introduction to Web Scripting

(Prerequisites: CP 105 and CIS 165 or permission of director) Covers the fundamentals of the Common Gateway Interface (CGI) protocol and scripting languages, to include PERL and JavaScript. Uses compiled programs and introduces CGI security concerns. (2 theory +3 lab hours a week)

## CP 133-Survey of Active Server Pages

(Prerequisite: CP 132 or permission of director)
Covers aspects of server side scripting using Active Server Pages. ( 5 weeks; 2 theory +3 lab hours per week)

## CP 134-Survey of ColdFusion

(Prerequisite: CP 132 or permission of director) Provides an introduction to one of the most common forms of "middle ware" in the Web environment. The focus will be on data manipulation via Allaire's ColdFusion. ( 5 weeks; 2 theory +3 lab hours per week)

## CP 135 - Advanced Web Scripting

(Prerequisite: CP 132)
Continues skill development with focus on integrating scripting into Web designs and structures. Develops both client and server application, incorporating many advanced Web page development techniques. (2 theory +3 lab hours a week)

## CP 150 - Data Structures

## (Prerequisite: CP 105 or permission of director)

Explores sequential, random, and indexed file structures, multidimensional arrays, structures, linked lists, stacks, queues, sorting, searching and other data structures. ( 2 theory +3 lab hours a week)

## CP 170-Techniques for Animation Text

(Prerequisites: ENG 101 and CP 177L or permission of director) Introduces concepts required to create a story element, with emphasis on animation applications including project board techniques, structure for the short application, use of screenwriting software, information on the direct wants and needs of production houses, and insights into legal aspects of the business. (2 theory +3 lab hours a week)

## CP 176 - Introduction to Technology Computer Applications

4
(Recommended prerequisite: typing proficiency)
Covers introductory computer hardware and software topics with a mix of lecture and hands-on instruction. Introduces operating systems (MS-DOS, Windows), software applications (word processing, spreadsheets) and database concepts with an emphasis on technology applications. (4 theory hours a week) Course fee: $\$ 15$

## CP 177L - Introduction to Computer Animation/Graphics

(Prerequisites: CP 176 and ART 106 or CP 113; pre- or corequisite: ART 121 or permission of director)
Explores various topics desirable in industry. Reviewed are Windows 95, Lightwave 3D-animation software, modeling,

## Course Number/Course Name

Credit Hours
texturing, lighting, animation and other bundled tools. Additional lab hours outside the regular class time are required. ( 2 theory +3 lab hours a week) Course fee: $\$ 15$

## CP 178L - Computer Animation I

(Prerequisites: CP 177L and ART 121; pre- or corequisite: ART 122)
Uses, extensively, Maya 3D computer animation software involving modeling, rendering, morphing, texture mapping, animation and image processing. Additional lab hours outside the regular class time are required. (2 theory +3 lab hours a week)
CP 179-Computer Animation II
(Prerequisites: CP 178L and CIS 262 and ART 122 and CP 170) Explores advanced techniques such as inverse kinematics, constraints, character building, particle emission and dynamic forces. Emphasizes team project participation. Additional lab hours outside the regular class time are required. (2 theory +3 lab hours a week) Course fee: $\$ 15$

## CP 180 - Computer Animation Strategies and Techniques

(Prerequisites: CP 177L and CIS 262 and ART 121; pre- or corequisite: ART 122)
Expands the use of Lightwave 3D animation software to professional applications. Emphasizes insights into the work environment and employer expectations. Additional lab hours outside the regular class time are required. (2 theory +3 lab hours a week)

## CP 181L - Alias/Wavefront Maya Certified Training

(Prerequisite: CP 178L or permission of director)
Continues coverage of Maya from Alias/Wavefront, a high-end computer programs for character animation, scene design and simulation. Creates realistic characters and scenes, as well as a variety of special effects. Also covers basic operations of the SGI Workstation platform, MEL (Maya Embedded Language) scripting and techniques for professional-quality animation demos using Maya. (2 theory +3 lab hours a week)

## CP 182 - Networking Topologies

(Network+ Certification Prep)
(Prerequisite: CP 128 or permission of director) Introduces building networks and running a network operating system. Uses the OSI model as a guide for study of cabling protocols, data link protocols (Ethernet, FDDI, ATM, etc.) and network protocols (IP and IPX). Introduces switches, bridges, gateways and routers. (2 theory +3 lab hours a week)

## CP 183 - Network Operating System (Network+Certification Prep)

(Prerequisite: CP 128 or permission of director) Introduces installing and administering the most common microprocessor-based NOS environments (Novell, Windows NT, etc.). Students run these NOS systems on a variety of data link protocols and install and maintain devices for inter-network communication. (2 theory +3 lab hours a week)
CP 205 - Basic Router Configuration
(Prerequisite: CP 182)
Introduces concepts of configuring routers, other layer 3 devices and their associated protocols in different network scenarios.
Prepares students for the Cisco Certified Networking Associate certification. (2 theory hours +3 lab hours a week)

## CP 206 - Local Area Network Management

## (Prerequisite: CP 205)

Emphasizes concepts of configuring and troubleshooting routers/ switches in a LAN environment. Prepares students for the Cisco Certified Networking Associate certification. (2 theory hours +3 lab hours a week)

## CP 207 - Wide Area Network Management

(Prerequisite: CP 206)
Emphasizes concepts of configuring and troubleshooting routers/ switches in a WAN environment. Prepares students for the Cisco Certified Networking Associate certification. (2 theory hours + 3 lab hours a week)

## CP 213 - Database Management (MS Access)

(Prerequisite: CP 105 or 176 or permission of director)
Presents general concepts, organization and application of database systems. Introduces the use of database management on the microcomputer. Includes designing database; accessing, searching and updating files; and designing and producing printed reports. Read and interpret written and oral instructions of a technical nature. (2 theory +3 lab hours a week) Course fee: $\$ 10$

## CP 214L - Report Program Generator III/400

(Prerequisite: a programming language or permission of director) Introduces the RPG III/400 programming language used in business organizations, focusing on the basic coding parameters. (2 theory + 3 lab hours a week)

## CP 217L - Personal Computer Assembler Language

(Prerequisites: CP 105 and 128)
Introduces assembler language programming using the microcomputer. (2 theory +3 lab hours a week) Course fee: $\$ 10$

## CP 218-Client/Server Technology (Oracle Forms I)

(Prerequisite: CP 221 or permission of director)
Covers theory of client/server and models of distributed computing. Lab assignments focus on creating and implementing client server applications using Oracle Internet Forms. (2 theory +3 lab hours a week)

## CP 220 - Advanced Database Concepts

## (Prerequisite: CP 213 or permission of director)

 Continues CP 213 in a multi-user network environment with emphasis on relational databases, custom forms, intermediate report design, OLE objects, advanced queries, SQL, macros and incorporating Visual Basic within Access. (2 theory + 3 lab hours a week)CP 221 - Oracle: SQL and PL/SQL
(Prerequisite: CP 213 or permission of director)
Designs and creates database structures to store, retrieve, update and display data in a relational database with SQL language. Create PL/SQL blocks of application code that can be used for data management applications. (2 theory +3 lab hours a week)

## CP 222 - Oracle: SQL and PL/SQL II

(Prerequisite: CP 221)
Covers SQL queries and PL program block. Prepares students for the Oracle OCP exams. (2 theory + 3 lab hours a week)

## CP 223 - Advanced Client/Server Apps (Oracle Internet Forms II)

## (Prerequisite: CP 221)

Covers advanced event driven client/server application programming in Oracle. Prepares students for the Oracle OCP exams. (2 theory +3 lab hours a week)

## CP 224 - Decision Support Systems <br> (Oracle Internet Reports)

(Prerequisite: CP 221)
Covers Oracle Internet report generation technology. Prepares students for the Oracle OCP exams. (2 theory +3 lab hours a week)

Course Number/Course Name
Credit Hours
CP 225 - Oracle Enterprise DBA IA (Admin)
(Prerequisite: CP 221)
Covers Oracle database administration with an emphasis on user management and security. Prepares students for the Oracle OCP exams. (2 theory +3 lab hours a week)

## CP 226-Oracle Enterprise DBA IB (Backup)

## (Prerequisite: CP 221)

Covers Oracle database backup and recovery. Prepares students for the Oracle OCP exams. (2 theory +3 lab hours a week)

## CP 227 - Oracle Enterprise DBA II (Tuning)

## (Prerequisite: CP 221)

Covers Oracle database performance tuning. Prepares students for the Oracle OCP exams. (2 theory +3 lab hours a week)
CP 228-Oracle Enterprise DBA III (Networking)
(Prerequisite: CP 221)
Covers Oracle Net8 Networking. Prepares students for the Oracle OCP exams. (2 theory +3 lab hours a week)

## CP 231 - Networking and Security Administration

## (Prerequisite: CP 275)

Emphasizes concepts of configuring Unix for networking and maximization of performance through network security. Prepares students for Linux certification. (2 theory hours +3 lab hours a week)

## CP 232 - Linux Application Installation and Troubleshooting

## (Prerequisite: CP 275)

Covers concepts to include install, maintain, and troubleshoot network-based applications/programs on a Unix platform. Prepares students for the Cisco Certified Networking Associate certification. (2 theory hours +3 lab hours a week)

## CP 235 - JAVA Programming I

(Prerequisite: CP 278B or permission of director) Accelerated introduction to JAVA programming language. Covers class design and implementation, the object-oriented programming, exception handling, threads, and database I/O. This course focuses on the presentation layer of the distributed object model. (2 theory +3 lab hours a week)

## CP 236-Object Oriented Systems Analysis and Design (UML)

(Prerequisites: CP 278A and 213 or permission of director)
Covers advanced object oriented techniques of systems analysis and design. Covers the UML (Unified Modeling Language) as a means for analyzing/designing systems. Apply techniques in analysis of sample and/or local systems. Emphasizes team project participation. (2 theory +3 lab hours a week)

## CP 237 - J AVA Programming II (JCert Exam Prep)

## (Prerequisite: CP 235)

Advanced coverage of the JAVA programming language. Course covers enterprise application programming for the Internet with a focus on the business layer of the distributed object model. Topics include JSP, EJB, and JDBC database connectivity. (2 theory +3 lab hours a week)

## CP 238 - JAVA Database Applications (Oracle JDeveloper)

(Prerequisite: CP 237)
Advanced coverage of the JAVA programming language. Course covers enterprise application programming with a focus on the data layer of the distributed object model. Topics include advanced JSP, EJB, and JDBC database connectivity and object-oriented database implementation using Oracle. (2 theory +3 lab hours a week)

Course Number/Course Name
Credit Hours
CP 251 - Computer Game Development
(Prerequisite: CP 177L or CP 278 B or permission of director) Focuses on a variety of Visual C++ and DirectX game programming techniques. Focuses on Lightwave 3D, Adobe PhotoShop and various other software applications to produce the game graphics. Digital sound and music production as applicable. Participation in group meetings and field trips in support of the gaming project. (2 theory + 3 lab hours a week) Course fee: $\$ 10$
CP 252 - Macromedia Flash Programming
(Prerequisite: CP 177L or CP 178L or CP 278B or permission of director)
Focuses on the use of Flash to program a variety of interactive Internet games. Emphasis will be placed on the algorithms and Flash functions necessary to produce different genres of games (i.e., puzzle games, trivia, and action/arcade games). (2 theory + 3 lab hours a week)

## CP 260L - Open GL Programming

(Prerequisites: CP 278A and CP 177L or permission of director) Covers use of graphics library interface that runs on a wide variety of platforms. Write graphics applications using the object-oriented 3D graphics developer tool kit. (2 theory +3 lab hours a week)

## CP 261L - Image Processing

(Prerequisite: CP 278A or permission of director) Use and apply PC and UNIX-based development environments. Includes applications on image processing, data manipulation and scientific visualization. (2 theory +3 lab hours a week)

## CP 262 - Video Editing/Post Production

(Prerequisite: CP 178L or permission of director)
Presents nonlinear videos editing techniques. Includes application on video and audio editing skills, compositing, special effects and broadcast quality production procedures. (2 theory +3 lab hours a week) Course fee: \$10

## CP 274L - Introduction to UNIX and WANs

(Prerequisites: CP 105 and 128 or permission of director) Introduces UNIX with emphasis on running a network. Includes the UNIX command line, X-Windows and connection/connection-less networking schemes (TCP/IP and NFS). Introduces Wide Area Network data delivery and protocols. (2 theory +3 lab hours a week) Course fee: \$10

## CP 275 - Advanced UNIX and WAN Administration

(Prerequisite: CP 274L or permission of director) Build and customize a UNIX host in a network environment and administering it remotely. Covers remotes access protocols (PPP, SLIP, etc.) and the mechanics of remote data delivery. (2 theory +3 lab hours a week)

## CP 278A - C++ Programming I

## (Prerequisite: CP 105 or permission of director)

Includes structured programming techniques, programming logic and control using $\mathrm{C}++$. Covers data types, variables, arithmetic, control statements, basic functions, pointers, arrays and structures. Students who have successfully completed similar introductory C++ programming courses, such as those at APS/CEC, may have this course waived and proceed to CP 278B. (2 theory +3 lab hours a week) Course fee: $\$ 10$

## CP 278B - C++ Programming II

(Prerequisites: CP 278A or permission of director) Continues coverage of $\mathrm{C}++$ programming. Covers structures, enumerated data types, $\mathrm{C}++$ function enhancements, classes and objects, inheritance and virtual functions. This advanced course provides a solid foundation in object-oriented programming methods. (2 theory +3 lab hours a week) Course fee: $\$ 10$

Course Number/Course Name
Credit Hours
CP 281L - C++ Programming III (Advanced 00P)
(Prerequisite: CP 278 B or permission of director)
Covers advanced programming including stacks, queues, linked lists and other computer science problems. (2 theory +3 lab hours a week) Course fee: $\$ 10$
CP 284 - Visual Basic I
(Prerequisite: CP 105 or a programming language or DDET 115L or permission of director)
Introduces the capabilities of the development environment and common programming techniques required to create simple, useful applications. (2 theory +3 lab hours a week)

## CP 285 - Troubleshooting Networks

(Prerequisite: CP 182 or permission of director)
Problems course. Students run a wide variety of applications over a network and apply troubleshooting techniques using software and LAN analyzing equipment. (2 theory +3 lab hours a week)

## CP 286 - Windows 2000 Server Administration

(Prerequisite: CP 183 or permission of director)
Emphasizes concepts of installing, configuring, and administering Windows server in a multi-server distributed processing environment. Prepares students for MCP certification. (2 theory hours + 3 lab hours a week)

## CP 287 - Visual Basic II (Client Server Database Applications)

## CP 288 - Windows Network Infrastructure

(Prerequisite: CP 286)
Emphasizes concepts of installing Windows and implementing Windows networking in a client/server environment. Prepares students for MCP certification. (2 theory hours + 3 lab hours a week)

## CP 289 - Windows Directory Services

(Prerequisite: CP 286)
Emphasizes concepts of implementing and administering Windows directory services infrastructure in a distributed processing environment. Prepares students MCP certification. (2 theory hours +3 lab hours a week)

CP 290 - Windows MFC Programming in C++
(Prerequisites: CP 278B or permission of director) Provides an introduction to what is known as MFC or Microsoft Foundation Classes. The focus will be on creating event-driven/ object-oriented projects. Students will create and integrate interface and program logic classes. This class focuses on the presentation layer of the object layer. ( 2 theory +3 lab hours a week)

## CP 292 - System Development (Demo Portfolio)

(Prerequisite: CP 235 or CP 236 or CP 281L or permission of director - Students working toward associate degree are encouraged to defer this course until completion of advanced programming courses)
Connects all previous attained skills to propose, design, build, document, test and demonstrate a working application in this capstone course. Students may choose to complete a project of limited scope for an external organization or to create a demo that solves a common business-computing problem. This demo portfolio will be posted on the Technologies web site and/or archived for presentation to potential employers. Students work under the guidance of a computer-programming instructor. Course can be replaced with approved cooperative education experience, with appropriate assessment from employer. (3 lab hours a week)

Course Number/Course Name
Credit Hours
CP 293 - Demo Reel Production (Demo Portfolio)
(Prerequisite: CP 262 or permission of director)
Creates a video demo reel. Reviews strategies for content, themes, packaging, editing, sound effects and presentation. Tailor demo reels to specific companies and areas of industry. Incorporates methods of job seeking and applications. (3 lab hours a week)

## CP 295 - Web Site Implementation

(Prerequisite: CP 135 or permission of director)
Creates a web site from conceptualization to implementation. Completed web site and portfolio will be presented to an academic team. (3 lab hours a week)

## CP 296-Topics

(Prerequisite: permission of director)
Topics vary based on the requests from the community and available software, hardware and instructors.

## CP 297 - Special Problems

(Prerequisite: permission of director)
The student and instructor define a specific problem in the area of the student's interest and directly related to the program. The student develops and executes a solution using analytical techniques appropriate to the problem. An oral presentation may be required.

## CP 298 - Internship

(Prerequisite: permission of director)
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.

## CP 299-Cooperative Education

(Prerequisite: permission of director)
In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate training program. The position is paid.

## CR - Court Reporting Courses

## CR 103A - Machine Shorthand I

(Prerequisites: RDG 099 or equivalent and AA 101 and 102 or 35 wpm typing speed on five-minute timing)
Presents keyboarding and computer-compatible, conflict-free machine shorthand theory. ( 5 theory +5 lab hours a week)

## CR 103L - Machine Shorthand I

(Prerequisites: RDG 099 or equivalent and AA 101 and 102 or 35 wpm typing speed on five-minute timing)
Presents keyboarding and computer-compatible, conflict-free machine shorthand theory. ( 5 theory +5 lab hours a week)

## CR 104A Machine Shorthand II

## (Prerequisites: CR 103A, BA 121)

Focuses on computer-compatible, conflict-free machine shorthand theory and vocabulary building. Open-exit course. Students may advance to CR 210A after reaching three 60 wpm literary and three 80 wpm literary. Enrollment limited to 45 weeks or three terms. (5 theory +5 lab hours a week)

## CR 104L - Machine Shorthand II

(Prerequisites: CR 103L, BA 121)
Focuses on computer-compatible, conflict-free machine shorthand theory and vocabulary building. Open-exit course. Students may advance to CR 210L after reaching three 60 wpm literary and three 80 wpm literary. Enrollment limited to 45 weeks or three terms. (5 theory +5 lab hours a week)

Course Number/Course Name
Credit Hours
CR 105 - Keyboard Skill-building
(Prerequisite: AA 107 or 45 wpm typing speed on five-minute timing)
Focuses on building speed and accuracy. Course fulfills NCRA's keyboarding requirement of 60 net wpm with no more than five errors on two five-minute timed writings. (5 lab hours a week) Course fee: $\$ 10$

## CR 122 - Word Power

Focuses on vocabulary, study of the dictionary, pronunciation, word origins, prefixes and suffixes, root elements, dissecting words, and vocabulary words. ( 7.5 weeks)

## CR 123 - Punctuation for Court Reporters

Covers fundamental rules for punctuating syntax and presents verbatim English as found in courtroom transcripts and modifies the rules to accommodate this English.

## CR 132 - Medical Terminology and Anatomy

(Prerequisite: RDG 099 or equivalent)
Covers medical terminology, using 350 Greek and Latin prefixes, suffixes, word roots, combining forms and human anatomy through video and text.
CR 210A - Machine Shorthand III
(Prerequisite: CR 104A)
Covers vocabulary building, machine shorthand theory, legal procedures, speed-building using testimony, literary and jury charge materials. Open-entry, open-exit course. Students may advance to CR 220L after reaching 100 wpm literary and testimony, and 120 wpm literary and testimony. Enrollment limited to 45 weeks or three terms. ( 5 theory +10 lab hours a week)

## CR 210L - Machine Shorthand III

(Prerequisite: CR 104L)
Covers vocabulary building, machine shorthand theory, legal procedures, speed-building using testimony, literary and jury charge materials. Open-entry, open-exit course. Students may advance to CR 220L after reaching 100 wpm literary and testimony, and 120 wpm literary and testimony. Enrollment limited to 45 weeks or three terms. ( 5 theory +10 lab hours a week)

## CR 220L - Machine Shorthand IV

(Prerequisites: CR 210L, CR 132)
Emphasizes medical terminology and dictation, vocabulary building and speed-building. Open-entry, open-exit course. Students may advance to CR 230L after reaching three testimony, literary and jury charge at 140 wpm and 160 wpm . Enrollment limited to 45 weeks or three terms. (5 theory +10 lab hours a week)

## CR 230L - Machine Shorthand V

(Prerequisite: CR 220L)
Emphasizes speed-building and vocabulary building. Open-entry, open-exit course. Students must pass three 5 -minute takes of literary at 180 wpm , three of jury charge at 200 wpm and three of testimony at 225 wpm , with a minimum of $96 \%$ accuracy and a transcription rate of at least 20 wpm . Enrollment limited to 45 weeks or three terms. ( 5 theory +10 lab hours a week)

## CR 240 - Legal Terminology

Presents concepts such as civil law, criminal law, the judicial system and Latin/legal terminologies. Course is occasionally offered through the Internet.
CR 250L - Computer-Aided Transcription (CAT)
Focuses on production of transcripts on computer-aided transcription software. ( 2 theory +3 lab hours a week) Course fee: $\$ 10$

Course Number/Course Name

## CR 251 - Stenotranscription

(Prerequisites: CR 104L and BA 150 or department approval) Emphasizes hands-on application using the computer, stenomachine and rapid-data entry software to produce a variety of medical, legal, corporate and police documents. (2 theory +3 lab hours per week) Course fee: $\$ 10$

## CR 252 - Medical/Legal Stenotranscription

(Prerequisite: CR 251)
Introduces the use of computer-aided transcription software and stenotranscription skills to transcribe legal and medical documents, correspondence, and instruments with correct formatting, punctuation, and spacing. (1 theory +3 lab hours per week)

## CR 253 - Litigation Support

Focuses on scanning and indexing documents and transcripts, creating and maintaining a legal-specific database and printing images to CD. (4 theory hours per week for 7.5 weeks)

## CR 260 - Court Reporting Procedures

(Prerequisites: CR 220L, CR 250L)
Covers depositions, administering oaths, handling exhibits, storing notes and applying ethics.

## CR 270 - Speed-building/Test Preparation

Focuses on speed-building and two- three- and four-voice testimony. Students need a minimum speed of 180 wpm literary and 225 wpm testimony. Preparation course for the state certification exam. (2 theory +3 lab hours per week)

## CR 296- Topics Course

1-3
Explores current topics in court reporting and stenotranscription.

## CR 297 - Special Problems

Variable
(Prerequisite: department approval)
Allows student and instructor to define a specific problem in the area of the student's interest and directly related to the program. The student develops and executes a solution using analytical techniques appropriate to the problem. An oral presentation may be required.

## CR 298 - Internship

(Prerequisites: CR 250L, passage of two five-minute dictation takes at 200 wpm on testimony material and department approval)
Provides students the opportunity to work at business or trainingrelated supervised work stations. Arranged by associate dean in student's final term. Students acquire a minimum of 75 clock hours of practical experience under the supervision of a certified shorthand reporter; a minimum of 40 hours spent in actual writing time. Intern is required to record and transcribe a 40-page saleable transcript.

## CR 298A - Internship

(Prerequisites: CR 251 and department approval)
Provides students the opportunity to work at business or trainingrelated supervised work stations. Arranged by associate dean in student's final term. Students acquire a minimum of 75 supervised clock hours producing saleable transcripts for a medical office, hospital, legal office, corporate word processing department, police department or publishing firm.

## CR 299-Cooperative Education

## (Prerequisites: CR 210L and department approval)

Provides students the opportunity to work a minimum of 150 hours in a paid training-related position. Student trainees are paid by the cooperating firm and are supervised jointly by TVI and the employer. ( 1 theory +9 lab hours a week)

Course Number/Course Name
Credit Hours

## CSCI - Computer Science Courses

## CSCI 098 - Computer Basics

(Half term) Provides opportunities to develop beginning computer skills in a half term course. Includes common word processing tasks and understanding computer system components. Introduces concepts used in many Adult and Developmental Education courses. (4 theory hours a week)

## CSCI 100 - Basic Keyboarding/Computer Skills

Emphasizes beginning keyboarding, computer concepts and basic word processing. Recommended for entry-level students. (3 theory hours + 1 lab hour a week)

CSCI 101 - Computer Literacy
Introduces computer hardware and software topics with a mixture of lecture and hands-on instruction: common user applications (e.g., word processing, spreadsheets, data bases), operating systems (e.g., Windows 3.1, Windows 95 ) and the basics of using networked computers (e.g., email and the Web). Typing proficiency useful but not required. Course fee: $\$ 15$.

## CSCI 151 - Introduction to Computer Programming 4 <br> (Prerequisite: MATH 121 with a grade of $B$ or better and MATH 150)

Introduces programming designed for those interested in programming as a career or as a useful problem-solving skill; the relationship between programming and problem solving, using programs written in C and C++. Course fee: $\$ 15$. (Previously offered as CSCI 155.)
CSCI 163 - Intermediate Computer Literacy
(Prerequisite: CSCI 101 or permission of instructor)
Emphasizes creating graphics and Web documents; research using the Internet. Course fee: $\$ 15$.

## CSCI 296 - Topics in Computer Science

(Prerequisite: RDG 100 and permission of instructor) Presents various topics. See Schedule of Classes.

## CST - Cultural Studies Courses

## CST 150 - Introduction to Cultural Studies

(Prerequisite: RDG 100)
Surveys a range of contemporary topics in global perspective, including gender, race, class and ethnicity. Explores non-dominant cultures and non-traditional social issues.

## CST 250 A,H,N,S - Ethnic Studies

(Prerequisite: RDG 100)
Investigates present day perspectives and historical and social conditions which have shaped and affected the lives of a specific group of American people. Emphasizes how these groups create mosaic of philosophy, art and identity. A: African American Studies; H: Chicano Studies; N: Native American Studies; S: Asian American Studies.
CST 296 - Topics in Cultural Studies
(Prerequisite: RDG 100)
Presents various topics. See Schedule of Classes.

## CTRG - Catering Courses

CTRG 170L - Catering
Covers basic knowledge and hands-on experience of how to plan, organize and set up catered functions. Includes basic knowledge of how to read and prepare recipes.

## DA - Dental Assistant Courses

## DA 101 - Dental Science I

(Prerequisites: RDG 100 and MATH 99 or equivalent, ENG 101, COMM 221. Corequisites: DA 102L, 104, 106L, 110L)
Student will study microbiology as it relates to control of infection and disease in dental environments and effective methods of sterilization and disinfectants. This course will instruct the student in anatomy, histology and physiology of the head, neck and body systems as they relate to dentistry.

## DA 102TL - Dental Materials and Application

(Corequisites: DA 101, 106L, 108L, 110L)
Introduction to the physical and chemical properties of dental materials and their application including placement of temporary restorations, cements, bases and liners, preliminary and final impression materials, composite and crown and bridge materials and procedures. There is a $\$ 40$ uniform fee for this course (2 theory \& 3 lab hours weekly)

## DA 104-Tooth Morphology, Histology and Recordings

(Corequisites: DA 101, 102L, 106L, 108L, 110L) Instruction in dental terminology as it relates to tooth morphology and histology, charting, numbering systems, cavity classification, oral diagnosis and treatment planning. (3 theory hours weekly)

## DA 106T/L - Chairside Procedures I

(Corequisites: DA 101, 102L, 104, 108L, 110L)
Theory and care of dental equipment, identification of instruments and their use, tray set-up, four-handed dentistry techniques and preparation for assisting in a clinical setting. (2 theory \& 3 lab hours weekly)

## DA 108T/L - Dental Radiology I

(Corequisites: DA 101, 102L, 104, 106L, 110L)
Production and projection of x-rays, operation and care of standard $x$-ray equipment, operational safety precautions, exposure and mounting of dental x -rays, darkroom procedures and the chemistry of processing films. (1 theory \& 3 lab hours weekly)

## DA 110T/L - Dental Practice Management and Patient Care

(Corequisites: DA 101, 102L, 104, 106L, 108L)
Introductory dental office management course designed to develop basic skills and background in all phases of dental reception functions and office management procedures to include: computer management, oral and written communication, bookkeeping skills, case presentation and financial arrangements, banking procedures and computing salaries and tax records. Emphasis on patient care including communication techniques, interviewing skills and conflict management. Includes clinical observation experiences. (1 theory \& 3 lab hours weekly)

## DA 112 Dental Science II

(Prerequisite: DA 110L. Corequisite: DA 114, 116L, 118L, 120C) Students will study pathology, prevention, nutrition and pharmacology as they relate to dentistry. Also included are applied psychology and communication skills with dental patients and co-workers. (3 theory hours weekly

## DA 114 - Dental Specialties

(Corequisites: DA 112, 116L, 118L, 120C)
Provides introduction into dental specialties with an emphasis on hands-on practice of DA functions that can be delegated in dental specialty offices. (3 theory hours weekly)

## Course Number/Course Name

Credit Hours
DA 116T/L - Chairside Procedures II
(Corequisites: DA 112, 114, 118L, 120C)
Provides advanced knowledge of the dental specialties and DA functions including hands-on training, instrumentation, chair-side techniques and patient management. Includes coronal polishing. (2 theory \& 3 lab hours weekly)

## DA 118T/L - Dental Radiology II

(Corequisites: DA 112, 114, 116L, 120C)
Production, processing and mounting of x-rays on patients. Record keeping essential to x -ray procedures in the dental office. Reading of dental radiographs and the procedures and reasons for intra oral radiographs and extra oral radiographs included. (1 theory \& 3 lab hours weekly)

## DA 120T/C - Clinical Application I

(Corequisites: DA 112, 114, 116L, 118L)
Clinical practice utilizing four-handed dentistry at chair-side including extended function in general dentistry delegated to the DA as designated by the New Mexico Dental Practice Act (coronal polishing, fluoride application, radiology). (2 theory \& 12 clinical hours weekly)
DA 124T/C - Clinical Application II
(Prerequisite: DA 120C)
Student will intern in dental offices to practice utilization of ourhanded technique in extended functions. (2 theory \& 20 clinical hours weekly)

## DDET - Design Drafting Engineering Courses

## DDET 102L - Manufacturing Methods

(Pre- or corequisite: ENG 101)
This course is designed as a comprehensive introduction to traditional and non-traditional manufacturing processes and provides students with a solid basis of understanding activities involved in the processing of metals, polymers, ceramics, and composites. (3 theory hours + 1 lab hour a week)

## DDET 106L - Basic CADD

Utilizing an advanced computer aided design laboratory, students will learn basic skills of the most popular software packages. Students will be able to generate, edit, dimension, and plot 2D engineering drawings. (2 theory +3 lab hours a week) Course fee: $\$ 15$
DDET 114L - Mechanical Detailing Drafting
Engineering Design and Manufacturing Analysis depends largely on Technical Graphics Communications. Students will complete projects using ASME Y14.5 standards, which include sketching techniques, geometric construction, visualization and layout, multiview projections, and auxiliary views, and dimensioning and tolerancing and introduction to GD\&T. (2 theory +3 lab hours a week)

## DDET 115L - Intermediate CADD

(Prerequisite: DDET 106L)
This intermediate level course, students will acquire more advanced CAD skills. Topics will include producing, viewing, and editing 2D and 3D drawings. The course is primarily geared toward application problems, which include individual and team projects. ( 2 theory +3 lab hours a week) Course fee: $\$ 15$

## DDET 116L - Basic Electronic Drafting

## (Prerequisite: DDET 114L)

Presents electronic drafting fundamentals including symbolic representation of electronic components and devices, block and connection diagramming, cable drawings and circuit schematics. Includes basic electronics theory and mathematics applications. (2 theory +3 lab hours a week)

Course Number/Course Name
Credit Hours

## DDET 201L - Mathematics of Mechanics

(Prerequisite: MATH 121 or 150)
This course is designed for students who are preparing for technical or scientific careers. An analytical approach to problem solving is emphasized. Students will learn how to analyze the geometric relationships among points, lines, and planes in space. Advanced applications of trigonometry in design engineering problems and dynamic mechanisms will be covered. (2 theory + 3 lab hours a week)

## DDET 205L - Machine Design Layout

(Prerequisites: DDET 114L, 115L; pre- or corequisite: DDET 201L or MATH 123)
Apply machine design principles including fixed and removable fastening techniques, dimensioning and tolerancing for assembly; GD\&T, relational functions of bearings, gears, cams, belts, pulleys and shafts; and parts list development. Introduces force vectors and stress and strain. 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

(Prerequisite: DDET 205L)
Focuses on science of three-dimensional location, clamping and holding of work for machining and assembly. Covers cams, levers, screwlocks, air and hydraulic devices. Students make various designs in the TVI machine shop. (3 theory +3 lab hours a week)

## DDET 211L - Electromechanical Drafting

(Prerequisite: DDET 205L; pre-or corequisite: DDET 215L) Includes the study, experimentation, design and drafting of electromechanical devices and systems. Covers principal components of hydraulic, pneumatic drive systems and control devices in a hands-on laboratory. A major design project is required. (1 theory +5 lab hours a week)

## DDET 215L - Technical Computer Applications 3

Using solid modeling, the current state-of-the-art in CAD, the student will learn to produce realistic design of parts with volume, surface and edges in which both interior and outer surfaces are represented. (2 theory +3 lab hours a week)

## DDET 216L - Dimensional Metrology

(Prerequisite: DDET 114L or MATT 112)
Make direct and indirect measurements to 50 millionths of an inch. Concentrate on linear and angular unit measurements. Uses equipment in electrical, decibel and PPM measurements. Includes SPC and CMM practicums. (3 theory +3 lab hours a week)

## DDET 220L - Statics and Strengths of Materials

(Prerequisites: DDET 201L or MATH 123 and ENG 119) Analyze distribution of forces as applied to strengths of materials and formulate relationship between external forces and internal responses and stress strain. Evaluate mechanical properties of material in laboratory conditions. (3 theory +5 lab hours a week)

## DDET 284 - Geometric Dimensioning and Tolerancing

Covers the design and use of gauges, fixtures and tools for inspection using GD\&T specifications to meet ASME-Y14.5 standards. (3 theory hours a week)

## DDET 296 - Topics

## (Prerequisite: permission of program chair)

Topics offered depend on requests from the community and available instructors.

Course Number/Course Name
Credit Hours

## DDET 297 - Special Problems

(Prerequisite: permission of program chair)
The student and instructor define a specific problem directly related to the program in the area of the student's interest. The student develops and executes a solution using analytical and drafting techniques appropriate to the problem. An oral presentation may be required.

## DDET 298 - Internship

(Prerequisite: permission of program chair)
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.

## DDET 299-Cooperative Education

## (Prerequisite: permission of program chair)

In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate training program. The position is paid.

## DE - Data Entry Courses

DE 101 - Data Entry Skill-building
(Prerequisites: AA 101 or 35 wpm typing speed on a five-minute timing, RDG 099 or equivalent, ENG 099 or equivalent, and MATH 099 or equivalent)
Develops speed and accuracy for computer data entry applications. Open-exit course ( 1 theory +4 lab hours a week for 7.5 weeks)

## DETC - Diesel Equipment Technology Courses

DETC 103 - Manual Shift Transmissions Theory 1
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Covers shop safety, operation and theory of manual shift transmissions.
DETC 103L - Manual Shift Transmissions Lab
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Presents shop safety, disassembly, evaluation, assembly and adjustment of manual shift transmissions used in trucks. Also covers single and twin countershaft transmissions, auxiliary transmissions and transfer gear cases. (5 lab hours a week $=75 \mathrm{lab}$ hours a term)

## DETC 104 - Drive Axles, Brakes and Automatic Transmissions Theory

(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Emphasizes safety, operation of drive axles and steering axles, air and hydraulic brakes and automatic transmissions.

## DETC 104L - Drive Axles, Brakes and Automatic Transmissions Lab

(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Presents shop safety and disassembly, evaluation, assembly and adjustment of automatic transmissions, drive axles, clutches and other drive train components. Air and hydraulic brake system components are disassembled, evaluated and reassembled. (7.5 lab hours a week $=112.5$ lab hours a term)

## DETC 105 - Hydraulic Systems Theory

(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Emphasizes safety and operation of hydraulic systems and components.

Course Number/Course Name
Credit Hours
DETC 105L - Hydraulic Systems Lab
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Presents shop safety, disassembly, evaluation and assembly of hydraulic pumps, valves, actuators and hydraulic circuits used in the heavy-equipment industry. Covers hydrostatic transmissions and in-line circuit testers. ( 5 lab hours a week $=75$ lab hours a term)
DETC 111 - Diesel Engine Overhaul Theory 1
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Emphasizes diesel engine operating principles. Covers operation and troubleshooting procedures for blocks, crankshafts, camshafts, rods, bearings, pistons, cylinder heads, lubrication systems, cooling systems, fuel systems, air induction and exhaust systems. Stresses job seeking and retention skills.
DETC 111L - Diesel Engine Overhaul Lab
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Covers engine disassembly, evaluation and reassembly techniques. Engines are assembled to manufacturer's recommended specifications then operated and adjusted on a test stand. (7.5 lab hours a week $=112.5$ lab hours a term)

## DETC 112 - Precision Measurement and Component Repair Theory

(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Presents uses of micrometers and dial indicators. Measurements are done on engines 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.

## DETC 112L - Precision Measurement and Component Repair Lab

(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval; prerequisite: DETC 102 or department approval; pre- or corequisite: DETC 111)
Presents the uses of micrometers and dial indicators. Measurements are done on engines 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. (5 lab hours a week $=75$ lab hours a term)

## DETC 113 - Diesel Engine Tune-up and Testing Theory

(Prerequisites: RDG 099, MATH 097 or department approval) Covers safety, tune-up and diagnostic principles and practices.

## DETC 113L - Diesel Engine Tune-up and Testing Lab

Introduces engine adjustments and tune-ups on major brands of engines. Practice troubleshooting skills on engines in operating condition. (5 lab hours a week $=75$ lab hours a term)

## DETC 201 - Diesel Electrical Theory

Covers shop safety and diagnosis and troubleshooting procedures of electronic systems and diesel components.

## DETC 201L - Diesel Electrical Lab

(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Presents shop safety and diagnostic and troubleshooting procedures of electronic components and diesel systems. (7.5 lab hours a week $=112.5$ lab hours a term)

Course Number/Course Name
Credit Hours
DETC 202 - Diesel Fuel Injection Theory
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Reviews safety, diagnosis, troubleshooting and repair of fuel injection systems and diesel components are reviewed.
DETC 202L - Diesel Fuel Injection Lab
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Covers safety and diagnosis, troubleshooting and repair procedures on fuel injection systems and diesel components. (5 lab hours a week $=75$ lab hours a term)

## DETC 203 - Transport Refrigeration/ Air Conditioning Theory

(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval; pre- or corequisite: DETC 201 or department approval)
Presents shop safety and diagnostic, troubleshooting and repair procedures of transport refrigeration and air conditioning systems.

## DETC 203L - Transport Refrigeration/ Air Conditioning Lab

(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Introduces shop safety while learning diagnostic, troubleshooting and repair procedures on transport refrigeration and air conditioning systems. ( 5 lab hours a week $=75$ lab hours a term)

## DETC 296-Special Topics

(Prerequisite: department approval)
Provides an in-depth study of advanced techniques.
DETC 297-Special Problems Variable
(Prerequisite: department approval)
Focuses on a specific problem while working with an instructor.

## DMS - Diagnostic Medical Sonography Courses

## DMS 101 - Introduction to Diagnostic Medical Sonography

(Prerequisites: Program director approval, MATH 121; pre- or corequisites: BIO 237/247L, ENG 101, Humanities elective, PHYS 151/151L; corequisite: DMS 102L, DMS 210)
Presents general information about the profession, credentialing, work environments and relationship to other health care professionals.

## DMS 102L - Medical Concepts

(Pre- or corequisites: BIO 237/247L, ENG 101, Humanities elective, PHYS 151/151L; corequisite: DMS 101, DMS 210) Provides information about medical terminology, Sonographic/other non-invasive diagnostic vascular terminology, pertinent clinical signs, symptoms and laboratory tests, diagnostic testing protocols related to specific disease conditions, medical ethics, pertinent legal issues/principles, professional scopes of practice, trends in health care systems. (3 hours theory +3 hours lab) Uniform fee: $\$ 65$

## DMS 103 - DMS Pathophysiology

(Prerequisites:DMS 101, DMS 102L, DMS 210; Pre- or corequisite:BIO 238/248L, corequisites: DMS 120/120C, DMS 130) Presents the physiology of blood flow dynamics, pertinent pathology and pathophysiology, biologic effects of ultrasound and pertinent in-vitro and in-vivo studies.
(Prerequisites:DMS 101, DMS 102L, DMS 210; pre- or corequisite: BIO 238/248L; corequisites: DMS 103, DMS 130) Presents sonographic examinations of abdomen, superficial structures, non-cardiac chest and the gravid and non gravid pelvis utilizing real-time equipment with both transabdominal and endocavitary transducers, Doppler, and color Doppler display modes. Focuses on normal anatomic structures. Includes six hours per week of clinical experience. ( 3 hours theory +6 clinical hours)

## DMS 130-Sonographic Physics I

(Prerequisites:DMS 101, DMS 102L, DMS 210; pre- or corequisite: BIO 238/248L; corequisites: DMS 103, DMS 120/120C) Introduces acoustical physics, sound production and propagation, interaction of sound and matter, instrument options and transducer selection, principles of ultrasound instruments and modes of operation, operator control options. Includes introduction to Doppler principles and applications.

## DMS 210 - Cross Sectional Anatomy

(Pre- or corequisites: BIO 237/247L, ENG 101, Humanities elective, PHYS 151/151L; corequisite: DMS 101, DMS 102L)
Presents cross sectional anatomy and embryology.
DMS 211 - Patient Care/Quality Control
(Prerequisites: COMM 221, DMS 103, DMS 120/120C, DMS 130; corequisites: DMS 220/220C, DMS 230)
Presents infection control and universal precaution procedures and pertinent patient care procedures including psychological and emergency support. Presents administrative procedures such as quality control, records maintenance and professional responsibilities.

## DMS 220/220C - General Sonography II

(Prerequisites: DMS 103, DMS 120/120C, DMS 130; corequisites: DMS 211, DMS 230)
Provides theory and practical experience with sonographic examinations of abdomen, superficial structures, non-cardiac chest and the gravid and non gravid pelvis using real-time equipment. Focuses on abnormal conditions. Includes nine hours per week of clinical experiences. (3 hours theory +12 clinical hours)

## DMS 230-Sonography Physics II

(Prerequisites: DMS 103, DMS 120/120C, DMS 130; corequisites: DMS 211, DMS 220/220C)
Presents the physics and principles of Doppler techniques for recording static and dynamic images and acoustical artifacts.
DMS 260C - General Sonography Internship
(Prerequisites: DMS 211, DMS 220/220C, DMS 230; Corequisite; DMS 270L)
Includes supervised clinical experiences within a healthcare setting. (36 clinical hours weekly)

## DMS 270L - Clinical Seminar

(Prerequisites: DMS 211, DMS 220/220C, DMS 230; Corequisite; DMS 260C)
Includes weekly case study discussions and conferences. Review of program courses and preparation for National Registry examinations. (3 lab hours weekly)

## DRFT - Drafting Courses

## DRFT 100 - Introduction to Drafting

Introduces basic concepts of drafting. Helps prepare students for Architectural/Engineering Drafting Technology, Construction Technology, Design Drafting Engineering Technology and related programs. (3 theory hours + 1 lab hour a week)

Course Number/Course Name
Credit Hours

## ECM - E-Commerce Courses

## ECM 101 - Web Accounting

(Prerequisites: ACCT 101A, ECM 105, 176 or department approval)
Introduces Web-based accounting terminology, accounting transactions, credit card accounting, inventory, purchasing, auditing and billing.

## ECM 102 - Internet Customer Service

(Pre-or corequisite: ECM 176 or department approval)
Focuses on Web-based customer service for growing and maintaining a loyal customer base, as well as continually attracting new customers. Topics include Web customer service, timely transactions and convenience issues.

## ECM 105 - Web Business

(Pre- or corequisite: ECM 176 or department approval) Focuses on how an online business is set up, organized and operated. Topics include electronic payments, web business models (auction, mall, broker, advertising, etc.), security, privacy, order processing and store operation.

## ECM 140 - Web Catalogs

(Prerequisites: ECM 105, 176, CIS 165 or 191, 156, or department approval)
Covers how to design and manage online catalogs. Topics include the integration of graphics, product descriptions, product selections and catalog management to create an online catalog.
ECM 150 - Wireless Web
(Prerequisites: ECM 105, 176, CIS 165 or 191, 156 or department approval)
Discusses how to design and manage a Web Site supporting user access by wireless devices such as Personal Digital Assistants (PDA). Topics will include Wireless Application Protocol (WAP), Handheld Device Markup Language (HDML), Wireless Markup Language (WML) and other industry trends.

## ECM 176 - Introduction to Internet Commerce

Introduces E-Commerce business models and payment systems. Internet operation and concepts including domain naming, ISP, ASP, FTP, email, routing, bandwidth and security are presented. (5 weeks; 2 theory +3 lab hours a week) Course fee: $\$ 5$. [Previously offered as MMS 176]

## ECM 201 - E-Commerce Business Planning

(Prerequisites: ECM 105, 176 or department approval)
Examines the differences between a traditional business and an online business as they apply to the planning and financial analysis for creating an online business or developing an online extension to a traditional business. [Previously offered as ECM 101]

## ECM 220 - Web Marketing

(Pre- or corequisite: ECM 176 or department approval) Covers Internet marketing topics such as designing and communicating for customer loyalty, product or service uniqueness, segmenting and targeting markets, establishing an online presence, developing a marketing plan and reshaping business and communication in an online market.

## ECM 223 - Online Payment Systems

(Prerequisites: ECM 105, 176 or department approval) Covers methods for making electronic payments for online businesses. Topics include credit cards, merchant accounts, personal accounts, digital wallets, micro payments and use of digital signatures and encryption.

## ECM 224 - Knowledge Management

Examines the collection, distribution and analysis of information for better business decision processes using online data sources.

## ECM 226 - Online Business Law

(Prerequisites: ECM 105, 176 or department approval)
Examines major legal issues such as electronic information, information security and regulation of content/conduct. Interstate commerce issues such as purchasing and online transactions are introduced.

## ECM 260-Business Web Security

(Prerequisites: ECM 105, 176 or department approval) Presents an overview of security, policies and practices to minimize risk to business web sites.

## ECM 270 - Web Site Management

(Prerequisites: ECM 105, 176 or department approval) Introduces a team approach to managing web sites. Coordinating the efforts of a multi-disciplinary team within an existing infrastructure is stressed.

## ECM 280-Web Customer Identification

(Prerequisites: ECM 102 105, 176 or department approval) Employs techniques for collecting and managing customer data. The design of cookies, mailbots, active forms and customer databases are introduced. Policies and practices to address customer privacy issues are presented.
ECM 296 - Topics Course
Examines current topics in e-commerce.

## ECM 297-Special Problems <br> Variable

(Prerequisite: department approval)
Requires student and instructor to define a specific problem in the area of the student's interest and directly related to the program. Student develops and executes a solution using analytical techniques to the problem. An oral presentation may be required.

## ECM 298 - Internship

(Prerequisite: department approval)
Requires a minimum of 150 work hours at a business or trainingrelated supervised workstation. If the student is currently employed in area of study, the 150 hours must involve a new learning experience. Students are not paid for their work but are supervised jointly by TVI and the company. (1 theory +9 lab hours a week)

## ECM 299-Cooperative Education

(Prerequisite: department approval)
Requires a minimum of 150 work hours at a business or trainingrelated supervised workstation. If the student is currently employed in area of study, the 150 hours must involve a new learning experience. Student trainees are paid by the cooperating firm and supervised jointly by TVI and the employer. (1 theory +9 lab hours a week)

## ECON - Economics Courses

ECON 101 - Introduction to Economics
(Prerequisite: RDG 100)
Introduces the theories, history, and relationships of economics.

## ECON 200 - Macroeconomics

(Prerequisite: RDG 100)
Surveys theories and problems of economic policy, including the contrast of the Classical and Keynesian models, money and banking, inflation, unemployment, and economic growth.

Course Number/Course Name
Credit Hours

## ECON 201 - Microeconomics

(Prerequisite: RDG 100)
Emphasizes laws of demand and supply and the workings of the price systems in a free market. Applies basic economic theories to problems of production, monopoly, taxation, consumer welfare, and the environment.

## ECON 296 - Topics in Economics

(Prerequisite: RDG 100)
Presents various topics. See Schedule of Classes.

## EET - Electronics Engineering Technology Courses

## EET 107L - Graphics and Analytical Methods

## (Pre- or corequisite: MATH 150 or 121)

Study of mechanical and electronic drafting methods including schematic preparation, printed circuit layout, chassis definition and wiring. Lab time is devoted to techniques required to prepare drawings. Experience in word processing, spreadsheet preparation, graphics, data base preparation and CAD. (2 theory +3 lab hours a week) Course fee: \$15

## EET 109L - Circuit Analysis I

(Pre- or corequisites: ENG 101, EET 107L)
Analyze passive DC circuits using Ohm's Law, Kirchhoff's Laws, source conversions, network theorems and branch/mesh/nodal analysis. Includes transient analysis of R-C and R-L circuits along with concepts of energy, power and efficiency. Computers are used. (3 theory +5 lab hours a week)

## EET 113L - Structured Computer Programming

(Prerequisite: MATH 121 or 150)
Introduces beginning computer programming using engineering applications. (2 theory +2.5 lab hours a week) Course fee: $\$ 15$

## EET 117L - Digital Electronics I

(Prerequisite: EET 109L)
Analyze and design combinational logic and integrated circuits using Boolean algebra, Karnaugh maps and logic diagrams. Study number systems, binary codes and code conversions along with flip flops, multivibrators and circuit applications. Lab work emphasizes wiring and troubleshooting skill. (3 theory +1 lab hours a week)

## EET 119L - Circuit Analysis II

(Pre- or corequisites: ENG 119, MATH 123. Knowledge of CAD is desirable.)
Study passive AC circuits with dependent and independent sources along with network theorems, phasor analysis, AC measurements, power factor analysis/correction, sweep generation usage and Fourier series. Computers are used for complex mathematical problem solving, spreadsheet preparation, graphics, word processing and CAD. (3 theory +5 lab hours a week)
EET 207L - Digital Electronics II
(Prerequisite: EET 117L)
Study logic circuit decoders, encoders, multiplexers, counters and registers along with ADCs, DACs, RAM, ROM, PLDs and applications. (3 theory +1 lab hours a week)
EET 208L - Microprocessors
(Prerequisite: EET 113L; pre- or corequisite: EET 207L) Study in depth microprocessors and microcomputers with emphasis on machine and assembly language programming. Interrupts and DOS entry points are introduced. (3 theory +3 lab hours a week)
(Pre- or corequisite: EET 119L)
Study diodes, bipolar transistors, FETs and circuits including rectifiers, zener diode regulators, clippers, clampers and amplifiers. Stresses transistor modeling and circuit analysis/design along with computer use for circuit analysis, spreadsheet preparation, graphics and word processing. (3 theory +5 lab hours a week)

## EET 218L - Microprocessor Interfacing

(Prerequisites: EET 208L, 209L)
Study I/O devices including printers and protoboard circuits to a microcomputer. Prepare and present documentation describing system operation and organization along with block diagrams, schematics and structured software. (2 theory +2.5 lab hours a week)

## EET 219L - Electronic Systems

(Prerequisite: EET 209L)
Study electronic system schematics 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. Presents video monitor basics and introductory transmission line theory. Use computers for advanced circuit analysis, instrument control, data logging and word processing. (3 theory +5 lab hours a week)

## EET 296 - Topics

(Prerequisite: open to advanced Electronics students)
The topics depend on the requests from the community.
EET 297 - Special Problems
(Prerequisite: enrolled only in 200-level technical courses and/or permission of program chair)
Define with the instructor a specific problem directly related to the program in the area of the student's interest. Develop and execute a solution using analytical and computer-aided techniques appropriate to the problem. An oral presentation may be required.

## EET 298 - Internship

(Prerequisite: permission of program chair)
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.

## EET 299 - Cooperative Education

(Prerequisite: permission of program chair)
In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate training program. The position is paid.

## ELEC - Electronics Courses

## ELEC 100 - Introduction to Electronics for Technologies/Trades

Provides preparation for first-term courses that have an electricity and electronics emphasis. Covers circuit analysis, magnetism, generators, inductance, capacitance and digital. Develops skills in critical thinking and problem solving. ( 3 theory hours +1 lab hour a week)

## ELEC 103A - Electronics Fundamentals A

(Recommended corequisite: ELEC 104 or strong mathematics background or permission of director)
Covers the basic concepts of DC electronics with emphasis on Ohm's Law, Kirchhoff's Law, circuit analysis, component application and troubleshooting. Construct circuits from schematic diagrams and use multimeters in the lab. ( 2 theory +6 lab hours a week) Course fee: \$15

Course Number/Course Name
Credit Hours

## ELEC 103B - Electronics Fundamentals B <br> (Prerequisite: ELEC 103A)

Covers the basic concepts of AC electronics with emphasis on Ohm's Law, Kirchhoff's Law, circuit analysis, and component application. Construct, analyze, and troubleshoot AC circuits with multimeters, oscilloscopes and function generators in the lab. (2 theory +6 lab hours a week)

## ELEC 103L - Electronics Fundamentals

(Recommended corequisite: ELEC 104 or strong mathematics background)
Covers the basic concepts of DC and AC electronics with emphasis on Kirchhoff's Law, circuit analysis and component application with troubleshooting. Uses oscilloscopes, function generators and multimeters and construct circuits from schematic diagrams. ELEC $103 \mathrm{~L}=$ ELEC 103A + ELEC 103B (5 theory + 9 lab hours a week) Course fee: $\$ 15$

## ELEC 104 - Electronics Mathematics

(Prerequisite: MATH 100B or sufficient math placement score) Includes selected topics from algebra, geometry, and trigonometry that support the Technologies programs. Also includes metric conversions, simultaneous linear equations, complex numbers, the impedance triangle and exponential and logarithmic functions. (4 theory hours a week)
ELEC 105L - Digital Circuits
(Recommended corequisite: ELEC 104 or strong mathematics background) Covers the fundamental concepts and applications of digital logic circuits along with number systems and Boolean algebra. Uses basic logic gates and MSI, LSI circuits to develop operational digital circuits. ( 2 theory +3 lab hours a week)

## ELEC 114A - Semiconductor Devices A

(Prerequisites: ELEC 103L, MATH 120)
Covers the basic concepts and applications of semiconductors, rectifier circuits, transistor biasing techniques, AC circuits and transistor regulated power supplies. (2 theory +3 lab hours a week)

## ELEC 114B - Semiconductor Devices B

(Prerequisite: ELEC 114A)
Covers field effect transistor circuits, op-amp theory, linear and non-linear op-amp circuits and frequency effects. (2 theory +3 lab hours a week)

ELEC 114L - Semiconductor Devices
(Prerequisites: ELEC 103L, MATH 120)
Introduces semiconductor devices, diodes, transistors, op-amps and JFETS, and their application in simple power supplies and amplifiers. Students construct, analyze and troubleshoot semiconductor circuits. (4 theory +6 lab hours a week)

## ELEC 118L - Electromechanical Devices

(Prerequisites: ELEC 103L, 104, 105L, MATH 120)
Presents theory and application of mechanical devices and their control circuits. Includes hydraulics, pneumatics, vacuum, AC and DC motors, stepper motors and servomechanisms. Students assemble, operate and troubleshoot small-scale electromechanical systems. (4 theory +6 lab hours a week)
ELEC 203L - Introduction to Microprocessors
(Prerequisites: ELEC 118L, CP 176)
Focuses 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. Students build individual buffered interfaces that connect with a PC's I/O backplane for their custom I/O applications. (2 theory +6 lab hours a week)

Course Number/Course Name
Credit Hours
ELEC 205L - Analog Circuits
(Prerequisite: ELEC 114L)
Covers circuitry involved in an analog system. Introduces discrete transistor circuits and classes of operation. Presents signal generation and active filters using operational amplifiers. Reviews the fundamentals of modulation and demodulation. (2 theory +6 lab hours a week)

## ELEC 214L - Troubleshooting Techniques

(Prerequisite: ELEC 205L or equivalent)
Focuses on systematic analysis to locate problems. Apply troubleshooting techniques to a complete electronic system. (2 theory +3 lab hours a week)

## ELEC 217 - Upgrading and Repairing PCs <br> (Recommended corequisite: CP 176 or permission of director)

 Covers basic aspects of computer repair, troubleshooting techniques with and without software, modification and replacement.Emphasizes microcomputers and related hardware. (2 theory +3 lab hours a week) Course fee: $\$ 15$
ELEC 220 - Digital Signal Processing Systems
(Prerequisites: ELEC 203L, 205L)
Covers op-amp theory, applications and limitations, analog circuit analysis and filtering techniques, including passive, active and digital filters. Presents interfacing methods between analog signals and digital computers. Includes address decoding, DAC and ADC applications, parallel and serial interfaces and transmission line theory. ( 4 theory +6 lab hours a week)

## ELEC 221 - Advanced Upgrading and Repairing PC's 3

 (Prerequisite: ELEC 217)Includes a more advanced aspect of computer troubleshooting techniques, repair, and modifications. Emphasizes A+Certification, which is an industry-recognized credential. (2 theory +3 lab hours a week) Course fee: $\$ 15$

## ELEC 223 - RF/Consumer Electronics

(Prerequisites: ELEC 114L, 205L)
Introduces radio frequency communication theory, circuits and problems. Covers analog and digital video and audio transmission, recording and playback methods, and equipment with emphasis on alignment, troubleshooting and repair. (4 theory +6 lab hours a week)

## ELEC 276L - Soldering Techniques

Introduces non-destructive printed circuit board repairs and component replacement techniques using a modern repair center to learn high-reliability soldering and desoldering techniques. ( 7.5 wks; 1 theory + 3 lab hours a week) Course fee: $\$ 15$

## ELEC 277L - Advanced Soldering Techniques

(Prerequisite: ELEC 276L)
Presents advanced concepts of soldering using a modern repair center to learn high-reliability surface mount technology (SMT) soldering and desoldering techniques. Must have good visual perception. (7.5 wks; 1 theory +3 lab hours a week) Course fee: $\$ 15$

## ELEC 279 - Electronics Refresher

(Prerequisite: completion of an electronics program or equivalent) Review electronics fundamentals, including basic components, semiconductors, op-amps, digital electronics and microprocessors.

## ELEC 282 - Pulsed Power

(Prerequisite: ELEC 114L or permission of director)
Covers generation, transmission and measurement of high-voltage and pulsed power systems.
ELEC 296 - Topics

Course Number/Course Name
Credit Hours

## ELEC 297 - Special Problems <br> (Prerequisite: advanced Electronics student)

The student is given a problem to investigate and solve. The student designs the solution using a combination of techniques.

## ELEC 298 - Internship

3
(Prerequisite: permission of the director)
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.

## ELEC 299 - Cooperative Education

(Prerequisite: permission of the director)
In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate training program. The position is paid.

## ELTR - Electrical Trades Courses

ELTR 101 - Electrical Theory I
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval; pre- or corequisite: ELTR 102)
Covers the basic concepts of DC and AC theory with emphasis on electron theory, units of electrical measurement, NEC terminology, and selection of branch circuit conductors.
ELTR 102 - Electrical Math I
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval)
Applies basic arithmetic functions, electrical formulas, calculations of material and circuit load requirements, rules for series, parallel and combination circuits and mechanical work and power.

## ELTR 103L - Electrical DC/AC Lab

(Pre- or corequisites: ELTR 101, 102 or department approval) Emphasis is placed on safety. Covers electrical circuitry, meters, power sources, conductors, insulators, reactive circuits and application of the National Electrical Code. (7.5 lab hours a week = 112.5 lab hours a term)

## ELTR 104L - AC Circuitry, Motors, Generators

(Pre- or corequisites: ELTR 101, 102 or department approval) Covers 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. Stresses safety. (7.5 lab hours a week $=112.5$ lab hours a term)

## ELTR 112 - Blueprint Reading I

(Pre- or corequisite: ELTR 101 or department approval) Provides instruction in reading and interpreting blueprints and specifications. Emphasizes is on terminology, symbols, notations, scaling, dimensioning and basic blueprint drawing techniques.

## ELTR 113 - Electrical Theory II

(Pre- or corequisite: ELTR 112 or department approval) 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.

## ELTR 114L - Residential Wiring Lab

(Pre- or corequisites: ELTR 112, 113 or department approval) Covers safety, tools, materials, single pole switches, receptacles, overcurrent protection, three- and four-way switches, pilot switches, door chimes, dryer and range receptacles and swamp coolers, NEC requirements for light commercial applications. (7.5 lab hours a week $=112.5$ lab hours a term)
(Prerequisite: advanced Electronics student)
The topics depend on the requests from the community.

Course Number/Course Name
Credit Hours

## ELTR 115L - Residential Electrical Services

(Pre- or corequisites: ELTR 112, 113 or department approval) Presents the study and building of residential services, installation of circuit panels, cutting and threading rigid conduit, hand bending and installation of EMT conduit in adherence to the National Electrical Code. (7.5 lab hours a week $=112.5$ lab hours a term)

## ELTR 170 - Electrical Wiring Circuitry

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.
ELTR 171L - Conduit Hand Bending Fundamentals
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 lab hours a week $=7.5$ theory +30 lab hours a term)
ELTR 173 - Industrial Motor Control Circuitry 2
Presents 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

Reviews with application 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 theory +5 lab hours a week)
ELTR 175 - Fiber Optical Cable Installation
Introduces the installation of fiber optical cable in various systems. Emphasizes proper installation and termination.

## ELTR 176 - Electrical Journeyman Preparation

Reviews the use and application of the National Electrical Code and the duties encountered by journeymen on typical job sites are reviewed in preparation for the New Mexico journeyman's electrical exam.

## ELTR 201 - Electrical Theory III

(Prerequisites: ELTR 111, 112, 113, 114L, 115L or department approval)
Introduces commercial/industrial aspects of electrical safety, tools, materials, power distribution systems, services, hazardous locations, intrusion/fire alarm systems in accordance with the National Electrical Code and blueprint reading.

## ELTR 203 - Electrical Motor Control Theory

(Prerequisite: ELTR 112 or department approval; pre- or corequisite: ELTR 201)
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

(Pre- or corequisite: ELTR 203 or department approval) Covers safety, electromechanical relay-type motor control, momentary push button switches, limit switches, proximity switches, pneumatic timers, forward/reverse starters, three-phase motors and National Electrical Code requirements. (7.5 lab hours a week $=112.5$ lab hours a term)

## ELTR 205L - Industrial Power Distribution

(Pre- or corequisites: ELTR 201, 204L or department approval) Covers safety, use of mechanical and hydraulic benders, use of power threaders, knock-out punches, hammer drills and powder actuated fasteners, cable installation, wire pulling and the application of the NEC. (7.5 lab hours a week $=112.5$ lab hours a term $)$

## Course Number/Course Name

Credit Hours
ELTR 211 - Industrial Electrical Circuitry and Safety 3
(Prerequisites: ELTR 201, 202, 203, 204L, 205L or department approval)
Emphasizes safety principles and standards used in the electrical field and techniques for electrical troubleshooting.

## ELTR 212 - Programmable Logic Controller Theory

(Pre- or corequisites: ELTR 211 or ELEC 103L, 105L or department approval)
Introduces 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

(Pre- or corequisites: ELTR 211, 212 or ELEC 103L, 105L or department approval)
Covers installation and programming of programmable logic controllers in accordance with manufacturer's specifications and NEC requirements. Covers simulating fundamental industrial control processes with various input and output devices. (7.5 lab hours a week $=112.5$ lab hours a term)

## ELTR 214L - PLC Systems Operation and Troubleshooting

(Pre- or corequisites: ELTR 211, 212 or department approval) Covers intricate industrial wiring, motor controls and motor troubleshooting, programmable controller timer, counter and sequence program operations and the troubleshooting techniques involved. ( 7.5 lab hours a week $=112.5$ lab hours a term)

## ELTR 296 - Special Topics

(Prerequisite: department approval)
Provides advanced, in-depth study and research into methods and current technological equipment used in the electrical trades.

## ELTR 297 - Special Problems

Variable
(Prerequisite: department approval)
Focuses on a specific problem while working with an instructor.

## EMS - Emergency Medical Technician Courses

EMS 160L - Basic Emergency Medical Technician Skills
(Prerequisites: BLS CPR certification, RDG 099 or equivalent, MATH 099 or equivalent)
Introduces emergency medical techniques provided by rescue squads including use of airway adjuncts, oxygen therapy, splinting, patient assessment and treatment for shock. (4 theory +5 lab hours a week) Course fee: $\$ 15$; Uniform fee: $\$ 28$

## ENG - English Courses

ENG 096-Special Topics
Presents various topics in developmental English.
ENG 098 - Basic Writing and Reading Skills
(Prerequisite: Students enrolling in ENG 098 should have placement test scores within the respective range of BOTH of the following tests: Accuplacer Reading 30-58 AND Accuplacer Sentence Skills 30-52.)
Focuses on basic reading and writing for practical use in school and life. Provides students the opportunity to practice reading strategies, improve their sentence and paragraph skills in organized pieces of writing, use computers for word processing and research, practice oral language skills, and improve English usage and punctuation. ( 3 theory hours +1 lab hour a week)

Course Number/Course Name
Credit Hours

## ENG 099 - Practical Writing

(Prerequisite: ENG 098)
Focuses on writing tasks related to daily life, school and the workplace to achieve a variety of practical and academic goals. Presents English grammar, usage and punctuation in the context of the students' own writing. (3 theory hours +1 lab hour a week)

## ENG 100 - Essay Writing

(Prerequisite: ENG 099)
Prepares students for first-year college composition by providing practice of the rhetorical and grammatical skills necessary to write purposeful, reader-centered essays. Covers effective use of a writing process in out-of-class essays and in timed, in-class situations. Incorporates readings for discussion of ideas and for information to be used in students' writing. (3 theory hours +1 lab hour a week)

## ENG 098W - ESL Lab

Focuses on teaching ESL students concurrently enrolled in an English and/or reading course to recognize and correct grammatical errors commonly made in writing assignments by native speakers of a language other than English. Provides practice in speaking, listening, and vocabulary development. (2 lab hours a week)

## ENG 099W - ESL Lab

Focuses on teaching ESL students concurrently enrolled in an English and/or reading course to recognize and correct grammatical errors commonly made in writing assignments by native speakers of a language other than English. Provides practice in speaking, listening, and vocabulary development. (2 lab hours a week)

## ENG 100W - ESL Lab

Focuses on teaching ESL students concurrently enrolled in an English and/or reading course to recognize and correct grammatical errors commonly made in writing assignments by native speakers of a language other than English. Provides practice in speaking, listening, and vocabulary development. (2 lab hours a week)

## ENG 101 - College Writing

(Prerequisite: ENG 100 or equivalent; RDG 100 or equivalent) Emphasizes text-based essay composition, including critical reading, summary writing, and synthesis.

## ENG 102 - Analytic and Argumentative Writing

(Prerequisite: ENG 101)
Emphasizes analytic and argumentative writing with readings and research in exposition and literature.

## ENG 119 - Technical Communications

(Prerequisite: ENG 101)
Introduces study of written and verbal communication in business and industry.

## ENG 150-Study of Literature

(Prerequisite: ENG 101 or permission of instructor) Introduces the academic study of literature. Fall only

## ENG 206 D,F,S,W - Popular Literature

(Prerequisite: ENG 101 or permission of instructor) Analyzes a popular literary form. S: Espionage Fiction; D:
Detective Novel; F: Science Fiction; W: Western.

## ENG 210 - Film as Literature

(Prerequisite: ENG 101 or permission of instructor
Presents study of film as visual literature, surveying major trends in the history of film.

## ENG 211 - Topics in Literature

Course Number/Course Name
Credit Hours

## ENG 212 - Topics in Language and Writing

(Prerequisite: ENG 101 or permission of instructor) Presents various topics. See Schedule of Classes.

## ENG 213 D,F,W - Film Genres

3
(Prerequisite: ENG 101 or permission of instructor)
Surveys film genres or national cinemas. D: Comedy; F: Film Noir; W: Western.

## ENG 219 - Technical Writing

(Prerequisite: ENG 102)
Emphasizes writing in industry, research laboratories, business, and other professional settings.

## ENG 220-Expository Writing

(Prerequisite: ENG 102)
Focuses on advanced composition, concentrating on critical reading of prose, writing expository and argumentative essays. Fall only.

## ENG 221 - Creative Writing: Fiction

3
(Prerequisite: ENG 101 or permission of instructor)
Introduces fiction writing as a creative process.
ENG 222 - Creative Writing: Poetry
3
(Prerequisite: ENG 101 or permission of instructor)
Introduces poetry writing as a creative process.
ENG 240 - Traditional Grammar
Surveys traditional grammar, introducing linguistic terminology and methods for identifying and understanding parts of speech, parts of sentences, and basic sentence patterns.
ENG 250 - Analysis of Literature
Emphasizes methods of literary analysis and critical writing applied to literary techniques, conventions, and themes. Spring only.
ENG 251 - Introduction to Dramatic Literature
(Prerequisite: ENG 101 or permission of instructor) Introduces structure and nature of drama as a literary form: Greek, Renaissance, Enlightenment, and Modern eras. Spring only.

## ENG 252 - Introduction to Shakespeare

(Prerequisite: ENG 101 or permission of instructor) Introduces study of Shakespeare's work: sonnets, tragedies, comedies, and histories. Fall only.

## ENG 262 - Survey of Earlier World Literature

(Prerequisite: ENG 101 or permission of instructor) Surveys poetry, fiction and drama from primarily non-English cultures: ca. 1500 B.C.-A.D. 1650. Fall only.
ENG 263 - Survey of Later World Literature
(Prerequisite: ENG 101 or permission of instructor)
Surveys poetry, fiction and drama from primarily non-English cultures: ca. 1650 to present. Spring only.

ENG 270 - Modern Literature
(Prerequisite: ENG 101 or permission of instructor) Surveys American and European literature of the 20th century.

## ENG 282 - Modern Latin American Literature

(Prerequisite: ENG 101 or permission of instructor)
Emphasizes chronicles, diaries, drama, poetry, essays and fiction of Latin America from late $19^{\text {th }}$ century to the present.

## ENG 294 - Survey of Earlier English Literature

(Prerequisite: ENG 101 or permission of instructor) Surveys British literature from Old English to 1798. Fall only.
(Prerequisite: ENG 101 or permission of instructor)
Surveys English literature from the late $18^{\text {th }}$ century to the present. Spring only.

## ENG 297 - Earlier American Literature

(Prerequisite: ENG 101 or permission of instructor)
Introduces short stories, poetry, drama and nonfiction from colonial U.S. to 1865.

ENG 298 - Later American Literature
(Prerequisite: ENG 101 or permission of instructor)
Continues study of American literature begun in ENG 296. Focuses on short stories, poetry, drama, the novel and nonfiction from 1865 to the present.

## ENTR - Entrepreneurship Courses

ENTR 101 - Entrepreneurship
Examines the many facets necessary for the successful planning and formulation of a new business. Areas of financing, legal formulation, location, personnel, market survey, credit and risks are covered. Students develop a complete business plan.

## ENTR 102 - Entrepreneurship in a Global Setting

(Recommended prerequisite: RDG 099 or equivalent) Presents the challenges and opportunities of international business in a format specifically oriented towards those individuals considering starting or expanding a small business.

## EPT - Environmental Protection Technology Courses

## EPT 111L - Environmental Technology I

(Prerequisites: MATH 100, ENG 100 or department approval) Introduces environmental protection methods and their ecological basis. Covers all major areas of environmental concern including air, water, soils and food sanitation. ( 2 theory +1 lab hour a week $=$ 30 theory +37.5 lab hours a term)

## EPT 113A - Hazards and Protection Training

Offers standard first aid and cardiopulmonary resuscitation with Red Cross certification. Also includes material sufficient to satisfy 8 hours of refresher training in accordance with 1910.120 requirements for hazardous materials site workers. ( 0.5 theory + 1.25 lab hours a week $=7.5$ theory +18.75 lab hours a term)

## EPT 113B - Hazards and Protection Training II

## (Prerequisite: EPT 113A)

Covers safe work practices at hazardous waste sites. Procedures specified by OSHA in the 29CFR 1910.120 regulation concerning safety and health plans, site characterization and analysis, waste removal and remedial operations. ( 1 theory +2.5 lab hours a week $=15$ theory +37.5 lab hours a term)

## EPT 132 - Environmental Chemistry

Introduces students to the fundamental of environmental chemistry, this course focuses on chemical and instrumental analysis, sampling and preservation techniques in water, wastewater, soil, air, and food testing. ( 1 theory hour +5 lab hours a week $=15$ theory +75 lab hours a term)

## EPT 171 - Introduction to Safety Management

Presents behavioral and management techniques for safety in today's demanding workplace. Topics include planning, budgeting, communications, motivation and people skills.

## EPT 172 - Introductory Soil Science

Reviews soil profiles, standard soil classification systems, elementary soil biology and chemistry, root zone interactions, nutrient cycling and agricultural considerations.

Course Number/Course Name
EPT 173 - Water Quality Protection
(Prerequisites: EPT 111L, CHEM 111/112L, math elective, computer elective or department approval)
Presents 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. (1 theory +5 lab hours a week $=15$ theory + 75 lab hours a term)

## EPT 174 - Basic Site Remediation Technology

Emphasizes major remedial technologies for site cleanup under federal, state and local regulations. Presents physical, biological, chemical and thermal treatments in common use.

## EPT 175 - Pest Management

3
Examines multiple pest types-insects, weeds, rodents and fungal pests-along with control techniques and impacts on the environment.
EPT 176 - Food Resources and the Environment 3 Presents the impact of food resource choices on the quality of the environment and human health. Explores economic, ecological and social aspects of food resource production and consumption.

## EPT 180 - Horticulture

Introduces basic principles of horticulture including the history, biology, ecology, and production of horticultural plant species.

## EPT 182 - Landscape Irrigation Design

3
Presents basic principles of landscape irrigation system design including basic terminology and concepts, basic hydraulics, plant characterization, soil categorization, xeriscape principles, and irrigation system sizing and layout.

## EPT 211 L - Environmental Technology II/Lab

(Prerequisites: EPT 111L, BIO 111, CHEM 111/112L, physics elective, math elective or department approval) Presents technical, operational and regulatory aspects of environmental technology. Identification and handling of biological, chemical and nuclear wastes are presented, as well as site sampling, characterization and assessment, waste removal and site remediation methods. (2 theory +5 lab hours a week $=30$ theory + 75 lab hours a term)
EPT 214A - Occupational Safety I
Introduces inspections, personal protective equipment, fire protection, hazardous materials, walking/working surfaces, electrical standards, and bloodborne pathogens. An OSHA General Industry Outreach Program 10-hour certificate is awarded on successful completion.

## EPT 214B - Occupational Safety II

Covers lock-out/tag-out, material handling, hazardous communication (MSDS \& labeling), machine guarding, welding/cutting/ brazing, confined spaces, hearing conservation, and general environmental controls.

## EPT 214C - Occupational Safety III

Introduces hazardous substances, respiratory standards, hazard analysis, record keeping, and workers compensation. An OSHA General Industry Safety and Health Outreach Program 30-hour certificate will be awarded on successful completion of EPT 214 A, B , and C .

## EPT 215 - Environmental Instrumentation and Analysis

(Prerequisites: EPT 111L, math elective or department approval; corequisite: EPT 211L)
Explores contemporary instrumentation and techniques in this hands-on introduction to the care and use of laboratory and fieldportable instruments. Covers maintenance, calibration and operation of instruments and meters, along with EPA protocols. ( 1 theory +5 lab hours a week $=15$ theory +75 lab hours a term $)$

Course Number/Course Name

## Credit Hours

EPT 296 - Special Topics
(Prerequisite: department approval)
Covers an in-depth study of problems and advanced techniques.
EPT 297 - Special Problems
Variable
(Prerequisite: department approval)
Focuses on a specific problem and studied while working with an instructor.

## EPT 299 - Cooperative Education

Employs the student at an approved program-related work site and applies learned theory based on goals and objectives.

## ETAP - Electrical Trades Apprenticeship

ETAP 198 - Electrical Trades Apprenticeship
(Prerequisite: current full-time employment in the electrical trades industry or department approval)
Requires 600 hours of related classroom instruction covering safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor controls.

## FITT - Fitness Courses

## FITT 170 - Physical Fitness I

Introduces assessment of muscular strength, muscular endurance, cardiorespiratory fitness, flexibility and body composition. Based on the assessments, the student designs and participates in a selfpaced exercise program. ( 3 lab hours a week $=45$ lab hours a term)

## FITT 171 - Physical Fitness II

(Prerequisite: FITT 170)
Focusing on fitness assessments, the student designs and participates in an advanced, self-paced exercise program. (3 lab hours a week $=45$ lab hours a term)

## FITT 173 - Circuit Training

Covers structured strength training and aerobics to provide a total body workout within a single format. ( 3 lab hours a week $=45 \mathrm{lab}$ hours a term)

## FITT 174 - Weight Training for Women

Introduces weight training designed for women and focuses on the use of free weights and machine exercises to develop muscle endurance, hypertrophy and muscular strength. (3 lab hours a week $=45$ lab hours a term)

## FITT 175 - Beginning Step Aerobics

Introduces cardiorespiratory fitness, flexibility and body composition for individuals who have never participated in a step aerobics program. (3 lab hours a week $=45$ lab hours a term)

## FITT 176 - Intermediate Step Aerobics

(Prerequisite: FITT 175 or department approval)
Continues cardiorespitory fitness, flexibility, and body composition for individuals in step aerobics. ( 3 lab hours a week $=45$ lab hours a term)

## FITT 209 - Introduction to Exercise Physiology

(Prerequisite: RDG 100 or equivalent; strongly recommended: BIO 100)
Covers how the human body responds and adapts to exercise and physical training is introduced. Covers scientifically based exercise programs with applications to individual and team sports. (2 theory + 2.5 lab hours a week $=30$ theory +37.5 lab hours per term) Fall only.

## Course Number/Course Name

Credit Hours

## FITT 211 - The Business of Personal Fitness Training 3

(Prerequisite: ENG 100 or equivalent)
Focuses on the business of personal training, including marketing services and programs, day-to-day operations, documentation, financial considerations, liability concerns, and trends and issues in the health/fitness industry. ( 2 theory +2.5 lab hours a week $=30$ theory +37.5 lab hours per term) Fall only.
FITT 225 - Fitness and Weight Control
(Prerequisites: FITT 209 and ENG 100 or equivalent)
Provides basic understanding of the interrelationship among exercise, weight control and nutrition. Applications are made to dietary analysis, energy balance, fat loss and weight gain programs. $(2$ theory +2.5 lab hours a week $=30$ theory +37.5 lab hours per term) Spring only.
FITT 277 - Kinesiology
(Prerequisite: RDG 100 or equivalent)
Covers the physiological and kinesiological aspects of muscular fitness training. Special emphasis is placed on designing strength, endurance, hypertrophy and power resistance/weight training programs. ( 2 theory +2.5 lab hours a week $=30$ theory +37.5 lab hours per term) (Fall only)

## FITT 289 - Fitness Assessment and Exercise Prescription

(Prerequisites: FITT 209, 277 and MATH 100A)
Covers methods of assessing health status, cardiorespiratory and muscular fitness, flexibility and body composition in apparently healthy individuals and prescribes appropriate exercise programs. $(2$ theory +2.5 lab hours a week $=30$ theory +37.5 lab hours per term) Spring only.

## FITT 290 - Exercise Prescription for Special Populations

(Pre- or corequisite: FITT 289)
Reviews the indications and contraindications for assessing and prescribing exercise programs for special populations (elderly, prepubescent children, pregnancy, low back pain, diabetes, spinal cord injury, etc.). (2 theory +2.5 lab hours a week $=30$ theory + 37.5 lab hours per term) Spring only.

## FITT 296 - Special Topics

(Prerequisite: department approval)
Covers fitness problems and the advanced techniques that fitness professionals use in responding to them.

## FITT 297 - Special Problems

Variable
(Prerequisite: department approval)
Focuses on a specific problem while working with an instructor.

## FITT 298 - Fitness Technician Field Experience

(Prerequisite: department approval)
Provides students with a supervised field experience in a fitness setting. ( 7.5 lab hours a week $=112.5$ hours per term)
FITT 299 - Cooperative Education
Employs the student at an approved program-related work site and applies learned theory based on goals and objectives.

## FREN - French Courses

FREN 101 - Beginning French I
Introduces development of French language skills-emphasizing listening, comprehension, and speaking.
FREN 102 - Beginning French II
(Prerequisite: FREN 101 or permission of instructor) Continues course of study begun in FREN 101.

Course Number/Course Name
Credit Hours
FREN 201 - Intermediate French
(Prerequisite: FREN 102 or permission of instructor)
Emphasizes enhancement of skills from FREN 102 and further knowledge of the language and culture of France.

FREN 202 - Intermediate French II
(Prerequisite: FREN 201 or permission of instructor)
Continues course of study begun in FREN 201.

## FREN 296 - Topics in French

(Prerequisite: varies)
Presents various topics. See Schedule of Classes.

## FS - Fire Science Courses

FS 102 - Fire Service Organization
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval)
Presents basic management principles used in modern fire protection organizations. Includes the fire protection system, fire department organization and management, planning and evaluating systems, data collection, resource management and budgeting.

## FS 103 - Introduction to Fire Science

(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval)
Presents an overview of the fire protection system focusing on the history of the fire service, fire protection careers and employment requirements, fire service organizations, firefighting equipment and facilities, and chemistry and behavior of fire.

## FS 111 - Fire Prevention

(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval)
Presents a basic overview of fire prevention programs and specific techniques used to reduce the occurrence of fire. Covers public fire safety education programs and basic concepts of installed fire protection and detection systems.
FS 112 - Building Construction
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval)
Introduces building construction with emphasis on structural elements, construction materials, construction techniques, fire loading, fire resistance, fire spread and growth in buildings and fire department operations in various building types.

## FS 201 - Fire Protection Systems

(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval)
Presents an in-depth study of fire protection system design and operation. Discusses a variety of fire suppression systems including water, carbon dioxide, halon, dry chemical and foam.

## FS 202 - Managing Community Fire Protection

(Prerequisite: FS 102 or department approval)
Covers legal aspects, program and personnel management, emergency management, EMS and rescue services, code administration, alternative delivery systems, training and trends in the fire service.

Course Number/Course Name
Credit Hours
FS 203 - Hazardous Materials
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval)
(Note: Students are required to wear respiratory protection equipment and participate in simulated hazardous materials incidents. Students must complete a pulmonary function test and medical review at the student's expense. Documentation of the medical evaluation must be submitted prior to simulations.) Covers recognition and identification of hazardous materials and defensive actions to prevent additional injuries and property and/or environmental damage. This course meets selected NFPA and OSHA requirements at the Hazardous Materials Operations level.

## FS 211 - Incident Command and Control

 or department approval)Covers specific incident management techniques for a variety of emergency incidents. Includes basic fireground and emergency incident operations, incident management systems and multi-agency/multi-jurisdiction response.
FS 212 - Fire Investigation
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval)
Focuses on investigative techniques to determine fire cause and origin for structural, vehicle, wildland and hazardous materials fires as well as explosions.
FS 213 - Industrial Fire Protection
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval)
Presents in-depth information regarding industrial loss control concepts focusing on industrial fire and safety hazards, hazardous materials, industrial fire brigades, fire department operations at industrial facilities, and NFPP, ISFSI and OSHA fire brigade standards.

## FS 214 - Facilities Inspection

3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval)
Emphasizes inspections conforming to NFPA 101: Life Safety Code and applicable NFPA fire codes. Covers general and occupancyspecific requirements.
FS 215 - Tactics I
3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval)
Provides in-depth information on strategy and tactics used by fire officers at emergency incidents. Includes structural firefighting, rescue, apparatus placement, water supply, ventilation, fire suppression systems, forcible entry and making fireground decisions.

## FS 216 - Tactics II

(Prerequisite: FS 215 or department approval)
Includes high-rise operations, urban search and rescue, wildland fires, aircraft emergencies, hazardous materials, mass casualty incidents and firefighter safety.
FS 296 - Special Topics
1-6
(Prerequisite: department approval)
Presents current topics in fire protection and emergency services.

## FS 297 - Special Problems Variable

(Prerequisite: department approval)
Focuses on a specific problem working with an instructor.
FS 299 - Cooperative Education
Employs the students at an approved program-related work site and applies learned theory based upon goals and objectives of the Fire Science program.

## FSMG - Food Service Management Courses

FSMG 101A - Food Sanitation Principles
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Covers principles of food safety and sanitation. Certification is available in sanitation and American Red Cross standard first aid / Adult CPR.
FSMG 101B - Applied Food Safety
(Prerequisite: FSMG 101A or equivalent or department approval)
Covers Hazard Analysis Critical Control Point (HACCP) based flowcharts, recipes and models including review of purchasing, receiving, storage and production controls.

## GEOG - Geography Courses

GEOG 101 - Physical Geography
(Prerequisite: RDG 100)
Introduces the geography of the natural environment: weather systems, climate regions, vegetation, soils, water resources, plate tectonics and volcanic, structural, erosional, fluvial, coastal, desert, and glacial landforms.

## GEOG 102 - Human Geography

(Prerequisite: RDG 100)
Introduces the cultural landscape: population, migration, languages, religions, folk customs, political units, economic development, agriculture, industry, urbanization, and systematic analysis of global environmental issues.

## GEOG 201 - World Regional Geography

 (Prerequisite: RDG 100)Surveys global geography with emphasis on regional characteristics, similarities and differences: landforms, climates, history, cultures, and current economic and political problems.

## GEOG 296 - Topics in Geography

(Prerequisite: RDG 100)
Presents various topics. See Schedule of Classes.
GIS - Geographic Information Systems Courses

## GIS 201 - Introduction to Geographic Information Systems

(Prerequisites: MATH 120, CP 176, ARDR 180)
Introduces the concepts of Geographic Information Systems including applications, components, mapping, topology, data and data capture. (2 theory +3 lab hours a week)

## GIS 202-Geographic Information Systems Software Applications I

## (Prerequisite: GIS 201)

Introduces the concepts of Geographic Information Systems with computer applications. Develops actual projects using the computer and related hardware. (2 theory +3 lab hours week)

## GIS 203-Geographic Information Systems Software Applications II

(Prerequisites: GIS 202, programming language or permission of program chair)
In this course students develop individual projects. (1 theory +5 lab hours a week)

Course Number/Course Name
Credit Hours

## GNHN - General Honors Courses

GNHN 121A - General Honors: The Ancient Legacy 3
(Prerequisites: See page 31 and permission of instructor) Introduces analysis of classic texts of the Greek, Hebrew, Roman, and Christian traditions: ideas about virtue, knowledge, politics, religious faith, and education. Fall only.

## GNHN 121M - General Honors: <br> The Modern Legacy

3
(Prerequisites: See page 31 for details; permission of instructor) Introduces analysis of classic texts of Western culture from the Renaissance through the early $20^{\text {th }}$ century: ideas about the individual, society, state, history, nature, progress, and religion. Spring only.
GNHN 221 - Topics in General Honors
(Prerequisites: See page 31 for details; permission of instructor) Presents various topics. See Schedule of Classes.

## GTAP - General Trades Apprenticeship

GTAP 198-General Trades Apprenticeship 40-50
(Prerequisite: current full-time employment in the general trades industry or department approval)
Consists of 600-750 hours of classroom instruction covering safety, shop math, code, blueprint reading and other related instruction.

## HCT - Healthcare Technician

## HCT 102/102L - HCT Health Unit Coordinator Skills and Laboratory

(Prerequisite: RDG 099 or equivalent, ENG 099 or equivalent, MATH 099 or equivalent, departmental approval; Corequisite: HCT 104, HCT 130C)
Includes the basic skills of transcription of doctor's orders, computerized patient information systems, pharmacological terms and data forms are presented. (2 theory +8 lab hours a week for 6 weeks) Course fee: $\$ 10$

## HCT 103/103L - HCT Special Skills Theory and Laboratory

(Prerequisite: RDG 099 or equivalent, ENG 099 or equivalent, MATH 099 or equivalent, departmental approval; Corequisite: HCT 104, HCT 120C)
Includes technical nursing skills such as sterile technique, urinary catheterizations, respiratory care, 12 lead EKG placement, basic venipuncture and blood collection techniques. (4 theory +10 lab hours per week for 6 weeks) Uniform fee: $\$ 55$

## HCT 104 - HCT Communication Skills

Includes simple anatomy and physiology, medical terminology, communication skills and documentation techniques. ( 6 theory hours a week for 6 weeks)

## HCT 120C - HCT Multi-skilled Clinical

(Corequisite: HCT 103/103L, HCT 104)
Presents special nursing skills in supervised clinical experiences in local hospitals. (108 clinical hours)

## HCT 130C - HCT Health Unit Coordinating Clinical 1

(Corequisites: HCT 102/102L, HCT 104)
Presents health unit coordinating information in supervised clinical experiences in local hospitals. (72 clinical hours)

Course Number/Course Name
Credit Hours

## HIST - History Courses

## HIST 101 - Western Civilization I

(Prerequisite: RDG 100. Recommended: ENG 101)
Emphasizes events, personalities, issues, rises and falls, covering ancient times through 1648.

## HIST 102 - Western Civilization II

(Prerequisite: RDG 100. Recommended: ENG 101) 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

(Prerequisite: RDG 100. Recommended: ENG 101)
Surveys economic, political, intellectual, and social development of the U.S. from 1492 to 1877.

## HIST 162 - History of the United States II

(Prerequisite: RDG 100. Recommended: ENG 101)
Continues course of study begun in HIST 161, covering 1865 to the present.

## HIST 230 - Twentieth-Century Russia

(Prerequisite: RDG 100. Recommended: ENG 101)
Surveys Russian History from czarist absolutism through communist totalitarianism to the tentative introduction of a pluralist society.
HIST 240 - Vietnam: War, Politics, and Culture
(Prerequisite: RDG 100. Recommended: ENG 101) Emphasizes causes of the war, military and political aspects, conduct and consequences of years of conflict in Vietnam; issues surrounding U.S. involvement in Vietnam and changes in the culture, institutions, and political thought of the U.S. during and after the war.

## HIST 260 - History of New Mexico

(Prerequisite: RDG 100. Recommended: ENG 101)
Surveys New Mexico's history from 1500 to the present; contributions of and interactions among Native Americans, Hispanics, Anglos, and others.

## HIST 270 - The American West

(Prerequisite: RDG 100. Recommended: ENG 101)
Focuses on American settlement west of the Mississippi River: exploration, fur trade, overland trails, ranching, mining, contacts with Native Americans, frontier violence, and environmental issues.

## HIST 282 - Modern Latin American History

(Prerequisite: RDG 100. Recommended: ENG 101)
Introduces Latin American history from the beginning of the revolutionary period in 1810 to the present.

## HIST 296 - Topics in History

(Prerequisite: RDG 100. Recommended: ENG 101)
Presents various topics. See Schedule of Classes.

## HIT - Health Information Technology Courses

## HIT 115 - Health Care Delivery Systems

Focuses on the organization, financing, and delivery of health care services. The scope of the health information management system and its many complex and interrelated components are presented. (This course is open to all TVI students.)

Course Number/Course Name
Credit Hours

## HIT 120 - Health Data Content and Structure

(Prerequisite: HIT 115 or department approval)
Examines the origin, use content, and format of health records; storage and retrieval systems, numbering and filing systems, record retention procedures, and basic functions of the health information department such as quantitative analysis, abstracting, incomplete chart control and release of information. Accreditation and licensure standards applicable to health records are presented.

## HIT 130 - Principles of Diseases

(Prerequisites: BIO 136/139L, CR 132 or department approval) Covers the causes, effects and treatments of disease conditions of all body systems and special disease and condition categories.

## HIT 140 - Computers in Healthcare

## (Prerequisites: BA 150, HIT 120 or department approval)

 Introduces the students to the use of information technology in the healthcare delivery system and different computer applications found in health information departments. Topics covered include chart deficiency and analysis, release of information, chart tracking, master patient index, record retrieval, and cancer registry. (3 theory + 2 lab hours a week) Course fee: $\$ 15$
## HIT 150-Legal/Ethical Aspects of Health Information

Focuses on the health care record as a legal document. Policies and procedures concerning release of medical information and patient confidentiality, principles and organization of the judicial system, and risk management are emphasized.

## HIT 160 - Pharmacology and Laboratory Procedures

(Prerequisites: BIO 136/139L, CR 132)
Provides students with an introduction to the principles of pharmacology and diagnostic testing procedures. Content includes drug classifications, prescription for common disorders and response to medications. Terminology associated with diagnostic tests, their use in diagnosing and implications of resultant values are examined.
HIT 200 - Classification of Diseases I (ICD - CM) 3
(Prerequisites: BIO 136/139L, CR 132; pre- or corequisite: HIT 130 or department approval)
Presents the principles, guidelines and conventions used in coding diagnoses and procedures using the International Classification of Diseases (ICD) and Clinical Modifications (CM). Students demonstrate proficiency through coding exercises and practical applications. (3 theory +2 lab hours a week) [Previously offered AA 275]
HIT 210 - CPT Coding
(Prerequisites: HIT 130, 200; pre- or corequisite: HIT 160 or department approval)
Examines the process of coding procedures using Current Procedural Terminology (CPT) and Common Procedural Coding systems (HCPCS). CPT coding guidelines, major and sub-category guidelines, modifier usage, and code linkage by specialty are presented. Students demonstrate proficiency through coding exercises and practical applications. (3 theory +2 lab hours a week) [Previously offered as AA 276]

## HIT 215 - Classification of Diseases II

(Prerequisites: HIT 200, HIT 210 or department approval) Covers prospective payment system, DRGs and reimbursement systems, ICD-CM official coding and reporting guidelines, and other issues related to classification systems for maintaining specialized health information data. The process of interpreting medical record information, choosing the required coding classification, and assigning and sequencing codes correctly will be addressed. Computerized classification systems will be used. (3 theory +2 lab hours a week) Course fee: $\$ 15$

## HIT 220 - Professional Practice Experience I

(Prerequisites: HIT 120, 150 and department approval). Requires a clinical experience in a health care facility medical record department. The experience will focus on the practice of skills related to the application of legal principles, the collection, storage and retention of health care data, record analysis and abstraction. Students will develop insight, understanding, and skill in medical record procedures. Not required of HIT students already employed in an acute care health information department. These students may substitute one elective course credit hour approved by the director. This is an unpaid work experience of a minimum of 4 hours a week for 12 weeks in the summer.

## HIT 230 - Reimbursement Methodologies

(Prerequisites: BA 150, HIT 200 or department approval) Covers health care reimbursement issues such as prospective payment methodologies, health care insurers and contracts, casemix and patient billing. Different types of private and governmental insurance such as Medicare, Medicaid, Blue Cross/Blue Shield, Champus, Workers' Compensation and Disability Compensation are presented related to claims submissions. A medical software package is used to perform competency-based simulations. (3 theory +2 lab hours a week) Course fee: $\$ 15$. [Previously offered as AA277]
HIT 240 - Data Analysis and Quality Assessment
(Prerequisite: BA 150 or department approval, Math 119 recommended)
Focuses on the practical applications of health information concepts as they apply to health record systems and the health care industry. The analysis of data collection and retrieval and computation of hospital statistical data are covered as well as vital statistics and reportable diseases and conditions. Quality assessment and improvement standards and requirements of licensing, accrediting, fiscal and other regulatory agencies are presented.
HIT 250 - Health Information Supervision
Covers management and personnel skills necessary at the supervisory level. Basic management functions are presented using examples and situations specific to health information technology. Communication, motivation, job analysis, recruitment, discipline, and federal/state laws regarding personnel management are discussed.

## HIT 260 - Professional Practice Experience II

(Prerequisites: Completion of all HIT courses)
Provides supervised clinical learning experience in a health care facility. Emphasis is on coding, qualitative analysis, quality assurance, utilization management, and supervisory activities. Students will be assigned specific clinical projects to be completed at the site and will participate in management and administrative activities as permitted by the site supervisor. This is an unpaid work experience requiring a minimum of 90 hours within a 15week time period.

## HIT 275 - Medical Coding Applications

(Prerequisite: HIT 200; pre- or corequisite: HIT 210 or department approval)
Focuses on assisting the students in the development of coding skills and the application of those skills to different types of medical records. Students will code inpatient, emergency department, outpatient surgery, and referred outpatient medical records. The process of interpreting medical record information, choosing the required coding classification, and assigning and sequencing codes correctly will be addressed. Course fee: \$5

## HIT 295 - Health Information Technology Seminar

(Prerequisite: Candidate for graduation; corequisite: HIT 260) Focuses on reflection of clinical experiences and AHIMA exam preparation. Job interview skills and resume writing are emphasized.


Course Number/Course Name
Credit Hours


[^7]

## (Prerequisite: RDG 099 or equivalent)

Presents management concepts of front office functions and how front office activities affect other departments. The computer is used throughout every phase of the guest cycle. ( 2 theory +3 lab hours a week) Course fee: $\$ 10$. Course equivalency AH\&MA EI 332.

## HT 108 - Hospitality Supervision

## (Prerequisite: RDG 099 or equivalent)

Focuses on managing people from a supervisor viewpoint, controlling labor costs, time management, increasing productivity and managing change. Course equivalency AH\&MA EI 251.

## HT 121 - Hotel/Motel Organization and Administration

## (Prerequisite: RDG 099 or equivalent)

Examines management functions and responsibilities in hotel/motel administration, organization, communications, accounting, marketing and human relations. Course equivalency AH\&MA EI 207.

## HT 124 - Managing Quality

 in the Hospitality Industry(Prerequisite: RDG 099 or equivalent)
Explores quality concepts and tools within the hospitality industry. High-performance team building, strategic career plans and managing organizational change are covered. Course equivalency AH\&MA EI 303.

## HT 126 - Hotel/Motel Facilities Management

Focuses on physical plant management of a hotel or restaurant that includes the engineering and maintenance department. Course equivalency AH\&MA EI 280.

Course Number/Course Name
Credit Hours

## HT 128 - Hotel/Motel Housekeeping Management

(Prerequisite: RDG 099 or equivalent)
Covers the systematic approach to managing housekeeping operations in the hospitality industry. Course equivalency AH\&MA EI 338.

## HT 130-Resort Management

(Prerequisite: RDG 099 or equivalent)
Introduces principles and practices for successful resort management, resort history, planning and development, major recreational activities, food and beverage, housekeeping and risk management. Course equivalency AH\&MA EI 424.
HT 131 - Club Management
Introduces club management. Topics include club boards of directors, service excellence, leadership, strategic management, club marketing, food and beverage operations, financial and computer systems. Course equivalency AH\&MA EI 313

## HT 132 - Hotel/Motel Human

 Resources Management(Prerequisite: RDG 099 or equivalent)
Presents a systematic approach to human resources management in the hospitality industry and analyzes contemporary issues, practices and trends within the hospitality industry. Course equivalency AH\&MA EI 356.

## HT 134 - Hospitality Energy and Water Management

## (Prerequisite: RDG 099 or equivalent)

Covers energy and water problems facing the hospitality industry and the development and implementation of an energy and water management program. Course equivalency AH\&MA EI 383.

## HT 136 - Hospitality Industry Training

## (Prerequisite: RDG 099 or equivalent

Examines the roles of supervision and training for the tourism and hospitality industry and the development of competent staff. Various types of training and learning techniques are emphasized. Course equivalency AH\&MA EI 355.
HT 138 - Hospitality Industry Engineering Systems 3 (Prerequisite: RDG 099 or equivalent)
Presents the managerial and technical functioning of the engineering/maintenance departments and the knowledge needed by managers at all levels to make appropriate and cost effective decisions. Course equivalency AH\&MA EI 488.

## HT 141 - Marketing of Hospitality Services

(Prerequisite: RDG 099 or equivalent)
Employs concepts to develop, implement and evaluate a marketing plan to identify and reach prospective customers using marketing tactics specific to hospitality services. Course equivalency AH\&MA EI 370.

## HT 144 - Hospitality Sales and Marketing

Emphasizes marketing within the tourism and hospitality industry. Topics include target markets, marketing plans, advertising and promotion and identification of emerging trends in consumer preferences and tastes. Course equivalency AH\&MA EI 472.
HT 146-Convention Management and Service
(Prerequisite: RDG 099 or equivalent)
Focuses on convention and group business market, marketing and sales strategies and techniques. Course equivalency AH\&MA EI 479.

Course Number/Course Name
Credit Hours

## HT 161 - Hotel/Motel Food and Beverage Management

(Prerequisite: RDG 099 or equivalent)
Covers the challenges and responsibilities involved in managing a food and beverage operation. Course equivalency AH\&MA EI 241.

## HT 164 - Food and Beverage Service

(Prerequisite: RDG 099 or equivalent)
Focuses on the management of food and beverage service outlets, cafeterias, coffee shops, room service, banquet areas, dining rooms and basic service principles with emphasis on the special needs of guests. Course equivalency AH\&MA EI 349.

## HT 166-Quality Sanitation Management

(Prerequisite: RDG 099 or equivalent)
Covers sanitation management and risk reduction techniques. Quality sanitation and cost-control techniques, compliance strategies and sanitation control points are emphasized. Course equivalency AH\&MA EI 244.

## HT 168 - Food and Beverage Controls

(Prerequisite: RDG 099 or equivalent)
Introduces the process of resource control to reduce costs in food and beverage operations. Maximizing revenue and profit levels, effective budgeting and staffing and satisfying the demand of guests are stressed. Course equivalency AH\&MA EI 465.
HT 170-Food Production Principles
(Prerequisite: RDG 099 or equivalent)
Focuses on quality food production and standard recipes. Topics include creative food production techniques, baking, sanitation and effective food presentation. Course equivalency AH\&MA EI 345.

## HT 172 - Hospitality Purchasing Management

(Prerequisite: RDG 099 or equivalent)
Focuses on the development and implementation of an effective purchasing program involving issues such as supplier relations, supplier selection, negotiation and evaluation. Course equivalency AH\&MA EI 446.

## HT 201 - Financial Accounting for the Hospitality Industry

(Prerequisite: ACCT 101A or department approval)
Presents a complete review of the fundamentals of financial accounting as it relates to tourism and hospitality. Techniques include projections for revenues, expenses, and net income, control of inventory and cash flow and analysis and interpretation of financial statements. Course equivalency AH\&MA EI 260.

## HT 204 - Managerial Accounting for the Hospitality Industry

## (Prerequisite: ACCT 101A or department approval)

Covers the skills necessary to be a decision-maker regarding
financial information in the tourism and hospitality industry. Topics include on-target budgets, control of cash flow, projecting profit goals and creating a uniform system of accounts. Course equivalency AH\&MA EI 463.

## HT 206 - Hospitality Industry Computer Systems

Explores the high-technology skills required in the tourism and hospitality industry. Reservations systems, room management and guest accounting, property management systems interfaces, food and beverage applications and management of information systems are emphasized. (3 theory +2 lab hours a week) Course fee: $\$ 10$. Course equivalency AH\&MA EI 468.
HT 221 - Hospitality Law
Focuses on the various legal considerations facing the tourism and hospitality industry. Topics include contractual obligations, torts, labor law, ADA and privacy issues. Course equivalency AH\&MA EI 390.

Course Number/Course Name
Credit Hours

## HT 224 - Hotel/Motel Law

Examines the legal problems associated with the hospitality industry and how important legal considerations can affect the industry. Course equivalency AH\&MA EI 391.

## HT 226 - Hotel/Motel Security Management

Covers security program, security staffing, responsibilities in guest and asset protection, the accounting function and internal control, computer security and emergency procedures. Course equivalency AH\&MA EI 387.

## HT 250-Gaming Operations

Examines and assesses today's casino gaming structure and gaming behavior. Topics also include slot volatility, casino layout and table games management.
HT 252 - Casino Management
Emphasizes the organizational structure of casinos and their personnel. The strategies and procedures that need to be used to protect the integrity of table games and the role of surveillance in the prevention and detection of scam artists and cheaters are examined.

## HT 254-Gaming Controls

Examines the regulatory systems and functions of gaming regulators. Topics include conducting licensing and background investigations, criminal activity and law enforcement and procedures for audits.

## HT 255 -Gaming Machine Repair

(Prerequisite: CIS 201)
Focuses on troubleshooting, setup and operation of licensed electronic gaming devices. Internal customer service skills are emphasized. ( 5 weeks; 2 theory +3 lab hours a week)

## HT $\mathbf{2 6 0}$ - Golf Course Operations

Examines the organizational structure of golf courses and management operations. Topics include the role of directors of golf, head professionals, corporate management groups and public versus privately owned operations.
HT 262 - Golf Course Maintenance
Examines the day-to-day facility operations of golf courses. Topics include fleet management, practice facilities, landscaping requirements and course layout.

## HT 295 - Managerial Decisions in the Hospitality Industry

Focuses on communication, resourcefulness, professionalism, industry knowledge and decision making. Students will be encouraged to make managerial judgments based on case study work. Assessment is primarily based on the steps taken to reach decisions.

## HT 296 - Topics Course

Covers current topics in hospitality and tourism.

## HT 297 - Special Problems

## Variable

(Prerequisite: department approval)
Requires student and instructor to define a specific problem in the area of the student's interest and directly related to the program. Student develops and executes a solution using analytical techniques to the problem. An oral presentation may be required.

## HT 298 - Internship

## (Prerequisite: department approval)

Requires a minimum of 150 work hours at a business or trainingrelated supervised workstation. If the student is currently employed in area of study, the 150 hours must involve a new learning experience. Students are not paid for their work but are supervised jointly by TVI and the company. (1 theory +9 lab hours a week)

## Course Number/Course Name

Credit Hours
HT 299-Cooperative Education
(Prerequisite: permission of director)
Requires a minimum of 150 work hours at a business or trainingrelated supervised workstation. If the student is currently employed in area of study, the 150 hours must involve a new learning experience. Student trainees are paid by the cooperating firm and supervised jointly by TVI and the employer. (1 theory +9 lab hours a week)

## HUC - Health Unit Clerk Courses

## HUC 101L - Health Unit Clerk Theory and Lab

(Prerequisites: enrollment in the program, RDG 099 or equivalent, ENG 099 or equivalent, MATH 099 or equivalent; corequisite: HUC 131C)
Includes medical terminology, simple anatomy, transcription of doctor's orders, computerized patient information systems, communication skills, ethical/legal behavior and the role of a health unit clerk. ( 5 theory +20 lab hours a week for 8 weeks)

## HUC 131C - Health Unit Clerk Clinical Practice

(Corequisite: HUC 101L)
Includes clinical experience in local hospitals and hospital outpatient clinics. Uniform fee: $\$ 37$ ( 32 hours a week for 4 weeks and 20 hours for 1 week)

## HUM - Humanities Courses

## HUM 111 - Early World Civilizations

(Prerequisite: RDG 100)
Introduces history, art, literature, religion, and ideas of early world civilizations: Egypt, Mesopotamia, India, China, Greece, Rome, Europe, Africa, and pre-Columbian America.

## HUM 121 - Modern World Civilizations

(Prerequisite: RDG 100)
Continues course of study begun in HUM 111: history, art, literature, music, and ideas of world civilizations from the Renaissance to present.
HUM 247 - Topics in Humanities
(Prerequisite: RDG 100)
Presents various topics. See Schedule of Classes.

## IB - International Business Courses

IB 101 - Introduction to International Business

## (Recommended prerequisite: RDG 099 or equivalent)

Develops students' understanding of international business and the globalization of the economy. Objectives, opportunities and challenges facing those who engage in business in foreign countries, foreign organizations, cultural dynamics, trade channels, the legal environment and political considerations are introduced.

## IB 201 - International Marketing

(Recommended prerequisite: RDG 099 or equivalent) Develops students' understanding of marketing in a globalized world economy. Presents a framework for analyzing marketing opportunities in different cultures and nations using the marketing mix.

## IB 202 - International Management

(Recommended prerequisite: RDG 099 or equivalent) Focuses on managing cross-cultural differences when conducting business with people of different cultures.

Course Number/Course Name
Credit Hours

## IB 203 - International Finance and Trade

(Prerequisites: ACCT 101, ACCT 102; RDG 099 or equivalent recommended)
Provides an overview of international finance and introduces the student to foreign exchange, risk management, investment analysis, and opportunities for trade financing with commercial banks and U.S. agencies.

## IB 205 - Fundamentals of Exporting/Importing

## (Recommended prerequisite: RDG 099 or equivalent)

Emphasizes the principles and considerations involved in importing and exporting products/services. Students prepare an international business plan outline to bring together the marketing, finance and management functions necessary to be successful in international business.

## IWAP - Iron Worker Apprenticeship

IWAP 198 - Iron Worker Apprenticeship 30-36
(Prerequisite: current full-time employment in the iron worker industry or department approval)
Provides 450 to 540 hours of related classroom instruction covering orientation, safety, shop and trade math, tools, equipment, supplies, blueprint reading, layout and code interpretation.

## JOUR - Journalism Courses

## JOUR 151 - Writing for the Media I

(Prerequisite: ENG 101 or permission of instructor) Introduces methods and skills of journalism, emphasizing journalistic conventions, news gathering, and newswriting for print and broadcast media.

## JOUR 251 - Writing for the Media II

(Prerequisite: JOUR 151 or permission of instructor) Emphasizes advanced skills and professional journalistic conventions, gathering and writing news for print and broadcast media, including a variety of types of stories and legal and ethical topics.

## JOUR 298 - Journalistic Practice

## (Prerequisite: JOUR 151 and permission of instructor)

Provides opportunities for internship in working with journalism professionals; conducting independent research and developing journalistic skills. Open to anyone but targeted for students working in the mass media. (Previously offered as JOUR 253.)

## JUD - Judicial Studies Courses

JUD 101 - Introduction to Judicial Studies
(Prerequisites: ENG 099 or equivalent, RDG 099 or equivalent or department approval)
Introduces concepts about the New Mexico judiciaries. Includes tracking of a civil and criminal case in each court. Familiarizes the student with the definition and use of legal terms. Offered as a distance learning course.

## JUD 102 - Introduction to Court Operations and Ethics

(Prerequisites: ENG 099 or equivalent, RDG 099 or equivalent or department approval)
Introduces concepts such as ethical and specific court operation issues. Presented jointly by Judicial Education Center and TVI faculty. Offered as a distance learning course.

## JUD 296 - Topics Course

(Prerequisite: department approval)
Explores current topics in judicial studies.

Course Number/Course Name
Credit Hours

## JUD 297-Special Problems

Variable
(Prerequisite: department approval)
Explores a specific problem defined by student and instructor in the area of the student's interest and directly related to the program. Student develops and executes a solution using analytical techniques to the problem. An oral presentation may be required.

## JUD 298 - Internship

(Prerequisites: JUD 101, JUD 102, COMM 221 or COMM 225, BA 150, ENG 101, elective and department approval)
Requires students to work a minimum of 150 hours at court sites. The student is jointly supervised by TVI and the employer.

## JUD 299 - Cooperative Education

(Prerequisites: JUD 101, JUD 102, COMM 221 or COMM 225, BA 150, ENG 101, elective and department approval)
Requires students to work a minimum of 150 hours at court sites. The student is paid by the court and is jointly supervised by TVI and the employer.

## LPNR - Licensed Practical Nurse Refresher Courses

LPNR 155L - Refresher Theory/Lab
(Pre- or corequisite: LPNR 165C)
Covers medical-surgical and specialty-nursing trends, procedures and pharmacology. ( 94 theory +14 lab hours the second week) Uniform fee: \$25
LPNR 165C - Refresher Clinical Experience
(Prerequisite: must have had a valid LPN license; corequisite: LPNR 155L)
Includes medical-surgical clinical experiences, administration of medications and patient care. This course is offered for credit/no credit. ( 17.6 clinical hours a week for 5 weeks)

## MATH - Mathematics Courses

MATH 096 - Special Topics
Presents various topics in developmental math.

## MATH 097 - Introductory Mathematics

(Prerequisite: appropriate placement by exam)
Provides individualized and small-group instruction in basic mathematics: whole numbers, fractions, decimals, percents and ratios and proportion. Open entry, open exit. ( 5 theory hours +3 lab hours a week)

## MATH 099 - Basic College Mathematics

(Prerequisite: MATH 097)
Integrates topics from basic mathematics, geometry and algebra.
Helps prepare students to enter programs in Business Occupations, Technologies, Trades \& Service Occupations, Health Occupations or MATH 100A. (3 theory hours +1 lab hour a week)

## MATH 100A - Algebraic Problem Solving I

(Prerequisite: MATH 099)
First of a two-course series in elementary algebra. Includes signed numbers, solving linear equations, formulas, graphing, solving systems of equations and applications. Satisfies prerequisite for MATH 100B, MATH 111 (MATH 100B is recommended) and MATH 119. (3 theory hours +1 lab hour a week)

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MATH 100B - Algebraic Problem Solving II
(Prerequisite: MATH 100A)
Second of a two-course series in elementary algebra. Includes exponents and polynomials, rational expressions, factoring, roots and radicals and quadratics. Satisfies prerequisite for MATH 120. ( 3 theory hours +1 lab hour a week)
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## MATH 100 - Algebraic Problem Solving

(Prerequisite: appropriate placement by exam)
Covers same material as MATH 100A and MATH 100B at a fast pace. One-term course designed for students with demonstrated ability in basic algebra. Satisfies prerequisite for MATH 111, 119 and 120. ( 3 theory hours +1 lab hour a week)

## MATH 111 - Mathematics for Elementary and Middle School Teachers I

(Prerequisite: MATH 100A)
Introduces the intuitive and logical background of arithmetic, sets, arithmetic algorithms, bases, integer properties, number theory, and problem solving.

## MATH 112 - Mathematics for Elementary and Middle School Teachers II

## (Prerequisite: MATH 111)

Continues course of study begun in MATH 111, emphasizing properties of rational and irrational numbers, real numbers as fractions and decimals, intuitive geometry, and measurement.

## MATH 119 - Methods of Problem Solving

(Prerequisite: MATH 100A)
Presents strategies for solving mathematical problems relying heavily on data patterns; sequences, set theory, combinatorics, probability, descriptive statistics, linear and quadratic modeling.

## MATH 120 - Intermediate Algebra

## (Prerequisite: MATH 100B)

Emphasizes linear equations and inequalities, polynomials, exponents, rational expressions and equations, radical expressions and equations, quadratic equations; introduction to graphing and functions.

## MATH 121 - College Algebra

(Prerequisite: MATH 120)
Focuses on functions and their graphs; investigation of linear, quadratic, polynomial, rational, exponential, and logarithmic functions.

## MATH 123 - Trigonometry

(Prerequisite: MATH 121 or 150 )
Uses graphing calculators to study trigonometric and inverse trigonometric functions; radian and degree measure, basic trigonometric identities, polar coordinates, solving triangles, and other applications.

## MATH 129-The Art of Mathematics

(Prerequisite: MATH 119 or 120)
Focuses on the creative nature of mathematics through problems, readings, discussions of topics such as set theory, logic, number theory, basic geometry, and probability.

## MATH 139 - Introduction to Finite Mathematics

(Prerequisite: MATH 119 or MATH 120)
Introduces concepts of finite mathematics, including elementary mathematical logic, set theory, probability theory, vector and matrix theory, statistics and linear programming.

## MATH 145 - Introduction to Probability and Statistics <br> \section*{(Prerequisite: MATH 119 or 120)}

Introduces basic concepts in probability and statistics - simple data analysis and descriptive statistics, probability and probability models, sampling and statistical inference - with applications from varied fields.

Course Number/Course Name

## MATH 150 - Advanced Algebra

(Prerequisite: MATH 121)
Explores functions (particularly exponential and logarithmic), conics, sequences and series, and systems of equations using graphing calculators.

## MATH 162 - Calculus I

(Prerequisites: MATH 123, and 150)
Introduces derivatives and definite integrals using graphing calculators: differentiation, antidifferentiation, limits, extrema, curve sketching, and applications.

## MATH 163 - Calculus II

(Prerequisite: MATH 162)
Continuation of MATH 162. Uses graphing calculators to cover integration techniques, numerical integration, improper integrals, some differential equations, series, and applications.

## MATH 180 - Elements of Calculus I

(Prerequisite: MATH 121 or 150)
Uses graphing calculators to study limits, derivatives, applications to graphing, extrema, antiderivatives, definite integrals in business and biological applications.

## MATH 181 - Elements of Calculus II

(Prerequisite: MATH 180)
Continues study begun in MATH 180. Presents intensive study of substitution, integration by parts, numerical integration;
introduces multivariate calculus and some differential equations.

## MATH 215 - Mathematics for Elementary and Middle School Teachers III

(Prerequisite: MATH 112)
Continues study begun in MATH 112. Presents topics from later elementary and middle school curricula: probability, descriptive statistics, algebra, coordinate geometry, logic and LOGO software.

## MATH 245 - Fundamentals of Probability and Statistics

## (Prerequisite: MATH 180)

Introduces basic ideas in probability and statistics: descriptive statistics, sample spaces, random variables, probability densities, expectation, variance, confidence intervals, hypothesis testing, correlation, simple regression analysis. Emphasizes business applications.

## MATH 264 - Calculus III

(Prerequisite: MATH 163)
Continues course of study begun in MATH 163 , including multivariate and vector calculus: level curves and surfaces, partial derivatives, gradients, tangent planes, directional derivatives, multiple integrals, cylindrical and spherical coordinates, applications.
(Prerequisite: varies)
Presents various topics. See Schedule of Classes.

## MATT - Machine Tool Technology Courses

MATT 101 - Metals Math I
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Presents whole numbers, fractions and decimals, shop geometry and algebra, formulas and equations, and the Pythagorean theorem. Emphasizes is on developing problem solving skills.

## MATT 102 - Metals Blueprint Reading I

(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Covers the interpretation of basic manufacturing and fabrication drawings, terminology, orthographic projection, sectional views, dimensions, tolerances, symbols and drawing standards.

Course Number/Course Name

## MATT 103L - Basic Lathe Principles

(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Introduces basic engine lathe principles and operations. Includes safety, setup, speeds and feeds, workholding devices and tooling, facing, turning, chamfering, shouldering and tailstock operations. ( 5 lab hours a week $=75$ lab hours a term )
MATT 104L - Basic Milling Machine Principles 2
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Introduces basic milling machine principles and operations. Covers safety, basic setup, speeds and feeds, tooling, workholding devices, squaring, step milling, drilling, reaming, and tapping. (5 lab hours a week $=75$ lab hours a term)

## MATT 105L - Basic Supporting Machine Tool Principles

(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Introduces drill press, bandsaw, pedestal grinder and handtool principles and operations. Covers safety, care and use of hand tools, layout, toolbit grinding and machine care and maintenance. ( 5 lab hours a week $=75$ lab hours a term)

## MATT 108L - Basic Measurement and Inspection 2

(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Provides practical exercises in basic metal shop measurement and inspection techniques, including use of rules, calipers, micrometers, comparison instruments and inspection reports. (5 lab hours a week $=75$ lab hours a term)

## MATT 111 - Metals Math II

(Prerequisite: MATT 101 or department approval)
Provides basic shop algebra, formulas, geometry and triangulation. Covers calculation of areas, volumes, material requirements, angles, applied trigonometry and advanced shop math applications.

## MATT 113 - Metals Blueprint Reading II

(Prerequisite: MATT 102 or department approval)
Continues a review of basic shop blueprint interpretation, provides interpretation of complex manufacturing and fabrication drawings including sectional views, tolerances and allowances, surface texture and assembly drawings.

## MATT 117L - Intermediate Lathe Principles

(Prerequisite: MATT 103L or department approval)
Reviews basic engine lathe principles and operations with training in safety, precision turning and facing, production turning, taper turning, carbide tooling applications, power cutoff, boring, single point threading and basic CNC turning set up and operation. (5 lab hours a week $=75$ lab hours a term)

## MATT 120L - Intermediate Milling Machine Principles

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\text { production applications. ( } 5 \text { lab hours a week }=75 \text { lab hours a term })
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## MATT 218L - Computer Numerical Control II

(Prerequisite: MATT 122L or department approval) Reviews programming, manuscript and tape preparation, and editing. Presents various programming languages, subroutines and interactive graphic programming. ( 5 lab hours a week $=75$ lab hours a term)

## MATT 296 - Special Topics

1-6
(Prerequisite: department approval)
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.
MATT 297-Special Problems Variable
(Prerequisite: Department approval)
Focuses on a specific problem while working with an instructor.

## MH - Manufactured Housing Courses

MH 104 - Manufactured Housing Plumbing
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Provides instruction and hands-on training in plumbing, safety, tools, fixtures and materials to complete the plumbing and gas installation for manufactured housing. ( 1 theory +2.5 lab hours a week $=15$ theory +37.5 lab hours a term)
MH 106 - Manufactured Housing Appliance Service 2 (Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Provides instruction and hands-on experience in repair, installation and maintenance of appliances normally found in manufactured housing. ( 1 theory +2.5 lab hours a week $=15$ theory +37.5 lab hours a term)

## MLT - Medical Lab Technician Courses

MLT 111 - Introduction to Medical Technology
(Corequisite: MLT 111L)
Introduces principles and procedures of physical, chemical and microscopic analysis of urine, basic immunology, instrumentation, quality control and safety procedures. (Note: program director approval is no longer required)

## MLT 111 L - Introduction to Medical Technology Laboratory

## (Corequisite: MLT 111)

Introduces basic medical laboratory techniques emphasizing urinalysis and immunology. Students will practice computer skills necessary for inputting data and navigating web assignments. (3 hours a week) Uniform fee: $\$ 45$

## MLT 114 - Immunology

(Prerequisite: program director approval; corequisites: 114C, 207/207L; Pre- or corequisite: MLT 111/111L)
Teaches the basics of the body's immune response and introduction to diseases involving deficiencies in the immune system. (2 hours a week for 7.5 weeks)
MLT 114C - Clinical Immunology
(Pre- or corequisite: MLT 111L; corequisites: MLT 114, 207/207L) Provides experience in serological testing on specimens from hospital patients using current methodologies. (6 hours a week for 7.5 weeks) Course fee: $\$ 20$

## MLT 151C - Clinical Experience Urinalysis/Phlebotomy

## (Prerequisite: program director approval)

Provides experience in urinalysis and phlebotomy at affiliated medical laboratories. This is a credit/no credit course. Uniform fee: \$10 (9 hours a week)

## MLT 205C - Clinical Experience

(Prerequisites: MLT 111/111L, 114/114C, 151C, 206/206C, 207/ 207L, 209/209L, 211/211L; pre- or corequisites: HUM/SS elective) Provides clinical practice in affiliated clinical laboratories with rotations through hematology/coagulation, microbiology, chemistry and Immunohematology departments. This course has a web-based component. This is a credit/no credit course. (40 hours a week for 12 weeks)

## MLT 206 - MLT Microbiology

(Prerequisites: MLT 111/111L, 207/207L, 211/211L; pre or corequisites: MLT 151C, 206C, 209/209L)
Presents clinical bacteriology, mycology and parasitology including macroscopic and microscopic identification of organisms, antibiotic susceptibility testing, life cycles, and the pathology and etiology of various diseases. Virology is introduced.

## Course Number/Course Name

## MLT 206C - Clinical MLT Microbiology

(Prerequisites: MLT 111/111L, 114/114C, 207/207L, 211/211L; pre- or corequisites: MLT 151C; corequisites: MLT 206, 209/ 209L)
Identifies the microorganisms of clinical significance from specimens obtained from patients. Students utilize current methodologies and identification techniques. (9 hours a week) Course fee: $\$ 20$

## MLT 207 - Clinical Chemistry

(Pre- or corequisite: MLT 111/111L; corequisites: 114/114C, 207L, 211/211L)
Presents the principles and methods used in testing for chemical components in blood and other body fluids including basic instrumentation.
MLT 207L - Clinical Chemistry Laboratory
(Pre- or Corequisite: MLT 111/111L; corequisites: MLT 114/ 114C, 207, 211/211L)
Presents experiences for performing the basic procedures used in a clinical chemistry laboratory including basic chemistry instrumentation. (6 hours a week) Course fee: $\$ 20$
MLT 209 - Clinical Hematology/Coagulation
(Prerequisites: MLT 111/11L, 114/114C, 207/207L, 211/211L; pre- or corequisites: MLT 151C; corequisites: MLT 206/206C, 209L)
Teaches normal and abnormal blood cell morphology, coagulation mechanisms and the principles of routine procedures in a hematology laboratory.

## MLT 209L - Clinical Hematology/Coagulation Laboratory

(Prerequisites: MLT 111/111L, 114/114C, 207/207L, 211/211L; pre- or corequisites: MLT 151C; corequisite: MLT 206/206C, 209)

Presents experiences for performing the basic procedures in a hematology/coagulation laboratory including the identification and enumeration of blood cells. (6 lab hours a week) Course fee: \$20
MLT 211 - Clinical Immunohematology
(Pre- or corequisites: MLT 111/111L, 114/114C, 207/207L, 211L) Examines the theory principles for determining blood group typing, antibody detection and identification, cross matching and component therapy. (4 hours theory per week for 7.5 weeks)
MLT 211L - Clinical Immunohematology Laboratory 1 (Pre- or corequisites: MLT 111/111L, 114/114C, 207/207L, 211) Provides experience in clinical blood bank. (6 lab hours per week for 7.5 weeks) Course fee: $\$ 20$
MLT 296/296A - Topics in Laboratory Medicine 1-4
(Prerequisites: may vary)
Various topics in laboratory medicine are presented. Uniform fee: \$45

## MT - Manufacturing Technology Courses

MT 105 - Manufacturing Concepts
(Corequisites: ENG 101, CP 176)
Develops teamwork skills and presents a variety of manufacturing concepts such as creative problem solving, project management, effective meetings, effective communication, and theory of constraints. (3 theory +3 lab hours week)

## MT 205 - Applied Science

(Prerequisites: ELEC 104)
Presents basic principles of chemistry and physics as they apply to high tech industries. Explores the application of topics such as work and energy, temperature and heat, chemical bonds and organic chemistry. ( 4 theory +6 lab hours week)

MT 280 - Introduction to Quality Assurance
Examines the philosophies of Deming, Juran and Taguchi as they apply to quality in the workplace. Study Total Quality Management (TQM), self-directed teams and teamwork. (3 theory hours a week)

## MT 281 - Statistical Controls

(Prerequisite: MATH 100B or higher)
Features the use of hardware and software as they apply to quality assurance. Study design of experiments, sampling techniques, SPC, control chart application and development and process reliability. ( 2 theory +3 lab hours a week)

## MUS - Music Courses

MUS 103 - Fundamentals of Music
(Recommended: Experience with voice or instrument) Introduces fundamentals of music: notation, scales, key signatures, and intervals, with application to aural comprehension through singing intervals, scales, triads, dictating simple rhythmic and melodic patterns.

## MUS 139 - Music Appreciation I

Surveys basic musical elements and their development from early Greece to the Classical period. Nontechnical; required attendance at live musical performances.

## MUS 140 - Music Appreciation II

Emphasizes study of symphonic music, chamber music, and vocal literature from the Romantic period to the $20^{\text {th }}$ century. Nontechnical; required attendance at live musical performances.

## MUS 296 - Topics in Music

## NA - Nursing Assistant Courses

NA 101 - Nursing Assistant Theory
(Prerequisites: RDG 099 or equivalent, ENG 099 or equivalent, MATH 099 or equivalent; corequisites: NA 110L, 131, 161, 171) Provides information covering basic nursing skills used in health care agencies and homes. Other topics covered are medical terminology, home care issues and community resources. ( 9 weeks)

## NA 110L - Nursing Assistant Lab

(Corequisites: NA 101, 131, 161, 171)
Provides the opportunity to practice basic nursing skills in the laboratory. ( 5 lab hours a week for 5 weeks) Uniform fee: $\$ 42$

## NA 121C - Nursing Assistant Clinical Experiences

Requires successful completion of NA 101, 110L, 131, 161 and 171 before going to clinical. These last six weeks of the program include supervised practice of nursing skills in hospitals, long-term care centers and patient homes throughout the city. ( 20 hours a week for 6 weeks)

## NA 131 - Health Communications

(Corequisites: NA 101, 110L, 161, 171)
Includes introductions to anatomy and physiology and nutrition. Covers basic structure and normal functions of the body systems and some of the aging problems which can occur in those systems. (9 weeks)

## NA 161 - Nursing Assistant Issues

Course Number/Course Name
Credit Hours

## NA 171 - Nursing Assistant-Applications

(Corequisite: NA 101, 110L, 131, 161)
Reviews basic math for part of the term with practice working selected problems. Tests cover eight areas of concentration. The other part of the term deals with geriatric issues and the application of nursing assistant theory to them. (9 weeks)

## NA 296 - Nursing Assistant Topics

1-3
Various topics. See Schedule of Classes.

## NAHA - Nursing Home/Home Health Attendant

## NAHA 102L - Nursing Home/Home Health Attendant Theory/Lab

(Corequisite: NAHA 102C)
Includes basic nursing skills necessary to work in a nursing home or private home. Personal care and restorative care skills are taught in a lab setting. (55 theory hours, 45 lab hours) Uniform fee: $\$ 24$

## NAHA 102C - Nursing Home/Home Health Attendant Clinical

(Corequisite: NAHA 102L)
Provides the opportunity to practice basic nursing skills in a supervised long-term care setting. ( 50 clinical hours)

## NURS - Nursing Courses

## NURS 115 - Dosage Calculations

## (Prerequisites: Nursing Basic Math Test and nursing director

 approval)Presents methods of dosage calculations for oral and parental medications, including intravenous therapy and pediatric dosages. Offered for CR/NC only.

## NURS 126C - Foundations of Nursing

(Prerequisites: nursing director approval, BIO 237/247L, ENG
101, PSY 105, NUTR 244; pre- or corequisites: NURS 115, BIO 238/248L, PSY 220)
Reviews the foundations of nursing including an introduction to the nursing process with a focus on assessment. Develops key concepts of basic and higher order needs within a caring framework. Clinical: assessment of healthy clients across the lifespan and measures to maintain/promote mental and physical health. (5 hours theory + 12 hours clinical) Uniform fee: \$205

## NURS 127C - Family Nursing I

(Prerequisites: BIO 238/248L, NURS 115, 126C, PSY 220; preor corequisites: BIO 239/239L, PHIL 245M )
Utilizes nursing process to study the child-bearing and child-rearing family. Clinical: experiences with maternity and pediatric clients in community and hospital settings. ( 5 hours theory +12 hours clinical) Uniform fee: \$66
NURS 190C - Introduction to Nursing Process 1
(Prerequisites: Permission of the nursing director, BIO 237/247L, ENG 101, NURS 126C or PN 126C, NUTR 244, and PSY 101) Introduces philosophy and conceptual framework of the nursing program. Studies the nursing process, including an in-depth focus on physical assessment. Required for all advanced placement students entering NURS 127C or PN 127C. (7.5 hours theory + 22.5 hours clinical per term)

Course Number/Course Name
Credit Hours
NURS 202C - Concepts for Transition Students
(ADN Students: prerequisites: ENG 101, PSY 105, BIO 238/248L, NUTR 244 and credit for NURS 126C. PN Students: pre- or corequisites: ENG 101, NUTR 244, BIO 238/248L and credit for PN 126C)
Introduces the conceptual framework of the nursing program and study of the nursing process. In-depth focus on assessment across the life span. Required for all applicants who seek advanced placement in the practical nurse or associate degree program. Spring, and summer. ( 1 hour theory +3 hours clinical)
NURS 226C - Family Nursing II
(Prerequisites: Calculation Exam II with score of $90 \%$ or better, NURS 127C, BIO 238/248L, BIO 239/239L; pre- or corequisites: NURS 231; corequisite: NURS 227)
Continues the study of the family, using nursing process, focusing on the impact of illness. Clinical: medical and surgical clients in community and hospital settings. ( 5 hours theory +15 hours clinical) Uniform fee: \$61
NURS 227C - Manager of Care
(Prerequisites: NURS 127C; Corequisite: NURS 226C) Introduces management principles to prepare the ADN nurse to manage care of groups of clients. Clinical application in NURS 226C.
NURS 231 - Pharmacology in Nursing
(Prerequisites: Permission of director of nursing, BIO 238/248L, NURS 126C; pre- or corequisite: BIO 239/239L) Introduces the 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 247C - Complex Health Problems in the Family

(Prerequisites: Calculation Exam III with score of $90 \%$ or better, NURS 226C, NURS 227C, NURS 231, elective)
Studies the impact of complex, multi-system health problems on individuals and families. Includes psychiatric disorders, cultural factors and practice issues. Clinical: providing and managing care of clients across the life span. ( 4 hours theory +15 hours clinical) Uniform fee: $\$ 61$

## NURS 280 - Critical Care Internship Theory

## (Prerequisite: Nursing director approval; corequisite:

 NURS 281C)Presents theory of critical care nursing within a nursing process framework. Monitoring of dysrhythmias, hemodynamics and ventilators. Effect of major critical conditions within a systems framework with consideration of multi-system failure.

## NURS 281C - Critical Care Internship Clinical

(Prerequisite: Nursing director approval; corequisite: NURS 280)
Applies critical care theory in campus lab through simulation and in the clinical area with a minimum of 96 hours preceptorship (average of 9 clinical hours a week) Uniform fee: $\$ 22$

## NURS 296 - Topics in Nursing

(Prerequisites: may vary)
Various topics in nursing are presented.

Course Number/Course Name
Credit Hours

## NUTR - Nutrition Courses

## NUTR 120 - Personal and Practical Nutrition

Presents nutrition concepts from a practical viewpoint that can be applied to personal goals. Includes current and controversial topics: individual nutrient needs, alternative eating patterns, nutrition as part of disease prevention, and applications of these principles in food preparation. Fulfills nutrition requirement for culinary arts but is not the required course for nursing or other health science majors.

## NUTR 244 - Human Nutrition

(Prerequisite: Any one of the following: CHEM 111/112L or 121/ 121L; BIO 121/121L or 123/124L)
Introduces nutrition as it affects normal body function and total health. Designed for health majors who will use this information in various professions.
NUTR 293 - Topics in Nutrition
Presents various topics. See Schedule of Classes.

## PC - Process Control Courses

PC 201 - Electromechanical Systems
(Prerequisites: ELEC 114L, 118L)
Use of electromechanical systems donated by local industries to expose students to equipment schematics, maintenance procedures and troubleshooting. Practice preventive and corrective maintenance. (2 theory +3 lab hours a week) Course fee: $\$ 25$

## PC 203 - PLC Theory and Applications

(Prerequisites: ELEC 203L, 205L or permission of director) Includes ladder logic diagrams, PLC hardware, software and applications of PLCs. A series of PLC lab exercises and a PLC project are required. ( 7.5 wks ; 2 theory hours +3 lab hours per week) Course fee: \$25

## PC 204 - Feedback Theory and Applications

(Prerequisites: ELEC 203L, 205L)
Includes various types of feedback systems, components and operation. Study the applications of such systems. ( $7.5 \mathrm{wks} ; 2$ theory hours +3 lab hours per week) Course fee: $\$ 25$

## PC 205 - Sensor Theory and Applications

(Prerequisites: ELEC 203L, 205L)
Includes force, photonic and temperature sensors. A project designed and constructed by students is required. ( $7.5 \mathrm{wks} ; 2$ theory +3 lab hours per week) Course fee: $\$ 25$

## PC 206-CIM Theory and Applications

2
(Prerequisites: ELEC 203L, 205L)
Includes theory of computer integrated manufacturing (CIM), CIM systems used in industry and the programming and operation of such systems. ( $7.5 \mathrm{wks} ; 2$ theory +3 lab hours per week) Course fee: $\$ 25$

## PC 207 - Mobile Robot Design and Construction

(Prerequisites: ELEC 203L, 205L)
Includes micro-controllers, DC motors, and motor drive circuitry and communications technology. A project designed and constructed by students is required. ( 7.5 wks ; 2 theory +3 lab hours per week) Course fee: \$25

## PC 208 - Industrial Robot Theory and Applications

(Prerequisites: ELEC 203L, 205L)
Includes theory, operation and maintenance procedures of industrial robots along with a project (utilizing an industrial robot system) designed and constructed by students. ( $7.5 \mathrm{wks} ; 2$ theory +3 lab hours per week) Course fee: $\$ 25$

## PC 210 - Introduction to Micro ElectroMechanical Systems (MEMS)

(Prerequisite: permission of instructor)
Covers the theory, construction methods, terminology and pplication of this emerging field. MEMS, micro-machines and nanotechnology covers devices and systems ranging from DMDs (digital mirror devices) used in Internet and communications switching systems, nano-inductors used in RF systems to biomedical "lab on a chip" systems which draw samples, via nanopumps, to identify sample components via infrared spectroscopy. ( $7.5 \mathrm{wks} ; 2$ theory +3 lab hours per week) Course fee: $\$ 25$
PC 211 - Power RF
(Prerequisite: ELEC 114L)
Presents RF energy and its applications in manufacturing industries. Includes plasma physics, RF applications, safety, RF generators, transmission lines and RF interference. ( 1 theory +3 lab hours a week) Course fee: $\$ 25$

## PC 212L - Vacuum Systems

(Prerequisite: ELEC 118L)
Introduces vacuum technology and vacuum systems. Includes gas laws and properties, operation and applications of vacuum pumps, gauges and valves and systems leak detection. (1 theory +3 lab hours a week) Course fee: $\$ 25$

## PHIL - Philosophy Courses

PHIL 110 - Introduction to Philosophical Thought 3
(Prerequisite: RDG 100. Recommended: ENG 101)
Surveys the philosophical issues addressed by great thinkers of the western tradition. Introduces questions about knowledge, reality, goodness, the idea of God, government and society, and the self.

## PHIL 156 - Logic and Critical Thinking

(Prerequisite: RDG 100)
Introduces the tools of reason helpful in everyday decision-making, skills for argument analyses, and effective communication of ideas. Surveys informal fallacies and formal deductive systems.

## PHIL 241 - Topics in Philosophy

(Prerequisite: RDG 100)
Presents various topics. See Schedule of Classes.

## PHIL 245 B, M,T - Ethics

(Prerequisite: RDG 100)
Provides forum for discussion of ethical problems that may arise in specific fields. B: Business; M: Biomedical; T: Technology.

## PHIL 250 - Philosophy of Education

(Prerequisite: RDG 100)
Presents critical examination of classical and contemporary educational theories, and philosophical movements in education. Emphasizes the relationship of philosophical theory and educational practice.

## PHIL 257 - Formal Logic

(Prerequisite: RDG 100)
Introduces formal deductive logic: propositional logic, truth tables, argument forms and fallacies, predicate (symbolic) logic, and method of proof.

## PHLB - Phlebotomy Courses

PHLB 110 - Phlebotomy Theory
(Prerequi
aront cricia or the program, RDG 099 or equivalent, ENG 099 or equivalent, MATH 099 or equivalent) Includes basic anatomy and physiology of the body systems with an emphasis selection, and procedures for collecting blood specimens from patients. (10 theory for 4 weeks)

Course Number/Course Name
Credit Hours
PHLB 110L - Phlebotomy Lab
(Corequisite PHLB 110 and PHLB 122C)
Provides opportunity to practice skills and apply theory using artificial arms and human subjects. (15 hours a week for 4 weeks)
PHLB 122C - Clinical Phlebotomy
(Prerequisite: CPR certification; corequisite: PHLB 110 and 110L) Provides opportunity for students to practice phlebotomy procedures on actual patients in area hospitals and clinics. Uniform fee: $\$ 53$. (30 hours a week for 4 weeks)

## PHOT - Photonics Courses

## PHOT 101L - Introduction to Photonics and Photonics Safety

(Prerequisite: Math 100B Algebraic problem Solving II and high school level trigonometry)
Introduces fiber optics and optical transducer theory including the basis of laser safety and operation. This course presents the elements of fiber optics including: theory and operation of fiber optics, handling of fiber optics, integrated optics, wave-guide transmission, optical circuitry, and fiber optic components. Safety procedures concerning lasers and related equipment are presented in this course. (3 theory +3 lab hours a week) [Previously offered as ELEC 111L]
PHOT 111L - Fiber Optics
(Prerequisite: PHOT 101 Introduction to Photonics and Photonics Safety; pre- or corequisite PHOTO 201L Optics) Presents optical wave-guides and fibers as well as Fiber Optics Telecommunication. The course covers basic fiber optics components and active divices such detectors for fiber optic systems, isolators, attenuators, circulators, couplers, cables, connectors, switches, pump lasers, transmission systems, repeaters, and $\mathrm{E} / \mathrm{O}$ conversion. (2 theory +3 lab hours per week).

## PHOT 201L - Optics

(Prerequisite: PHOT 101L Introduction to Photonics and Photonics Safety)
Presents basic geometrical (ray) and physical (wave) optics. The course covers the basics of the light reflection and refraction and the use of simple optical elements. It reviews light wave interference, diffraction, and polarization; the use of thin film coatings on mirrors; laser beam divergence in the near and far field; and the operation of such devices as gratings and quarter-wave plates. It also covers wave length, dispersion, and refractive index measurements and the concept of modulation transfer function. (4 theory + 6 lab hrs. a week) [Previously offered as LEOT 206L]
PHOT 211L - Advanced Fiber Optics 3 (Prerequisite: PHOT 111L Fiber Optics components; prerequisite or corequisite ELEC 114L Semiconductor Devices)
Introduces metrology of Fiber Optic systems. It also covers source of loss in fiber optics networks and components: insertion loss, return loss, and polarization dependent loss. Current fiber optics system are explored. (2 theory +3 lab hours per week).
PHOT 207L - Introduction to Laser Systems
(Prerequisite: PHOT 101 Introduction to Photonics and Photonics Safety, ELEC 103L Electronics Fundamentals) Introduces the theory and operation of solid-state and gas lasers and presents continuous wave and pulsed systems. The course covers the laser power and energy measurements, characteristics of flash lamps, discharge circuits, and pulse forming networks for optically pumped solid lasers, SW arc lamps. It also covers power supplies for CW lasers, colling systems for CW-pumped lasers, safe operation and measurements with argon, C02 and Nd: YAG. (4 theory +1 lab hours per week) [Previously offered as LEOT 205L]

## PHOT 217L - Advanced Laser Systems With Applications

(Prequisites: PHOT 207L Introduction to Laser Systems: pre- or corequisite ENG 101 College writing)
Covers the applications of laser Systems to industry. Include laboratory experiences such as calibration techniques, interferometry, Q-switching. The course requires the student to write a technical paper. (4 theory +6 lab hours per week) [Previously offered as LEOT 217L]

## PHOT 225L - Photonics Projects

(Prerequisite: PHOT 101 Introduction to Fiber Optics: PHOT 201L Optics)
This course is designed to introduce the student to creative photonics design by participation in small project groups. Each group will select a photonics problem to solve by using innovative optical circuitry and possibly the construction of a working model. (2 theory hour +6 lab hours per week)

## PHOT 296 - Topics

(Prerequisite: advanced Photonics Technology student) The topics depend on the requests from the community.

## PHOT 297-Special Problems

(Prerequisite: advanced Photonics Technology student) The student is given a problem to invesitgate and solve. The student designs the solution using a combination of techniques.

## PHOT 298 - Internship

(Prerequisite: permission of the director) 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.

## PHOT 299 - Cooperative Education

(Prequisite: permission of the director)
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.

## PHYS - Physics Courses

PHYS 102 - Introduction to Physics
(Prerequisite: RDG 100. Recommended: MATH 100B)
Surveys basic concepts and phenomena of physics.

## PHYS 151 - Physics I

(Prerequisites: RDG 100 and MATH 121, 150 or 180.
Corequisite: PHYS 151L. Recommended: Working knowledge of trigonometry)
Introduces mechanics, sound, and heat in non-calculus-based
format. Satisfies pre-medical, pre-dental, pre-optometry, and certain Technologies requirements.

## PHYS 151L - Physics I Laboratory

(Prerequisite: RDG 100. Corequisite: PHYS 151)
Emphasizes real-time experiments in mechanics, heat, and sound. Introduces computer data collection and analysis. (Previously offered as PHYS 153L.)

## PHYS 152 - Physics II

(Prerequisites: RDG 100 and PHYS 151. Corequisite: PHYS 152L) Focuses on electricity, magnetism and optics in non-calculus-based setting.

## PHYS 152L - Physics II Laboratory

(Prerequisite: RDG 100. Corequisite: PHYS 152)
Focuses on experiments in electricity, magnetism, and optics. Includes some computer simulations and data collection. (Previously offered as PHYS 154L.)

Course Number/Course Name
PHYS 160 - General Physics I
(Prerequisite: RDG 100. Pre- or Corequisite: Math 162.
Recommended: Coenrollment in PHYS 160L)
Introduces calculus-based study of mechanics and sound waves for science and engineering students.

## PHYS 160L - General Physics Laboratory I

(Recommended: Coenrollment in PHYS 160)
Focuses on real-time experiments in mechanics and waves. Includes computer data collection and analysis. Course fee: $\$ 20$.

## PHYS 161 - General Physics II

(Prerequisite: PHYS 160. Pre- or Corequisite: MATH 163) Emphasizes heat, electricity and magnetism for science and engineering students in calculus-based setting.

## PHYS 161L - General Physics Laboratory II

(Pre- or corequisite: PHYS 161)
Focuses on experiments in electricity, magnetism, optics. Course fee: \$20.
PHYS 262 - General Physics III
(Prerequisite: PHYS 161. Pre- or Corequisite: Math 264) Emphasizes optics and topics in modern physics for science and engineering students in calculus-based setting.

## PL - Paralegal Studies Courses

PL 101 - Introduction to Paralegal Studies
(Prerequisites: ENG 100 or equivalent, RDG 100 or equivalent or department approval. Recommended prerequisite: BA 150) Introduces concepts such as 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.

## PL 102 - Business Organizations

(Prerequisites: ENG 100 or equivalent, RDG 100 or equivalent or department approval. Recommended prerequisite: BA 150) Covers concepts such as the various types of business entities including sole proprietorships, partnerships and corporations, agency principles, franchising and regulatory requirements.

## PL 111 - American Law and Ethics

(Prerequisites: ENG 101, PL 101, PL 102, PL 123)
Covers concepts such as the origins, nature, history and structure of the American judicial system, principles of federalism under the Constitution and rules of professional conduct for lawyers.

## PL 123 - Torts

(Prerequisites: ENG 100 or equivalent, RDG 100 or equivalent or department approval. Recommended prerequisite: BA 150) Covers concepts in tort law, concentrating on negligence, products liability, non-physical injuries and their remedies and defenses and an overview of the trial process.

## PL 124 - Legal Research and Writing I

(Prerequisites: ENG 101, PL 101, PL 102, PL 123)
Covers concepts such as 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 computerassisted legal research. Significant time is spent at the UNM law library.
PL 201 - Contract Law
(Prerequisites: PL 203 or PL 206, PL 204, PL 233 or department approval)
Focuses on the law of contracts, rights and responsibilities, consideration, types of contracts, remedies and assignments and the study, analysis and application of cases.

Course Number/Course Name
Credit Hours
PL 203 - Civil Litigation
(Prerequisites: CIS 120 or CIS 123, ENG 102, PL 111, PL 124)
Covers concepts such as the process of civil litigation from initial client contact through post-trial procedures. Rules of civil procedure and rules of the various courts are covered. Students develop a forms and procedures notebook.

## PL 204 - Legal Research and Writing II

(Prerequisites: CIS 120 or CIS 123, ENG 102, PL 111, PL 124) Continues exploration on legal research, analysis and writing with the focus on advanced legal research problems.

## PL 206-Criminal Litigation

(Prerequisites: CIS 120 or CIS 123, ENG 102, PL 111, PL 124) Covers concepts such as the process of criminal litigation from initial appearance through post-conviction proceedings. Drafting documents associated with the prosecution or defense at various stages. Review rules of criminal procedure of several courts and develop a forms and procedures notebook.

## PL 221 - Wills, Probate and Estate Planning

(Prerequisites: PL 224, PL 230 or PL 243)
Covers concepts such as the drafting of wills and trusts, administration of estates, formal and informal probate proceedings and estate tax returns.

## PL 223 - Domestic Relations

(Prerequisites: PL 224, PL 230 or PL 243, or department approval)
Focuses on concepts such as the legal issues in family relations with emphasis on local procedures in the domestic relations court.

## PL 224 - Evidence

(Prerequisites: PL 203 or PL 206, PL 204, PL 233)
Covers concepts such as the issues of proof of facts in civil and criminal trials, with focus on the rules of evidence in state and federal courts, constitutional considerations, interviewing witnesses and organizing documents.

## PL 225 - Constitutional Law

(Prerequisites: PL 224, PL 230 or PL 243, or department approval)
Focuses on concepts such as civil rights and liberties under the Constitution, free speech, religious freedom, racial discrimination, group rights, privacy and political participation.

## PL 230 - Civil Litigation II

(Prerequisites: PL 203 or PL 206, PL 204, PL 233 or department approval)
Implements concepts learned in Civil Litigation through student participation in a hypothetical case and study, completing more sophisticated tasks in civil litigation, evidence rules, concepts and objections.

## PL 231A - Computer-Aided Legal Research

(Prerequisites: CIS 120 or CIS 123, PL 203 or PL 206, PL 204, PL 233 or department approval)
Covers concepts such as research using the Internet, legal and nonlegal databases including Westlaw and New Mexico Law on Disc.
( 2 theory + 3 lab hours a week) Course fee: $\$ 15$ (PL 231A, PL
231B, and PL 231C are the equivalent to LAS 231)

## PL 231B - Computer Applications in Law Practice 1

(Prerequisites: CIS 120 or CIS 123, PL 203 or PL 206, PL 204, PL 233 or department approval; waived for Office Administration majors)
Covers law-oriented concepts and applications using word processing, spreadsheets, and data management programs. (2 theory + 3 lab hours a week) Course fee: $\$ 15$ (PL 231A, 231B, and 231C are the equivalent to LAS 231)

Course Number/Course Name
Credit Hours

## PL 231C - Specialized Legal Software

(Prerequisites: CIS 120 or CIS 123, PL 203 or PL 206, PL 204,
PL 233 or department approval; waived for Office Administration majors)
Introduces students to various law-oriented software in the area of case management, time and billing, deposition digest, and calendaring and docket control. ( 2 theory +3 lab hours a week) Course fee: $\$ 15$ (PL 231A, 231B, and 231C are the equivalent to LAS 231)

## PL 232 - Personal Injury Law

(Prerequisites: PL 203 or PL 206, PL 204, PL 233 or department approval)
Focuses on the medical aspects and documentation of personal injuries in tort, workers' compensation and Social Security disability law.

## PL 233 - Law Office Management

(Prerequisites: CIS 120 or CIS 123, ENG 102, PL 111, PL 124) Prepares students to coordinate and oversee the administrative needs of a small to medium firm. Includes managerial techniques, law office systems, revenue tracking, personnel management, crisis resolution and ethical requirements.
PL 234 - Administrative Law
3
(Prerequisites: PL 203 or PL 206, PL 204, PL 233 or department approval)
Focuses on the policies, practices and procedures of governmental agencies and state and local administrations.

## PL 236 - Employment Law

(Prerequisites: PL 203 or PL 206, PL 204, PL 233 or department approval)
Focuses on 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, labor relations and remedies.

## PL 242 - Native American Law

(Prerequisites: PL 203 or PL 206, PL 204, PL 233 or department approval)
Focuses on Native American law to prepare students to work in private law firms that specialize in Native American law and in tribal courts and agencies.

## PL 243 - Criminal Litigation II

(Prerequisites: PL 203 or PL 206, PL 204, PL 233 or department approval)
Implements concepts learned in Criminal Litigation through student participation in a hypothetical case and study, completing more sophisticated tasks in criminal litigation, evidence rules, concepts and objections.

## PL 244 - Social Security Law

(Prerequisites: PL 203 or PL 206, PL 204, PL 233 or department approval)
Focuses on representing clients through the Social Security administrative process, disability evaluation, procedural issues and regulations, federal law and medical terminology. ( 5 weeks)

## PL 245 - Bankruptcy Law

(Prerequisites: PL 203 or PL 206, PL 204, PL 233 or department approval)
Focuses on bankruptcy practice, Bankruptcy Code and Rules of Bankruptcy Procedure. ( 5 weeks)

## PL 294 - Mediation

(Prerequisites: PL 224, PL 230 or PL 243, and department approval) Introduces fundamental skills involved in mediating disputes. Training may be provided by local mediation organizations at a student rate. The student is jointly evaluated by the mediation trainer and the instructor. The course is offered subject to availability of trainers.

Course Number/Course Name
PL 295 - Public Defender
(Prerequisites: PL 203 or PL 206, PL 204, PL 233, and department approval)
Requires students to work 135 hours and become familiar with all forms of case preparation with an emphasis on information gathering and investigation. Students are assigned to a supervising attorney from the Public Defender's Office. The course is offered subject to availability of supervising attorney.

## PL 296 - Topics Course

(Prerequisites: PL 203 or PL 206, PL 204, PL 233 and department approval)
Explores current topics in the law.

## PL 297-Special Problems

Variable
(Prerequisite: department approval)
Explores a specific problem defined by student and instructor in the area of the student's interest and directly related to the program. Student develops and executes a solution using analytical techniques to the problem. A legal research paper or project is completed. An oral presentation may be required.

## PL 298 - Internship

(Prerequisites: PL 224, PL 230 or PL 243, all Arts \& Sciences courses in the first four terms and department approval) Requires students to perform a minimum of 150 hours of legal assistant assignments in legal environments. The student is jointly supervised by TVI and the supervising attorney.

## PL 299-Cooperative Education

(Prerequisites: PL 224, PL 230 or PL 243, all Arts \& Sciences courses in the first four terms and department approval) Requires students to perform a minimum of 150 hours of legal assistant assignments in legal environments. The student is paid by the cooperating firm and is jointly supervised by TVI and the employer.

## PLAP - Plumbing Apprenticeship

PLAP 198 - Plumbing Apprenticeship 40-50
(Prerequisite: current full-time employment in the plumbing industry) Covers 600 hours of classroom instruction which includes safety, shop and trade math, plumbing processes, blueprint reading and mechanical code (plumbing) interpretation.

## PLMB - Plumbing Courses

PLMB 101 - Basic Plumbing Theory
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Covers procedures for installing plastic, steel, cast iron and copper pipe. Stresses installation, addition, repair, replacement or maintenance of plumbing and gas piping systems and personal safety.

## PLMB 101L - Basic Plumbing Lab

(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Covers identification of plumbing fittings and pipe nomenclature. Also covers the correct procedures for soldering copper pipe, threading and cutting iron pipe, flaring copper pipe and making diagonal offsets. (5 lab hours a week $=75$ lab hours a term)
PLMB 102 - Plumbing Systems Theory 1
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Covers the design of drainage and vent systems, sprinkler and water supply systems as well as methods to rough in and top out of an installation.

Course Number/Course Name
Credit Hours
PLMB 102L - Plumbing Systems Lab
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Introduces correct procedures for installation, repair and service of drainage and vent, sprinkler and water supply systems. Covers rough-ins and top outs. ( 5 lab hours a week $=75$ lab hours a term)

## PLMB 103 - Heating Control Circuitry Theory

(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Covers troubleshooting of heating control circuitry, control theory, terminology and symbols with emphasis on electrical control devices from various manufacturers.
PLMB 103L - Heating Control Circuitry Lab
1
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Focuses on installation and troubleshooting of heating control circuitry. Stresses the correct use of electrical test instruments as to safety. (3 lab hours a week $=45$ lab hours a term)
PLMB 105 - Plumbing Blueprint Reading I 1
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Covers sketching and reading blueprint working drawings for new construction, maintenance and remodeling.
PLMB 106L - Backflow Prevention
2
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Focuses on identification, testing and repair of backflow prevention assemblies. ( 5 lab hours a week $=75$ lab hours a term $)$
PLMB 111 - Systems Layout/Maintenance Theory
(Prerequisites: PLMB 103L, 106L or department approval) Covers design, layout and installation of water, soil and vent lines; inspecting and testing systems; maintenance and repair of plumbing, solar systems and yard irrigation; and swimming pool, hot tub and spa installation and service.

## PLMB 111L - Systems Layout Lab

(Pre- or corequisites: PLMB 106L, 111 or department approval) Emphasizes layout and installation of water, soil and vent lines, related fixtures and fittings, inspecting and testing systems and soldering. (5 lab hours a week $=75$ lab hours a term)

## PLMB 112L - Systems Maintenance Lab

(Pre- or corequisites: PLMB 111, 111L or department approval) Covers maintenance and repair of plumbing and yard irrigation as well as swimming pool, hot tub and spa instal-lation and service. (5 lab hours a week = 75 lab hours a term)
PLMB 115 - Plumbing Blueprint Reading II
(Prerequisite: PLMB 105 or department approval)
Covers drawings, isometric pipe layouts, interpreting blueprints, application of plumbing codes, and planning and coordinating the job.

## PLMB 116L - Building Maintenance, Heating and Cooling

(Pre- or corequisites: PLMB 101L, 103L or department approval) Presents requirements for installation, pre-fabrication and maintenance of heating, sheet metal, cooling and ventilating systems. ( 3 lab hours a week $=45$ lab hours a term)
PLMB 170 - Trades Math
Includes basic arithmetic, whole numbers, fractions and decimals. Covers volumes, weight measurements and basic algebra as it applies to electricity.

## PLMB 171 - Journeyman Preparation

Covers licensing requirements, rules and regulations and the Uniform Plumbing Code for persons interested in becoming journey level plumbers and natural gas fitters in New Mexico.

## PLMB 173L - Orbital Welding Systems

(Pre- or corequisite: PLMB 101 or department approval) Presents pipe ultra-pure stainless steel welding. Students operate, lay out and analyze welding applications for testing sequences. ((1 theory +5 lab hours a week $=15$ theory +75 lab hours a term)

## PLMB 174L - Polyvinlediene Fluoride (PVDF) Welding Systems

## (Prerequisite: PLMB 173L)

Presents Asahi Butt Fusion System, UF 2000 infra-red fusion and bead and crevice free system. ( 1 theory +5 lab hours a week $=15$ theory +75 lab hours a term)

## PLMB 296-Special Topics

1-6
Enables 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.

## PLMB 297 - Special Problems

Variable
(Prerequisite: department approval)
Focuses on a specific problem while working with an instructor.

## PN - Practical Nursing Courses

## PN 126C - Foundations of Practical Nursing

(Prerequisites: nursing director approval, BIO 237/247L, ENG
101; corequisites: NURS 115, BIO 238/248L, NUTR 244) Introduces the foundations of practical nursing including an introduction to nursing process. Develops key concepts of basic and higher order needs within a caring framework. Clinical focuses on assessment of healthy clients across the life-span and measures to maintain/promote mental and physical health. ( 5 hours theory +12 hours clinical) Uniform fee: $\$ 209$

## PN 129 - Trends and Issues in Practical Nursing

(Corequisite: PN 135C)
Presents the role of the practical nurse in relation to legal/ethical issues, professional relationships, the Nurse Practice Act and the changing health care delivery system.

## PN 130C - Family Nursing Across The Lifespan

(Prerequisites: BIO 238/248L, NURS 115, NURS 244,
PN 126C; pre- or corequisites: PSY 105, PN 131)
Uses the nursing process, study of the child-bearing and childrearing family and selected medical-surgical conditions. Clinical focuses on clients across the lifespan including pediatric, maternity, and medical surgical clients in hospital and community settings. (6 hours theory, 12 hours clinical) Uniform fee: $\$ 70$

## PN 131 - Pharmacology

(Prerequisite: BIO 238/248L; pre- or corequisites: PN 126C, PN 130C)
Presents 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 integrating nursing implications and responsibilities.

Course Number/Course Name
Credit Hours

## PN 135C - Nursing Care of Adult Clients with Complex Problems

(Prerequisites: Calculation Exam II with score of $90 \%$ or better, NUTR 244, PN 130C, PN 131, PSY 105; corequisite PN 129)
Continues study of the family, using nursing process, focusing on the impact of illness on adult clients and their families. Clinical focuses on medical and surgical clients with multi-system health problems in acute and long-term healthcare settings. (6 hours theory, 15 hours clinical) Uniform fee: $\$ 60$

## PRNS - Perioperative Nursing Courses

## PRNS 260L - Perioperative Nurse Specialist Theory/Lab

(Prerequisite: Program Chair approval; corequisite: PRNS 265C) Presents philosophy of and skills required of RNs and LPNs in the surgical environment, including intraoperative care and postoperative care. Skills are practiced in a campus operating room laboratory. Uniform fee: \$35

## PRNS 265C - Perioperative Nurse Specialist Clinical Experience

## (Corequisite: PRNS 255L)

Applies new and previously learned concepts to perioperative nursing in hospital operating rooms. ( 24 clinical hours a week for 12 weeks)

## PSCI - Political Science Courses

## PSCI 110 - The Political World

Introduces politics, emphasizing how people can understand their own political systems and those of others.

## PSCI 200 - U.S. Politics

Surveys American politics: theory of democracy and political institutions, governmental branches and their bureaucracies.

## PSCI 210 - State and Local Politics

Analyzes state and local politics, using New Mexico and other states as examples. Fall, spring only.
PSCI 220 - Comparative Government and Politics
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
Examines various significant factors in international politics; nationalism, ideology, deterrence, balance of power, international law, and international conflict and collaboration.
PSCI 260 - Political Ideas
Surveys classical and contemporary political ideas and ideologies; introduces many of the enduring political issues which are presented in descriptive, analytical, and normative terms. Fall only.

## PSCI 296 - Topics in Political Science

Presents various topics. See Schedule of Classes.

## PSY - Psychology Courses

PSY 105 - Introduction to Psychology

## (Prerequisite: RDG 100)

Introduces psychology as the scientific study of behavior and mental processes: methodology, psychobiology, learning, memory, personality, psychological disorders, therapy, personality, and social psychology.

Course Number/Course Name

## PSY 200 - Statistical Principles

(Prerequisite: PSY 105. Recommended: MATH 119 or 120) Introduces basic statistics principles for the description and interpretation of psychological data: frequency distributions, graphing, measures of central tendency, variability, regression, correlation, hypothesis testing, and analysis of variance. Fall, spring only.

## PSY 220 - Developmental Psychology

## (Prerequisite: PSY 105)

Emphasizes physical, social, emotional and intellectual development across the life span, including professional research and applications.

## PSY 230 - Psychology of Adjustment

## (Prerequisite: $R D G 100$ )

Focuses on normal human adjustment and coping in personal and interpersonal arenas: stress and mood management, self-esteem, social adjustment, communication, and relationships.

## PSY 231 - Human Sexuality

(Prerequisite: RDG 100. Recommended: PSY 105)
Surveys and analyzes physiological, cultural, social, and individual factors that influence sexual behavior, sex roles, and sex identity.

## PSY 232 - Clinical Psychology

(Prerequisite: PSY 105)
Examines clinical psychology as a profession and research area: psychometrics and assessment, systems of prevention and therapy, forensic psychology, program evaluation, professional, and ethical issues.

## PSY 233 - Psychology and Film

(Prerequisite: RDG 100. Recommended: PSY 105)
Analyzes psychiatric disorders as portrayed in films, offering an opportunity to see realistic manifestations of "madness," and cinema's ability to reflect and to affect perceptions of mental illness and treatment.

## PSY 240 - Brain and Behavior

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

## PSY 260 - Psychology of Learning and Memory

(Prerequisite: PSY 105)
Introduces study of learning in the laboratory, ranging from simple processes such as conditioning to complex ones such as transfer, memory, and concept formulation. Fall only.

## PSY 265 - Cognitive Psychology

## (Prerequisite: PSY 105)

Presents theories and research on various mental processes: memory (encoding, storage and retrieval), attention, comprehension, categorization, reasoning, problem solving, language, and motor skills. Spring only.

## PSY 271 - Social Psychology

(Prerequisite: PSY 105 or SOC 101)
Emphasizes study of social interaction: communication, perception of the self and others, attitudes, and leadership. Spring only.

## PSY 296 - Topics in Psychology

(Prerequisite: RDG 100)
Presents various topics. See Schedule of Classes.

## PSY 299 - Death and Dying

## (Prerequisite: RDG 100)

Examines psychological, emotional, and sociological aspects of death in American culture.

Course Number/Course Name
Credit Hours

## PT 115 - Pharmacy Technician Anatomy and Physiology

(Prerequisites: CHEM 100 or CHEM 111/112L or high school chemistry; corequisites: PT 110, 111L, 116; pre- or corequisites: CSCI 101 or BA 150 or CP 176)
Presents the structures and function of the human body. Prevents common disease entities related to body systems are presented.
PT 116 - Pharmacy Calculations
(Prerequisites: CHEM 100 or CHEM 111/112L or high school chemistry; corequisites: PT 110, 111L, 115; pre- or corequisites: CSCI 101 or BA 150 or CP 176)
Provides skills in pharmaceutical calculations for oral, parenteral and IV preparations.
PT 120 - Advanced Pharmacy Technology
(Prerequisites: PT 110, 111L, 115, 116, CHEM 100 or CHEM 111/ 112L or high school chemistry, CSCI 101 or BA 150 or CP 176; corequisites: PT 121L, 122C, 125; pre- or corequisite: COMM 221)
Covers compounding and packaging of drugs, preparation of intravenous admixtures, inventory maintenance, clerical skills and institutional drug distribution processes. Uniform fee: \$35

## PT 121L - Pharmacy Technician Lab II

(Corequisites: PT 120, 122C, 125; pre- or corequisite: COMM 221)
Provides opportunities for skill development in compounding/ reconstitution, labeling, aseptic technique, use of laminar flow hoods and use of the computer. (9 hours a week)
PT 122C - Pharmacy Technician Practicum
(Prerequisite: director approval; Corequisites: PT 120, 121L, 125; pre- or corequisite: COMM 221)
Provides the opportunity in institutional and community pharmacies for practical experience in applying what they have learned in classrooms and labs. ( 15 hours a week)
PT 125 - Pharmacology for Pharmacy Technicians
(Corequisites: PT 120, 121L, 122C; pre- or corequisite: COMM 221)
This is a study of therapeutic drug categories.

## QUFD - Quantity Foods Courses

QUFD 101 - Quantity Food Theory I
(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent or department approval)
Presents food service tools, equipment, cooking methods and techniques, weights and measures, food costs and other math. Emphasizes breakfast through lunch operations.

Course Number/Course Name
QUFD 103L - Buffet Procedure
(Pre- or corequisites: BKNG 102, FSMG 101A, QUFD 101 or department approval)
Covers buffet procedures, catering, introductory serving techniques, customer service and cashiering. ( 5 lab hours a week $=75$ lab hours a term)

## QUFD 105L - Breakfast/Lunch Production

(Pre- or corequisites: QUFD 103L or department approval) Covers breakfast/lunch preparation techniques and methods of cooking . (5 lab hours a week $=75$ lab hours a term)
QUFD 107L - Cold Food Preparation I
(Pre- or corequisites: QUFD 105L or department approval) Covers garnishing, Garde Manger, appetizers, hors d'oeuvres, salads, dressings, sandwiches, fruits and vegetable preparation. (5 lab hours a week $=75$ lab hours a term)
QUFD 108L - Quantity Food Production
(Pre- or corequisites: QUFD 107L or department approval) Covers food service entrees, starches, vegetables, stocks, soups, and basic sauce production. Applies methods of cooking. (5 lab hours a week $=75$ lab hours a term)
QUFD 111 - Quantity Food Theory II
(Prerequisites: QUFD 101, 103L, 105L, 107L, 108L, BKNG 102,
FSMG 101B or department approval)
Covers cooking methods, fabrication, presentation, stocks, sauces, soups, beef, poultry, seafood, game, lamb, pork, potatoes, grains, pasta and vegetables/fruits. Stresses professionalism.

## QUFD 112L - Dining Room Skills

(Pre- or corequisite: QUFD 111 or department approval) Covers table setting, napkin folding, table service, money management, managing a staff in the dining room, banquet service, restaurant service and operation, and customer service. ( 5 lab hours a week $=75$ lab hours a term)

## QUFD 113L - Cold Preparation II

(Pre- or corequisite: QUFD 111 or department approval) Stresses safe, sanitary and creative pantry techniques. Produce appetizers, salads, dressings, fruits/vegetables and starches for the Student Specialties Restaurant. ( 5 lab hours a week $=75$ lab hours a term)
QUFD 114L - Stock and Sauces
(Pre- or corequisite: QUFD 111 or department approval) Introduces white and brown stocks from scratch and prepare primary and secondary sauces and soups from these stocks. Practice is provided for using various thickening agents. (5 lab hours a week = 75 lab hours a term)

## QUFD 115L - Entree (Meat and Seafood) Preparation 2

(Pre- or corequisite: QUFD 111 or department approval) Covers production of fabricated cuts of meats and a variety of cooking methods for wholesome, flavorful entrees for the Student Specialties Restaurant. Stresses plate presentation and timely production. ( 5 lab hours a week $=75$ lab hours a term)

## QUFD 296 - Special Topics

(Prerequisite: department approval)
Covers an in-depth study of problems and advanced techniques.

## QUFD 297 - Special Problems

(Prerequisite: department approval)
Focuses on a specific problem while working with an instructor.

## RDG - Reading Courses

RDG 096 - Special Topics
Presents various topics for reading instruction.

Course Number/Course Name
Credit Hours
RDG 099 - Reading Improvement
(Prerequisite: ENG 098) Introduces reading skills required for success in comprehending ideas and applying critical thinking skills to materials in the workplace and the academic setting. ( 3 theory hours +1 hour lab a week)

## RDG 100 - Reading and Critical Thinking

(Prerequisite: RDG 099) Focuses on reading required for success in college. Includes comprehension, problem solving, note-taking, summarizing and computer-assisted research skills. (3 theory hours + 1 lab hour a week)

## RL - Recreation and Leisure Courses

## RL 101 - Introduction to Recreation and Leisure

(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent, or department approval)
An introduction to the history, philosophy, and principles of recreation and leisure, the agencies providing programs and an investigation of professional employment opportunities.

## RL 102 - Recreation Leadership

(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent, or department approval)
Appropriate theories and techniques for leading activities for various populations are discussed.

## RL 103 - Recreation Program Planning

## 3

(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent, or department approval)
This course covers program planning methods and skills. Emphasis is placed on planning, budgeting, organizing, implementing and evaluating event and overnight recreation programs as well as fundraising and volunteer development.
RL 105 - Behavior Management
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent, or department approval)
This course will cover individual and community assessment, the development of contracts and the implementation of behavior management programs with reference to outside sources.

## RL 111 - Principles of Outdoor Recreation

(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent, or department approval)
Prepares students for a leadership role for an outdoor recreation program by enhancing their knowledge of and appreciation for the natural environment so that safe, responsible and enjoyable adventures are possible.

## RL 112 - Natural Resources Recreation Management 3

(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent, or department approval)
This course will focus on the understanding of the ecosystem as a dynamic and interrelated system with emphasis on wilderness management, natural resource economics, and environmental law and policy.

## RL 121 - Principles of Sports Management

(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent, or department approval)
Organization and administration of private, public and commercial sport and recreation programs including organizing tournament play, safety and risk management issues.
RL 131 - Recreation Programming for Older Adults 3 (Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent, or department approval)
This course will focus on the theory and application of safe and effective development, planning, implementation and evaluation of recreation and leisure activities for physically elite, physically fit and physically independent older adults.

## RL 141 - Introduction to Therapeutic Recreation 3

(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent, or department approval)
This survey course will introduce the process of enabling individuals with physical, developmental or psychiatric disabilities to acquire social skills through recreation activities. The history, various models, professional issues, relative agencies and institutions and leadership skills of therapeutic recreation will also be covered.

## RL 296-Special Topics

(Prerequisite: department approval)
Covers special topics and the advanced techniques that recreation and leisure professionals use to respond to them.
RL 297 - Special Problems
(Prerequisite: department approval)
Provides opportunity for independent study.

## RL 298A - Natural Resources Recreation Management Internship

Provides students with a supervised internship in an outdoor recreation setting.

## RL 298B - Community Recreation Internship

3
Provides students with a supervised internship in a community recreation setting.

## RL 298C - Therapeutic Recreation Internship

Provides students with a supervised internship in a therapeutic recreation setting.

## RLGN - Religion Courses

RLGN 107 - Living World Religions
(Prerequisite: RDG 100)
Introduces the academic study of religion, focusing on major world religions: religions of antiquity, Hinduism, Buddhism, Taoism, Judaism, Christianity, Islam, and religion in primal cultures.
RLGN 247 - Topics in Religious Studies
(Prerequisite: RDG 100)
Presents various topics. See Schedule of Classes.

## RNR - Registered Nurse Refresher Courses

RNR 255L - Refresher Theory/Lab
(Pre- or corequisite: RNR 265C)
Covers medical-surgical and specialty nursing, pharmacology and procedures. ( 94 theory +14 lab hours the second week) Uniform fee: $\$ 25$
RNR 265C - Refresher Clinical Experience
(Prerequisite: must have had a valid RN license; corequisite: RNR 255L)
Provides medical-surgical clinical experiences include total patient care. This course is offered for credit/no credit. (17.6 clinical hours a week for 5 weeks)

## RT - Respiratory Therapy Courses

## RT 110 - Respiratory Therapy <br> Principles and Practices I

(Prerequisites: Program director approval and BIO 123/124L, ENG 101, MATH 119, PSY 105 or SOC 101; corequisites: RT 115L, 121C, 131, CHEM 111/112L)
Introduces respiratory therapy as a health sciences profession. Includes cardiopulmonary assessment, medical gas administration, oxygen therapy, microbiology, infection control, equipment maintenance, incentive breathing exercises and chest physiotherapy. Uniform fee: \$100

Course Number/Course Name
Credit Hours

## RT 111 - Respiratory Therapy Principles and Practices II

(Prerequisites: CHEM 111/112L, RT 110, 115L, 121C, 131; corequisites: RT 116L, 122C, 133, BIO 237/247L)
Emphasizes positive pressure breathing treatments, airway management, pulmonary function testing, arterial puncture and blood gas analysis. Includes administering medicated aerosol therapy.
RT 115L - Respiratory Therapy Lab I 1
(Corequisites: RT 110, RT 121C, RT 131)
Provides basic respiratory care procedures learned in RT 110, using state-of-the-art equipment in the learning laboratory under simulated patient situations.
(3 hours a week)
RT 116L - Respiratory Therapy Lab II
(Corequisites: RT 111, 122C, 133)
Applies respiratory care procedures learned in RT 111 using equipment in simulated patient situations. (3 hours a week)
*RT 121C - Clinical Experiences I
5
(Corequisites: RT 110, 115L, 131)
Applies knowledge and skills in supervised patient care experiences in the hospital setting . (15 hours a week)
*RT 122C - Clinical Experiences II
(Corequisites: RT 111,116L, 133)
Provides clinical experiences in area hospitals and healthcare facilities. ( 15 hours a week)
RT 131 - Physics of Respiratory Therapy
(Corequisites: RT 110, 115L, 121C)
Covers basic concepts of physics related to physiology of the lungs, gas laws, gas flow and mechanics of breathing. Concepts are applied to operation of respiratory therapy equipment.

## RT 133 - Pharmacology of Respiratory Therapy

## (Corequisites: RT 111, 116L, 122C)

Presents concepts and principles of pharmacologic agents used in cardiopulmonary care. Includes study of biologic interactions, dosage calculations, side effects, indications for medication, therapeutic, diagnostic procedures and ethical and legal issues.
RT 210 - Advanced Respiratory Therapy I
(Prerequisites: RT 111, 116L, 122C, 133; corequisites: RT 215L, 221C, PHIL 245M)
Presents cardiopulmonary assessment and diagnosis for the advanced practitioner including correlation of cardiopulmonary anatomy,
physiology and pathophysiology with eval-uation of cardiac and pulmonary function. Uniform fee: $\$ 20$

## RT 211 - Advanced Respiratory Therapy II

 222C, BIO 238/248L)Presents concepts of adult critical care medicine including adult intensive care and pathophysiology of diseases.
RT 212 - Advanced Respiratory Therapy III
(Prerequisites: RT 211, 216L, 222C; corequisites: RT 217L, 223C, BIO 239/239L)
Presents concepts of critical care medicine for children and infants including the concepts of rehabilitative practice and home healthcare for patients with chronic cardiopulmonary diseases.

## RT 215L - Advanced Respiratory Therapy Lab I

(Corequisites: RT 210, 221C)
Presents clinical assessment techniques, cardiopulmonary anatomy and physiology, pulmonary function testing hemodynamic monitoring and advanced cardiac life support in a state of the art learning laboratory. (3 hours a week)

RT 216L - Advanced Respiratory Therapy Lab II
(Corequisites: RT 211, 222C)
Provides of mechanical ventilation procedures related to critical care medicine for adults using patient and computer simulation in the learning laboratory. (3 hours a week)

## RT 217L - Advanced Respiratory Therapy Lab III <br> (Corequisites: RT 212, 223C)

Provides of mechanical ventilation procedures related to critical care medicine for children and infants using patient and computer simulations in the learning laboratory. (3 hours a week)
*RT 221C - Advanced Clinical Experiences I
(Corequisites: RT 210, 215L)
Applies skills for advanced respiratory care in clinical settings with emphasis on problem-solving and decision-making skills. Experiences include cardiopulmonary function and evaluation activities. (15 hours a week)

## *RT 222C - Advanced Clinical Experiences II

(Corequisites: RT 211, 216L)
Applies skills for respiratory care in adult critical care environments with emphasis on problem-solving and decision-making skills, patient evaluation skills and the evaluation of therapeutic care plans. ( 15 hours a week)

## *RT 223C - Advanced Clinical Experiences III

 (Corequisites: RT 212, 217L)Applies skills for respiratory care in pediatric and neonatal critical care environments and for home healthcare and pulmonary rehabilitation. Includes independent study project in an area of respiratory care. Uniform fee: $\$ 125$ ( 15 hours a week)

## RT 296-Special Topics in Respiratory Care

(Prerequisite: permission of program director)
Participate in supervised learning of advanced, specialized practices including cardiopulmonary diagnostics, and specialized prenatal/ pediatric or adult critical care.

## RT 297-Special Problems

(Prerequisite: permission of program director)
Provides opportunity for independent study in respiratory care such as preparation for licensing/credentialing exams.

## RT 298 - Internship

(Prerequisite: AS RT Graduate and permission of program director)
Allows graduates of the AS RT program to continue in conjunction with the UNM Health Sciences Center. Graduates will participate in nationally funded research projects that explore diagnosis, treatment, education and research.

## SCSE - Sportscraft/Small Engine Courses

SCSE 170L - Small Engine Skills Improvement I 3
Covers the diagnosis and repair of small air-cooled engines, safety, engine identification, special tools, ignition, cooling, lubrication, engine rebuilding and fuel systems. ( 15 theory +75 lab hours a term)

## Course Number/Course Name

Credit Hours
SCSE 171L - Small Engine Skills Improvement II
(Prerequisite: SCSE 170L or department approval)
Presents safe practices in the diagnosis and repair of power equipment, chain saw service and chain sharpening, blower and line trimmer service. ( 15 theory +75 lab hours a term)

## SMAP- Sheet Metal Apprenticeship

## SMAP 198 - Sheet Metal Apprenticeship

(Prerequisite: current full-time employment in the sheet metal industry or department approval)
Covers 600 hours of related classroom instruction. Instruction covers safety, trade math, sheet metal processes, triangulation lay-out, radial line layout, parallel line layout, blueprint reading and Sheet Metal and Air Conditioning National Assn. (SMACNA) manuals.

SMT - Semiconductor Manufacturing Tech Courses

## SMT 201 - Semiconductor Manufacturing

 Technology ITheory(Prerequisites: ELEC 103L, 105L, MT 205; corequisite: SMT 201L) Introduces integrated circuit manufacturing, including the basics of semiconductor materials and devices, integrated circuits, cleanroom technology and topics in wafer processing. Laboratory exercises are conducted in a cleanroom. (2 theory hours week)

## SMT 201L - Semiconductor Manufacturing Technology I Lab

(Pre- or corequisite: SMT 201)
This is the lab course for SMT 201. Students meet once per week. (3 lab hours a week) Course fee: $\$ 60$

## SMT 211 - Semiconductor Manufacturing Technology II Theory

(Prerequisites: SMT 201, 201L, ELEC 114L; corequisite: SMT 211L) Expands the topics presented in SMT 201 with greater detail. Includes the process steps to construct and test simple PMOS field effect transistor devices in laboratory experiments. (2 theory hours a week)

## SMT 211L - Semiconductor Manufacturing Technology II Lab

(Pre- or corequisite: SMT 211)
This is the lab course for SMT 211. (3 lab hours a week) Course fee: $\$ 60$

## SOC - Sociology Courses

## SOC 101 - Introduction to Sociology

(Prerequisite: RDG 100)
Introduces basic concepts and theories of contemporary sociology: culture, socialization, social groups, deviance, race and ethnicity, gender, age, family, medicine and religion.
SOC 111 - Criminal Justice System
(Prerequisites: RDG 100 and SOC 101)
Surveys criminal justice processes. Explores law, law enforcement, prosecution, defense, trial, and sentencing.

## SOC 211 - Social Problems

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

[^8]Course Number/Course Name
Credit Hours

## SOC 212 - Juvenile Delinquency

(Prerequisite: SOC 101)
Emphasizes theories of juvenile delinquency, child abuse, the juvenile justice system, probation, treatment, and corrections for juveniles.

## SOC 213 - Deviant Behavior

(Prerequisite: SOC 101)
Examines theories of deviance and behaviors such as rape, murder, theft, drug use, alcoholism, prostitution, mental disorders, and suicide.

## SOC 214-Sociology of Corrections

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

## SOC 215 - Criminology

(Prerequisite: SOC 101)
Examines causes of crime based on sociological factors, the various faces of crime, the criminal past and present, and criminology theory.

## SOC 216 - Ethnic and Minority Groups

(Prerequisite: SOC 101)
Examines relationships among majority and minority and ethnic groups: prejudice, discrimination, stereotyping, pluralism, and social mobility.

## SOC 225-Sociology of Family

(Prerequisite: SOC 101)
Presents major theories of the family and the status of the modern family in an era of varied family forms.

## SOC 230-Society and Personality

## (Prerequisite: SOC 101 or PSY 105)

Introduces topics in social psychology, such as personality theories, concepts of self, human relationships, small group dynamics, and organizational theories.

## SOC 235-Sociology of Gender

## (Prerequisite: SOC 101 or PSY 105)

Focuses on the nature and content of gender in the U.S.; theoretical viewpoints from the social sciences applied to issues of socialization, family, culture, media, education, work, politics, and economics; the impact of gender differentiation on personality development and social interaction.

## SOC 280 - Social Science Research

(Prerequisite: SOC 101)
Introduces decision-making processes and tools involved in social science research, including surveys, field research, experiments and use of existing sources.

## SOC 296 - Topics in Sociology

(Prerequisite: RDG 100)
Presents various topics. See Schedule of Classes.

## SPAN - Spanish Courses

SPAN 101 - Beginning Spanish I
(Prerequisite: RDG 100)
Introduces listening, speaking, and grammatical skills for students with no previous exposure to Spanish.

SPAN 102 - Beginning Spanish II

## Course Number/Course Name

Credit Hours
Continues course of study begun in SPAN 101: listening, speaking, grammatical skills.
SPAN 103 - Beginning Spanish I Conversation
(Pre- or corequisite: SPAN 102 or permission of instructor) Introduces basic conversational skills and practice speaking Spanish.

## SPAN 111 - Heritage Spanish Language I

(Prerequisite: RDG 100)
Designed for students who have been exposed to Spanish in the home and community environments, consider Spanish their heritage language, and wish to expand their skills. Emphasizes speaking, reading, and grammatical concepts.

## SPAN 112 - Heritage Spanish Language II

(Prerequisite: SPAN 101 or 111)
Continues skills acquisition begun in SPAN 111. Emphasizes reading and writing with extension of study of grammatical concepts.
SPAN 201 - Intermediate Spanish I
(Prerequisite: SPAN 102)
Reviews grammar and emphasizes expansion of conversational skills while developing reading proficiency.

## SPAN 202 - Intermediate Spanish II

(Prerequisite: SPAN 201)
Continues course of study begun in SPAN 201, providing conversational activities and emphasis on writing skills.

## SPAN 203 - Intermediate Spanish II Conversation

(Pre- or Corequisite: SPAN 202 or permission of instructor) Emphasizes skills in speaking Spanish.

## SPAN 275 - Accelerated Beginning Spanish

(Prerequisite: RDG 100 or permission of instructor) Combines SPAN 101 and 102 in one term; 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
(Prerequisite: SPAN 102 or SPAN 275 or permission of instructor) Combines SPAN 201 and 202 in one term; recommended for language enthusiasts or those who have had exposure to Spanish either in the home or from previous study.

## SPAN 277 - The Art and Skill of Translation

(Prerequisite: SPAN 202 or SPAN 276, or permission of instructor)
Introduces the art and profession of translation with a focus on practical translation problems in Spanish. Texts from the areas of journalism, law, business, and literature are translated from Spanish to English and from English to Spanish. Class conducted in Spanish.

## SPAN 280 - Introduction to Hispanic Literature

(Prerequisite: SPAN 202 or SPAN 276 or permission of instructor) Presents selected readings from literature written in Spanish by Spanish and Spanish-American authors.

## SPAN 296 - Topics in Spanish

Presents various topics. See Schedule of Classes.

## SSKL - Skills Courses

SSKL 096 - Special Topics
Presents various topics in study skills.
SSKL 100 - Student Success
Provides an opportunity to learn and adopt methods for success in school. Includes time management, test taking, note taking techniques, and development of a personal study system for school
success. ( 3 theory hours +1 lab hour a week)
SSKL 211 - Employment Skills-General
Prepare job portfolios that include cover letter, resumés and followup letters. Covers employer expectations, interview techniques and communicating with business and industry. Employability and job retention skills are stressed.

## ST - Surgical Technology Courses

ST 110 - Beginning Surgical Technology I
(Prerequisites: BIO 123/124L, BIO 136/139L or BIO 237/247L, COMM 221; corequisites: ST 112L, 114C)
Includes scope of practice, technologist role, medical ethics, medical terminology, basic principles of aseptic technique and anatomy and physiology applied to surgical procedures.

## ST 112L - Surgical Technology Lab

(Corequisites: ST 110, 114C)
Provides opportunity to practice clinical skills and competencies developed in the classroom. Includes surgical technique (setting up the sterile field, scrubbing, gowning and gloving) and standards of practice. ( 24 hours a week for 6 weeks)

## ST 114C - Surgical Technology Clinical I

## (Corequisites: ST 110, 112L)

Applies of surgical procedure theory and skills in the clinical setting. Uniform fee: \$70 (32 hours a week for 9 weeks)

## ST 120-Advanced Surgical Technology II

(Prerequisites: ST 110, 112L, 114C; corequisite: ST 124C) Continues surgical technology theory with a focus on general and specialty surgical procedures.

## ST 124C - Surgical Technology Clinical II

## (Corequisite: ST 120)

Applies of surgical procedure theory and skills in the clinical setting with emphasis on a variety of specialty areas. (24 hours per week for 15 weeks)

## THEA - Theater Courses

## THEA 122 - Introduction to Theater

(Recommended: ENG 101)
Introduces study of the history and role of theater past and present: the nature of theater art, theater traditions ranging from the Ancient Greeks to Epic Theater, elements that make up a production.
THEA 296-Topics in Theater
Presents various topics. See Schedule of Classes.

## TRDR - Truck Driving Courses

## TRDR 101 - Basic Operational Theory

(Prerequisites: RDG 099 or equivalent, MATH 097 or equivalent) Covers 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. (26.25 theory hours a week for 4 weeks)

## TRDR 102L - Basic Operational Lab

(Prerequisites: TRDR 101, CDL learner's permit, DOT physical, DOT drug screen, and DMV record)
Covers on-the-driving-range vehicle inspection, basic control, shifting, backing, coupling and uncoupling, hazard perception, visual search, speed and space management, preventive maintenance and handling cargo. Course fee: \$200. (25 lab hours a week for 6 weeks = 150 lab hours a term)

## Course Number/Course Name

Credit Hours
TRDR 103L - Advanced Operational Practices
(Prerequisites: TRDR 101, 102L)
Presents skills needed to cope with hazards of the roadway environment are presented during day and evening hours on mountain grades, urban and rural roads, interstates and docking facilities. Course fee: \$250. (27 lab hours a week for 5 weeks $=135$ lab hours a term)
TRDR 171 - Material Handling
Presents basic forklift/hand truck operation and basic material handling along with forklift safety inspections and cost factors of improper handling. ( 1 theory +2.5 lab hours a week $=15$ theory + 37.5 lab hours a term)

TRDR 296 - Special Topics 1-6
Presents in-depth study of problems and the advanced tech-niques that experts in the trucking industry use to solve them.
TRDR 297 - Special Problems Variable
(Prerequisite: department approval)
Focuses on a specific problem while working with an instructor.

## VICA - SkillsUSA/VICA Courses

VICA 174 - Professional Development
Emphasizes development of goals and commitments, personal awareness, time management, organization and communication.
VICA 175 - Leadership
Reviews committee work including agenda setting, parliamentary procedures, team building; participation in community service projects and improvement of communication skills.

## VICA 176 - Career Planning

Introduces career information, report writing, conducting interviews, employment skills, communication improvement and interaction with business and industry.
VICA 178 - Civic Responsibility
Covers various community services in planning and carrying out a community project.

## WELD - Welding Courses

WELD 104L - Oxyacetylene Welding and Cutting
(Prerequisites: RDG 098 or equivalent, MATH 097 or equivalent or department approval)
Presents safety and use of oxyacetylene equipment. Provides training in thermal cutting torches, fusion welding, welding of alloys and general all position welding. ( 5 lab hours a week $=75$ lab hours a term)

## WELD 105L - Oxyacetylene Brazing/Soldering and Fabrication

(Prerequisites: RDG 098 or equivalent, MATH 097 or equivalent or department approval)
Presents instruction in safety, brazing and soldering. Fluxes are applied to various metal and filler metals. Basic fabrication and repair problems are used for practical applications. (5 lab hours a week $=75$ lab hours a term)

## WELD 106L - Introduction to SMAW

(Prerequisites: RDG 098 or equivalent, MATH 097 or equivalent or department approval)
Covers topics in shielded metal-arc welding (SMAW) safety, basic fabrication and repair, and customer relations. (5 lab hours a week $=75$ lab hours a term)

## WELD 107L - Introduction to SMAW Qualifications and Fabrication

(Prerequisites: RDG 098 or equivalent, MATH 097 or equivalent or department approval)
Provides instruction in safety and proper procedure for arc welding using basic fabrication and repair problems for practical applications. ( 5 lab hours a week $=75$ lab hours a term)

WELD 108 - Introduction to Metallurgy 2

Introduces basic science of metals, including structure and welding processes for ferrous and non-ferrous metals. Covers principles of safety and human relations.

## WELD 114L - Advanced SMAW

(Prerequisites: WELD 106L and 107L or department approval) Presents advanced instruction in SMAW with a strong emphasis on safety, work ethics, and shop procedures. ( 5 lab hours a week $=75$ lab hours a term)

## WELD 115L - Introduction to GMAW and Fabrication Lab

(Prerequisite: WELD 106L or department approval)
Covers mig welding safety techniques. Fabrication and repairs are assigned. Teamwork is stressed. ( 5 lab hours a week $=75$ lab hours a term)

## WELD 116L - Introduction to GTAW and Fabrication Lab

(Prerequisite: WELD 106L or department approval) Emphasizes application of safety and TIG welding on aluminum and stainless steel. Fabrication and repairs are stressed. Customer billing techniques are introduced. ( 5 lab hours a week $=75 \mathrm{lab}$ hours a term)

## WELD 117L - Qualifications for SMAW and GMAW

(Pre- or corequisites: WELD 114L and 115L or department approval)
Provides simulated qualification procedures are provided for arc and mig welding in all positions. ( 5 lab hours a week $=75$ lab hours a term)

## WELD 170 - Welding Skills

Introduces safety practices, basic tools and equipment, operating procedures and applications of oxyacetylene and arc welding. (1 theory +5 lab hours a week $=15$ theory +75 lab hours a term)

## WELD 171 - Advanced Welding Skills

(Prerequisite: WELD 170 or department approval)
Introduces mig and tig welding, basic math and blueprint reading. $(1$ theory +5 lab hours a week $=15$ theory +75 lab hours a term $)$

Course Number/Course Name
Credit Hours
Covers advanced aluminum and stainless steel wire feed welding and specialized fabrication/repair. Customer problems, teamwork, problem solving and work ethics are stressed. (5 lab hours a week = 75 lab hours a term)

## WELD 208L - Qualifications for GTAW

Covers simulated qualification procedures for tig welding in all positions. (5 lab hours a week $=75$ lab hours a term)

## WELD 296 - Special Topics

1-6
(Prerequisite: department approval)
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 certification or recertification exams.

WELD 297 - Special Problems
Variable
(Prerequisite: department approval)
Focuses on a specific problem while working with an instructor.

## WELD 202 - Advanced Blueprint Reading

(Prerequisite: MATT 113 or department approval)
Covers pipe layout and development, structural print reading and design and layout considerations related to fabrication, material and cost estimating.

## WELD 205L - Pipe Layout and Welding

(Prerequisite: WELD 114L or department approval) Introduces basic pipe welding and layout, materials testing and industrial safety, as well as welding problems. ( 5 lab hours a week $=75$ lab hours a term)

## WELD 206L - Advanced GMAW and Fabrication

(Prerequisite: WELD 117L or department approval)
Focuses on instruction in advanced carbon steel wire feed welding, fabrication/repair, problem solving, and teamwork. (75 lab hours a term)

## STUDENT CODES AND POLICIES

Note: The codes and policies found in this catalog section are subject to change without notice. All changes go into effect immediately and students are accountable for adhering to them. Revised, updated and changed policies and codes can be found at www.tvi.cc.nm.us.

As a student, you are an active and vital part of the TVI educational community; a community dedicated to protecting the freedom of individuals to inquire, study, evaluate, question, and gain new levels of knowledge and understanding. As with other communities, TVI has put specific policies and expectations in place that define acceptable behavior necessary to both protect individual freedoms and ensure responsible citizenship. As a member of the TVI community, it is your responsibility to understand, and adhere to, the codes and policies that govern and prescribe acceptable student behavior.

In this section, the Student Code of Conduct and other policies which establish expectations regarding student behavior are fully explained. Questions regarding this section of the catalog should be addressed to the Dean of Students.

## STUDENT CODE OF CONDUCT 2001-2002

Through its academic offerings and support services, TVI provides the opportunity for learning. Taking advantage of the opportunity is the student's responsibility.

The Institute gives equal consideration to all applicants for admission. The appropriate facilities and services of TVI shall be available to enrolled students. Any student in good standing with TVI has the right to register for and attend any class for which he or she has met the prerequisites and placement requirements.

Students are expected to be fully acquainted with all published policies and procedures of TVI and will be held responsible for compliance with them. In addition to this catalog section, policies are published in the Student Handbook, in some department handbooks, especially in the Health Occupations Department, and in course syllabi.

## I. INTRODUCTION

A. Purpose-The freedom of individuals to inquire, study, evaluate and gain new understanding and maturity is essential and must be protected against suppression. Dissent plays a vital part in the role of the Institute. However, freedoms cannot be protected or exercised in an Institute that lacks order and stability. Students at all Albuquerque Technical Vocational Institute (TVI) campuses and learning centers have an obligation to uphold the laws of the larger community of which they are part.

The intent of this Code is to ensure that students at TVI neither lose their rights nor escape the responsibility of citizenship. While the activities covered by the laws of the larger community and those covered by TVI's rules may overlap, it is important to note that the community's laws and TVI's rules operate independently and that they do not
substitute for each other. TVI may pursue enforcement of its own rules whether or not legal proceedings are under way or in prospect, and may use information from third-party sources (such as law enforcement agencies and the courts) to determine whether the Institute's rules have been broken. Membership in the TVI community does not exempt anyone from local, state or federal laws, but rather imposes the additional obligation to abide by all of TVI's regulations. It is the personal responsibility of every member of the campus community not only to protect his/her own rights, but to respect the rights of others and to behave in a manner conducive to learning and/or living in an educational environment.

Just as individuals within the community have a responsibility to adhere to a code of prescribed behavior, the institution assumes the obligation of clearly codifying and fairly enforcing same. TVI upholds the belief that those who do not conform to established standards set forth in this Code of Conduct must be held accountable for their actions. Therefore, the purpose of the Code of Conduct is to inform the student body of the rules and regulations that are essential to the normal operation of TVI.
B. Definition of Student - For the purpose of application of this Code of Conduct, "student" means any person enrolled or taking a course at TVI, which includes all campuses and all other TVI instructional locations. Any person who is not officially enrolled, admitted to or registered with TVI for a particular term but who is, has been or intends to be a student is considered a student. Students who violate the Code of Conduct can expect prompt and deliberate adjudication, whether or not they choose to be present or remain at TVI. Furthermore, if a decision has been made within the disciplinary process which impacts a person who is not currently enrolled, he/she still remains subject to the determination upon re-enrollment. Students are responsible for maintaining their current address with TVI. The address on record will be deemed the appropriate address for delivery of correspondence from the Office of Student Judicial Affairs (Dean of Students).
C. Students' Rights and Responsibilities - By enrolling at TVI, a student accepts responsibility for compliance with all local, state and federal laws and with TVI's regulations while retaining the rights guaranteed under the Constitutions of the United States and the state of New Mexico. A student or student organization alleged to have engaged in any misconduct shall have the right of due process and appeal as delineated in this Code. The Institute expects all students to show respect for the rights of others and for authority, to protect private and public property, to carry out contractual obligations and to take responsibility for their own actions and the actions of their guests.
D. Student Organizations - A student organization and its officers and members may be held collectively and individually responsible when violations of this Code by those associated with the organization occur and when such violations are authorized, encouraged, directed, tolerated, supported by or committed on behalf of the organization.

## II. ADMINISTRATION OF DISCIPLINE

The responsibility of administering the discipline system is delegated by the president of TVI to the vice president for student services for non-academic discipline and to the vice president for instructional services for academic discipline. In turn, these officers may delegate authority to other groups or
individuals for handling violations of the Student Code of Conduct. All non-academic Student Code activities shall be monitored by the Dean of Students to ensure fairness and consistency. All discipline sanctions imposed Institute-wide will be reported to the Dean of Students for record-keeping purposes.

The Institute attempts to handle discipline matters at the lowest possible level by recognizing a variety of hearing officers. Each hearing officer is a TVI official who is an administrator, faculty member or staff member. Hearing officers adjudicate cases when violations are alleged. The hearing officer is authorized to exercise active control over the proceedings in order to elicit relevant information, to avoid needless consumption of time and to prevent the harassment or intimidation of witnesses.

Disciplinary regulations at TVI are set forth in writing in order to give students general notice of prohibited conduct. These rules and regulations should be read broadly and are not designed to define prohibited conduct in exhaustive terms. It is recognized by TVI that students are adults and are expected to obey the law and take personal responsibility for their conduct. A student is therefore subject to two sources of authority: civilcriminal authority and TVI's authority.

Violation of any municipal ordinance, law or regulation of the State of New Mexico or law or regulation of the United States which may cause harm or endangerment to self or others or somehow compromises the educational mission of the Institute may result in disciplinary action. The Institute does not normally take disciplinary action for off-campus violations, but it retains the right to act in special cases. Disciplinary action imposed by TVI may precede, and be in addition to, any penalty that might be imposed by an off-campus authority.

When charged with a violation, a student has a right to review the evidence against him or her, but this does not necessarily mean the right to confront a witness. Attorneys will be allowed to attend but may not participate in hearings. Charged students may decide what and how much information they will provide during a discipline hearing.

The procedures to be followed in matters of student misconduct are outlined in the following sections.

## III. ACADEMIC DISHONESTY

Any student found to have committed plagiarism or academic cheating will be subject to the disciplinary process outlined in the Academic Dishonesty and Minor Classroom Misconduct Process found on page XX of this catalog.

## IV. NON-ACADEMIC MISCONDUCT: ALL STUDENTS

A. Person and/or Groups Involved in Non-academic Discipline Cases

1. Dean of Students-The Dean of Students Office will dispose of any non-academic misconduct violations referred by the vice president for student services or other TVI officials, and also has responsibility for maintaining all student records relating to student non-academic misconduct. Within this capacity, the Dean of Students serves as a resource person for administrators, faculty, staff and students to promote consistency throughout the Institute community in adjudicating cases of student non-academic misconduct. The Dean of Students also can act as a hearing officer and may appoint other hearing officers.
2. Hearing Committee-The Dean of Students may hear discipline issues, may designate others to hear discipline issues, or may refer the issue to the TVI Hearing Committee. The committee hears non-academic misconduct issues referred to it by the Dean of Students. The committee shall be composed of TVI administrators, faculty members, and students appointed by the Dean of Students. The students will be selected from a pool of names recommended by the various student organizations of the Institute. Two
administrative and/or faculty members and one student member will be required to be present at each hearing.
3. Associate Vice President for Student Services-The Associate Vice President for Student Services will function as a judicial/hearing officer and will hear appeals as necessary.

## B. What Constitutes Non-Academic Misconduct

The following constitute violations for which students and student organizations are subject to disciplinary action. These are not designed to be all-inclusive, but offer examples of the types of prohibited conduct:

## DISRUPTION VIOLATIONS

1. Participation in an unauthorized campus demonstration which disrupts the normal operations of TVI and infringes on the rights of other members of the TVI community; leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area; intentional obstruction which unreasonably interferes with freedom of movement, either pedestrian or vehicular, on campus.
2. Unauthorized mass action, obstruction or disruption of classes or TVI events, removal or defacement of library or other TVI materials or properties, participation in commercially sponsored solicitation, behaviors that violate federal, state or local ordinances.
3. Disruption or obstruction of teaching, research, administration, disciplinary proceedings, other TVI activities, including its public-service function on or off campus, or other authorized non-TVI activities, when the act occurs on TVI premises.
4. Any violation of federal, state or local law if such directly affects TVI's pursuit of its proper educational purpose and only to the extent such violations are not covered by the standards of conduct and only where a specific provision of statute or ordinance is charged in the complaint.
5. Any intentional interference with or obstruction of any institutional activity, program, event or facilities, including the following: any unauthorized occupancy of institution or institutionally controlled facilities or blockage of access to or from such facilities; interference with the right of any institution member or other authorized person to gain access to any institution or institutionally controlled activity, program, event or facilities; or any obstruction or delay of a campus security officer, fire fighter or any institution official in the performance of his or her duty.
6. Obstruction of the free flow of pedestrian or vehicular traffic on TVI premises or at TVI sponsored or supervised functions.

## PERSON VIOLATIONS

1. Actual or threatened physical injury to any person (including self) on TVI owned or controlled property or at a TVI sponsored or supervised function or conduct that endangers the health, safety or personal well being of a person.
2. Engaging in individual or group conduct that is violent (including sexual misconduct, attempted suicide or threats of either), abusive, indecent, unreasonably loud or similar disorderly conduct that infringes upon the privacy, rights or privileges of others or disturbs the peace or the orderly process of education on campus.
3. Hazing, defined as an act which endangers the mental or physical health or safety of a student or which destroys or removes public or private property, for the purpose of initiation, admission into, affiliation with or as a condition for continued membership in a group or organization.
4. Harassment or abuse directed toward individuals or groups may include at least the following forms: the use or threat of physical violence, coercion, intimidation and verbal
harassment and abuse. Harassment and abuse may be discriminatory. Although all forms of harassment and abuse-both discriminatory and non-discriminatory-are equally prohibited, TVI's commitment to non-discrimination means that discriminatory harassment may be punished more severely than non-discriminatory forms of harassment.
5. Sexual abuse, including but not limited to sexual harassment, coercion and threats or use of force.
6. Any actual or threatened non-consensual sexual act.
7. Harassment or acts of insensitivity or intolerance toward individuals/groups, including groups defined by race, creed, national original, disability, sexual orientation and veteran status.
8. Verbal or written abuse, according to accepted court decisions, which is likely to cause another person humiliation, stress, psychological harm or which is harassing in nature.
9. Public display of literature, films, pictures or other material that, according to accepted court decision, depicts or describes sexual conduct in a patently offensive way and lacks serious literary, artistic, political or scientific value.

## PROPERTY VIOLATIONS

1. Attempted or actual theft of and or damage to property of TVI or property of a member of the TVI community or other personal or public property.
2. Any graffiti or other act of misuse, vandalism, malicious or unwarranted damage or destruction, defacing, disfiguring or unauthorized use of property belonging to the institution including, but not limited to, fire alarms, fire equipment, elevators, telephones, institution keys, library material and/or safety devices, walls, floors and ceilings.

## FALSEHOODS/IDENTIFICATION VIOLATIONS

1. Forgery, counterfeiting, alterations or misuse of any TVI record, document or identification card.
2. Knowingly furnishing false information to TVI personnel or member of any hearing board acting in performance of their duties or the failure to provide TVI personnel with adequate information upon request.
3. Making a false report concerning a fire, bomb or other emergency.
4. Failure to possess at all times valid identification and/or failure to present ID to TVI officials upon proper request. Failure to comply with directions of TVI officials, faculty, staff or law enforcement officer acting in performance of their duties and/or failure to identify oneself to these persons when requested to do so.
5. Intentionally and falsely accusing a TVI employee or another student of a wrongdoing.

## SAFETY VIOLATIONS

1. Unauthorized use, possession or storage of any weapon or explosive (including fireworks) on TVI premises or at TVI sponsored activities.
2. Tampering with fire extinguishers, fire alarm boxes or smoke or heat detectors anywhere on TVI property.
3. Creating a fire, safety or health hazard.
4. Ejecting any objects from windows, roofs or balconies of TVI buildings.
5. Students are not permitted on the roofs of TVI buildings.

## COMPUTER VIOLATIONS

1. Unauthorized entry into or alteration of any TVI computer records or violation of the TVI Technology Use Policy.
2. Violation of the New Mexico Computer Crimes Act, including intentional and unauthorized access, alteration, damage, copying or destruction of any computer system or data.
3. Theft or abuse of computer time, including but not limited to:
a. Unauthorized entry into a file, to use, read or change the contents or for any other purpose.
b. Unauthorized transfer of a file.
c. Unauthorized use of another individual's identification and password.
d. Use of computing facilities to interfere with the work of another student, faculty member or TVI official.
e. Use of computing facilities to send obscene or abusive or threatening messages.
f. Use of computing facilities to interfere with normal operation of the TVI computing system.

## ENTRY/USE VIOLATIONS

1. Entry into or use of any building, facility or room or other TVI property or grounds without authorized approval. This also includes the unauthorized possession or use of TVI keys, lock combinations or other access codes.
2. Entering or attempting to enter any social event or other event without proper credentials for admission (e.g., ticket, identification card or invitation).
3. Unauthorized use of TVI telephones for long-distance calls.

## LEGALVIOLATIONS

1. Unlawful possession, use, distribution or sale of any narcotic or dangerous drug as defined by the statutes of the state of New Mexico.
2. Violation of federal, state or local law on TVI premises or at TVI sponsored or supervised activities.
3. Possession or consumption of alcoholic beverages in contradiction of state law and/or TVI policy.
4. The violation of local, state or federal criminal statutes shall be in violation of this code, whether or not such violation is prosecuted by public officials. TVI may refer such violations to appropriate law enforcement agents.
5. The use or possession of equipment, products or material used or intended for use in manufacturing, growing, using or distributing any drug or controlled substance.
6. Participation in illegal gambling activities on TVI owned or controlled property or at a function identified with TVI.
7. Embezzling, defrauding or procuring any money, goods or services under false pretenses.

## FINANCIALVIOLATIONS

1. Failure to make satisfactory settlement for any debts to TVI.
2. Issuing a check on campus knowing that it will not be honored when presented for payment.

## GENERALVIOLATIONS

1. Violation of published TVI policies, rules or regulations.
2. Soliciting or selling in violation of the solicitation policy.
3. Having an animal on campus in violation of TVI policy.
4. Dispersing litter in any form onto the grounds or facilities of the campus.
5. Unauthorized use of cell phones, pagers and other electronic equipment in classrooms and laboratories.
6. Unauthorized use of sirens, loudspeakers and other sound amplification equipment.
7. The use of rollerblades or skateboards on TVI property.
8. Smoking inside TVI buildings.
9. Parking bicycles outside of designated areas.
10. Drinking and eating in classrooms, laboratories and libraries.
11. Bringing children to classes, labs or other instructional activities or to judicial affairs hearings.

## JUDICIALAFFAIRSVIOLATIONS

Abuse of the judicial system, including but not limited to:
a. Failure to obey the summons of a judicial body or TVI official.
b. Falsification, distortion or misrepresentation of information before a judicial body.
c. Disruption or interference with the orderly conduct of a judicial proceeding.
d. Institution of a judicial proceeding knowingly without cause.
e. Attempting to discourage an individual's proper participation in or use of the judicial system.
f. Attempting to influence the impartiality of a member of a judicial body (including witnesses) prior to and/or during the course of the judicial proceeding.
g. Harassment (verbal or physical) and/or intimidation of a member of a judicial body prior to, during and/or after a judicial proceeding.
h. Failure to comply with the sanction(s) imposed under the Student Code.
i. Influencing or attempting to influence another person to commit an abuse of the judicial system.

## C. Non-academic Discipline Process

All alleged violations of non-academic rules and regulations contained herein will be referred to the Dean of Students' Office or other hearing officers (as appropriate). Any charge should be submitted as soon as possible. The following procedures will apply:

1. As a result of an investigation and/or conference with a student or organization representative, one of the following actions may be taken:
a. The allegation may be dismissed as unfounded;
b. The allegation may be dismissed for lack of a preponderance of the evidence;
c. The student or organization representative may admit responsibility for violating the Code of Conduct and a sanction will be imposed; or
d. The Dean of Students or a Hearing Committee will deem the student responsible for Code of Conduct violations, based on a preponderance of the evidence, and a sanction will be imposed.
2. The student or organization wishing to appeal the decision of the Dean of Students or Hearing Committee may do so in writing to the next higher level of authority within the disciplinary system or to their designee. The accused must always be informed of the next level of appeal by the Dean of Students or designee. An appeal by the accused must be presented in writing to the Dean of Students Office no later than three working days after notification of the decision. The final level of appeal for all non-academic misconduct is the Associate Vice President for Student Services.
D. Non-Academic Discipline Appeal Process

Students receiving a discipline decision from the Dean of Students or a Hearing Committee have the right to request an appeal. If the criteria to determine whether the issue warrants additional consideration are met, the Associate Vice President of Student Services (or designee) will hear the appeal. The following points apply to all discipline-related appeals:

1. The appeal must be made in writing to the Associate Vice President of Student Services within the specified period of time and must include the following:
a. The name of the individual or organization making the appeal.
b. The action that is being appealed and the date the action took place.
c. The grounds for the appeal.
2. The appeal must be based on one or more of the following grounds:
a. Procedural or prejudicial error was committed.
b. The finding of facts contained in the decision included inaccurate information.
c. Specific information presented at the hearing/discipline meeting is objectionable. The reason for the objection must be stated (i.e., why specific evidence should not be considered).
d. Information not offered during the hearing/discipline meeting is now available. The reason why the information was not offered during the original hearing/discipline meeting must be stated.
e. The sanction imposed is excessive or inappropriate. The reason for believing this must be stated.
3. Upon review of the appeal, the Associate Vice President of Student Services (or designee) may deny the appeal or uphold and remand the appeal to the Dean of Students for reopening of the hearing to allow reconsideration of the original determination and/or sanction(s). Except as required to explain the basis of new evidence, an appeal shall be limited to review of the verbatim record of the most recent official hearing and supporting documents. In the event of a remand of appeal, a written rationale will be provided by the Associate Vice President of Student Services (or designee) and should be in accordance with one or more of the legitimate grounds for appeal as detailed above.
4. A review of the sanction(s) in a non-academic discipline process may not result in more severe sanction(s) for the accused student. Instead, following an appeal, the sanction may remain as originally determined, be reduced, but may not be increased.

## V. DISCIPLINARY ACTIONS AND SANCTIONS

A. The following list is not designed to be all inclusive, but offers examples of the more severe sanctions that may be imposed upon an individual student for infraction of regulations.

1. Disciplinary Probation-This sanction is an official warning that the student's conduct is in violation of TVI regulations or local, state and/or federal laws. Students placed on disciplinary probation are deemed to be not in good standing with TVI. The duration of the probationary period, and conditions imposed, shall be in proportion to the seriousness of the misconduct. Duration will be at least 30 days, but may be extended indefinitely. Depending on the circumstances and at the discretion of the hearing officer(s), additional stipulations may be enforced. These additional stipulations may be, but are not limited to, withholding of transcript or degree; suspension of rights and privileges; suspension of eligibility to participate in official extracurricular activities; restitution; and referral for counseling. During the probationary period, reported violations of the Code of Conduct or conditions of the probation will result in further action. This action may include, but is not limited to, extension of the probationary period, the addition of other restrictions or conditions to the probationary agreement, suspension, dismissal, expulsion and notation on the student's transcript.

A student who has been placed on indefinite disciplinary probation and/or whose probation has been indefinitely noted on the transcript may petition to have
the probation lifted and/or the notation removed from the transcript. This petition will not be acceptable if submitted sooner than one calendar year from the date the probation began. Students must petition through the Dean of Students Office. The Dean of Students or the TVI Discipline Committee reviews the petition and makes a recommendation to the Vice President for Student Services or designee, whose decision is final.
2. Disciplinary Suspension-Disciplinary suspension is the disenrollment of a student from TVI for a defined period of time. Suspensions will last a minimum of one full term. Students may reenter TVI at the conclusion of the suspension. A notation of a suspension will be made on the student's transcript. The notation may be removed in the same manner as stated in IV. A. 1., Disciplinary Probation, following the expiration date of the suspension.
3. Dismissal-Dismissal is the disenrollment of a student for an indefinite period of time and includes a "minimum timeframe." In most cases the minimum timeframe is one year, which means the student may not petition to reenter TVI for at least one year. Extended minimum timeframes may also be defined. Students seeking to reenter TVI after completion of the minimum timeframe may do so only by consent of the Vice President of Student Services. Requests for reentry must be submitted in writing.
4. Expulsion-Expulsion is the disenrollment of a student whereby the student is not eligible for readmission to TVI. A permanent notation of expulsion will be placed on the student's transcript.
B. Interim Suspension-In certain circumstances, the Dean of Students or designee may impose a suspension prior to the hearing. In such cases, all attempts will be made to schedule the hearing with the Dean of Students or a Hearing Committee within five (5) working days of the interim suspension.

1. Interim suspension may be imposed only 1 ) to ensure the safety and well-being of members of the TVI community or preservation of TVI property; 2) to ensure the student's own physical or emotional safety and well-being: or 3) if the student poses a definite threat of disruption to or interference with the normal operations of TVI.
2. During the interim suspension, students shall be denied access to the campus (including classes) and/or all other TVI activities or privileges for which the student might otherwise be eligible, as the Dean of Students may determine to be appropriate.

## C. Student Organization Sanctions

The following are possible sanctions that may be imposed upon a student organization for infraction of regulations:

1. Disciplinary Probation-This sanction is an official warning that the organization's conduct is in violation of TVI regulations or local, state and/or federal laws. Organizations placed on disciplinary probation are deemed to be not in good standing with TVI. The duration of the probationary period and conditions imposed shall be in proportion to the seriousness of the misconduct. Duration will be at least 30 days, but may be extended indefinitely. Depending on the circumstances, and at the discretion of the Dean of Students, additional stipulations may be enforced. These additional stipulations may be, but are not limited to, suspension of rights and privileges, suspension of eligibility to participate in official extracurricular activities and restitution for damages.

During the probationary period, reported violations of the Code of Conduct or conditions of the probation will result in further action. This action may include, but is not limited to, extension of the probationary period, the addition of other restrictions or conditions to the probationary agreement or suspension or termination of TVI recognition.

The organization may return to a status of good standing with TVI at the conclusion of the probationary period, assuming all conditions have been satisfied, and upon gaining approval from the Vice President for Student Services.
2. Suspension of TVI Recognition-This sanction serves as notification to the organization that its conduct is in violation of TVI's regulations or local, state and/or federal laws and that its charter with TVI, along with all privileges afforded a recognized student organization, is being withdrawn for a specified period of time. The suspension will last a minimum of one full calendar year and will take effect immediately upon notification. As with disciplinary probation, additional conditions may be attached and further disciplinary action may result if conditions are not met.
Reinstatement of an organization's charter can only be granted by the vice president for student services after the period of suspension when all conditions of the suspension have been met.
3. Termination of TVI Recognition-This sanction serves as notification to the organization that its conduct is in violation of TVI's regulations or local, state and/or federal laws and that its charter with the Institute, along with all privileges afforded a recognized student organization, is being withdrawn immediately. The organization is not eligible for reinstatement of its charter for a minimum of five years. Reinstatement of an organization's charter can only be granted by the vice president for student services.

## VI. INTERPRETATION

Any question of interpretation regarding the Student Code of Conduct shall be referred to the Dean of Students or his/ her designee for final determination.

## VII. AMENDMENTS AND/OR REVISION TO THE CODE OF CONDUCT

Recommendations for changes related to the non-academic discipline process will be referred to the Dean of Students and the non-academic Discipline Committee through the Dean of Students Office. The Dean of Students reviews the Code of Conduct as needed and recommends changes to the Vice President for Student Services.

## VIII. STATEMENT OF LIMITATIONS

No student or student organization shall be subject to disciplinary procedures due to alleged violation of TVI's regulations unless procedures are initiated within one year from the time the alleged misconduct occurred or was made known to the Vice President for Student Services, whichever occurs later. The one-year period of limitation, as referred here, will apply only while the student is enrolled at TVI. If the disciplinary procedures cannot be completed for reasons beyond the control of TVI, a time limitation will not be imposed.

## POLICIES

## TECHNOLOGY USE POLICY AND WORLD WIDE WEB POLICY

## I. PURPOSE

A. Albuquerque TVI owns and operates a variety of computer, network and telecommunication systems which are provided for the use of TVI's students, faculty, staff, and the public in support of the programs of the Institute and are to be used for instruction, learning, research, and administrative use only. All persons using these systems are responsible for seeing that these systems are used in an effective, efficient, ethical, and lawful manner.
B. This policy as well as additional guidelines for the use of individual systems establishes rules and prohibitions that define acceptable use of these systems. Unacceptable use is prohibited, and violation of these policies is grounds for loss of privileges, as well as disciplinary action as outlined in the TVI Employee Handbook, Student Handbook, and Supervisors' Procedure Manual and possible legal sanctions under Federal, State, and local laws.

## II. AGREEMENT TO COMPLY WITH POLICY

A. All users of TVI's systems must read, understand, and comply with the policies outlined in this document, as well as any additional guidelines established by the administrators of each system. BY USING ANY OF THESE SYSTEMS, USERS AGREE THAT THEY WILL COMPLY WITH THESE POLICIES.

## III. RIGHTS

A. These systems, facilities, and accounts are owned and operated by TVI. TVI reserves all rights, including termination of service without notice, to the technology resources which it owns and operates. These procedures shall not be construed as a waiver of any rights of TVI, nor shall they conflict with applicable law. Users may have rights that are protected by Federal, State, and local laws.

## IV. PRIVILEGES

A. Access to TVI's systems is a privilege, not a right. Access to any system may be denied or revoked at any time for any reason without notice. Access and privileges on TVI systems are assigned and managed by the administrators of specific individual systems. Eligible individuals may become authorized users of a system and be granted appropriate access and privileges by following the approval steps for that system.
B. Users may not, under any circumstances, transfer or confer these privileges to other individuals. Any system account assigned to an individual shall not be used by others. The authorized user is responsible for the proper use of the system, including password protection.

## V. RESPONSIBILITIES

A. The system administrator of each system may set guidelines, consistent with this policy, in which users must conduct their activities. User agrees to become familiar with and to abide by these individual system guidelines and the acceptable use guidelines for whichever outside networks or services they may access through TVI's systems.
B. Any user who uses TVI's systems to make malicious, intimidating, hostile, harassing, or defamatory remarks, shall bear full responsibility for his or her actions. Further, by using
these systems, user agrees that individuals who transmit such remarks shall bear sole responsibility for their actions. User also agrees that TVI's role in managing these systems is only to transmit the information, and that they will not consider such transmission an endorsement by TVI. User acknowledges that TVI cannot be responsible for monitoring transmissions for compliance with these policies or law.
C. Many of TVI's systems provide access to outside networks, both public and private, which furnish electronic mail, information services, bulletin boards, conferences, etc. Users are advised that they may encounter material which may be considered offensive or objectionable in nature or content. Users are further advised that TVI is not responsible for the contents of any of these outside networks.
D. If graphic material is being viewed on a screen visible to others and there is a complaint that the material is offensive or considered harassing, user may be asked and will cooperate in resolving the complaint by either turning off the graphic or moving to another less visible location.
E. In appropriate circumstances, if both users are employees, charges may be made under TVI's Sexual Harassment Policy. Complaints should be directed to the affirmative action officer, located in the Human Resources Department. If one or both individuals is a student, complaints should be directed to one of the conflict/sexual harassment advisors located at all TVI campuses. The Employee Handbook and Student Handbook contain details on filing a charge. Copies of these documents are available from a number of offices including the Human Resources Department and Admissions \& Records.
F. The user agrees to follow proper etiquette on outside networks. Documents regarding etiquette are available through system administrators and from specific individual networks.
G. The user agrees to never attempt to transmit, or cause to be transmitted, any message in which the origination is deliberately misleading (except for those outside services which may conceal identities as part of the service).
H. The user agrees that, in the unlikely event that someone does transmit, or cause to be transmitted, a message that is inconsistent with an environment conducive to learning or with a misleading origination, the person who performed the transmission will be solely accountable for the message, not TVI, which is acting solely as the information carrier.
I. The user agrees never to use a system to perform an illegal act. If during an inspection there is evidence that an applicable law may have been violated, all information will be referred to the proper authorities.
J. Any attempt to increase the level of access to which a user is authorized, or deprive other authorized users of resources or access to any TVI system shall be regarded as malicious, and may result in a loss of system privileges.
K. An individual home page must conform to TVI's Web Policy. A copy is available on TVI's home page or can be obtained from Learning Resources. All questions regarding the Web Policy should be referred to webmaster@tvi.cc.nm.us.

## VI. ACCOUNTS

A. An account assigned to an individual must not be used by others without written permission from the system administrator. Each individual is responsible for the proper use of their own account. This includes, but is not limited to, proper password protection and not leaving unattended any device you are logged into.
B. TVI's systems are not secure, nor are they connected to a secure network. While attempts have been made to ensure the privacy of all user accounts, there is no guarantee or representation that any account, electronic mail, or voice mail is private.

## VII. CONFIDENTIALITY

A. It is the general policy of TVI that programs, files, and messages are to remain confidential and are not to be disclosed to third parties without the user's written permission. However, user grants specific permission and TVI reserves the right to access all information stored on its systems. Accounts will not be granted without such permission and will be locked if such permission is withdrawn.
B. In the event of a routine maintenance-related inspection, user be will notified where practical in writing before any inspection is performed. In the case of an emergency, owner will be notified in writing within three business days following inspection.
C. Despite TVI's policy of confidentiality as noted above, TVI does not represent that the accounts, voice mail or electronic mail systems are secure.

## VIII. SYSTEM USAGE

A. Use of electronic communication facilities (such as e-mail or audix) to send fraudulent, harassing, indecent, profane, intimidating, or other unlawful messages is not conducive to the learning environment and is prohibited. Specifically, but without limitation, transmission of messages or images that may constitute intimidating, hostile, or offensive material on the basis of sex, race, color, religion, national origin, or disability are prohibited. Also electronic communication facilities are not to be used for the transmission of commercial or personal advertisements, solicitations, promotions, destructive programs, or any other unauthorized use.

## IX. SYSTEM PERFORMANCE

A. No user shall deliberately attempt to degrade the performance of any system including network resources. Any process that is consuming excessive system resources or is degrading overall system response may be terminated or have its priority altered without notice.

## X. UNAUTHORIZED ACCESS

A. Knowledge of passwords or of loopholes in systems shall not be used to damage resources, obtain extra resources, take resources from another user, gain or attempt to gain unauthorized access to another user's account or file space or otherwise make use of resources either on or off campus for which proper authorization has not been given.

## XI. COPYRIGHT

A. Any information, including text, software, graphics, and photographs, that is copyrighted, shall not be copied into, from, or by, or placed on any TVI facility or system, except in accordance with the license. Software may only be copied in order to make back up copies, if so licensed. The number of copies and distribution of copies may not be Done in such a way that the number of simultaneous users exceeds the total number of licensed copies unless otherwise stipulated in the purchase agreement.
B. A person who makes an unauthorized copy may be liable to the owner for actual damages, profits, court costs, and attorney fees. In addition, in certain cases the user may be criminally prosecuted and subject to a fine and imprisonment.

## XII. COMMERCIAL USE

A. Any commercial use of TVI's systems, unless performed by an approved TVI organization is strictly forbidden. This includes conducting business as an agent or owner of either a business or non-profit organization or any advertising of personal services or products. Personal use of systems such as the telephone, electronic mail, and the Internet are be kept to a minimum. Should such use become disruptive of the system or of TVI's operations, access may be terminated without notice.

## XIII. VIOLATIONS

A. Upon receipt of a complaint or if a user is suspected of violating this policy, all relevant information will be turned over to either the appropriate supervisor or the Student Affairs Office for investigation and possible disciplinary action. Any suspected violation or complaint can be confidentially reported to the appropriate system administrator or to the CIT Helpdesk (224.4357).

## XIV. RELEASE OF INFORMATION

A. TVI recognizes the privacy rights of individuals, as guaranteed by the Family Educational Rights and Privacy Act of 1974 (FERPA) and Governing Board Policy. User agrees to follow TVI's FERPA guidelines and refer any requests for public information from outside TVI to the office of the Vice President for Administration.
B. If there is evidence of a violation of this or any other TVI policy or applicable law, written authorization may be given from a Vice President, Campus Dean, Site Coordinator, or his/ her designee to do an inspection. Following the inspection, user will be notified in writing within three business days why an inspection has taken place. User, when requested, will cooperate fully with investigation.

## XV.TERMINATION

A. Upon notification of termination of employment, all faculty and staff accounts are locked. Information contained in each account will be kept for a period of no less than thirty days. At the end of that period, the information may be retained or deleted at the Institute's discretion. Any faculty or staff member wanting access to information in his/her locked account, must make a request in writing to the appropriate system administrator.
B. Student accounts are kept active until the beginning of the next term. At that time, if the user is no longer a registered student, his/her account is locked. Information contained in the account will be kept until the end of that term then either retained or deleted at the Institute's discretion. Any student wanting access to information in his/her locked account, must make a request in writing to the appropriate system administrator.

## WEB POLICY

## 1. PURPOSE

TVI's presence on the World Wide Web is an increasingly important part of its image. Resources for creating home pages have been provided by the Institute for educational and institutional purposes. Home pages created by departments or individuals (and any pages linked to them) represent the Institute to current and potential students, employers, taxpayers and others. These pages must, therefore, meet high standards.

Web pages created at TVI must conform to applicable sections of the TVI Technology Use Policy, the Student Handbook, the Employee Handbook, the Publications Policy and other relevant policies. Familiarity with these policies is the Web user's responsibility.

## II. DISCLAIMER

A. All department pages must include a link to the main TVI home page which contains the standard TVI disclaimer (see text below). All pages created by individuals must be linked to the TVI disclaimer, either via a link to a department page or a link to the main TVI page, and must have the date of last revision and the electronic mail address of the person responsible for the page.
B. TVI Community College World Wide Web Content Disclaimer. TVI's Web pages are a work in progress. Although we strive for accuracy, we cannot guarantee it. The views expressed on these pages do not necessarily represent the policies of Albuquerque Technical Vocational Institute. The Institute does not assume liability for the accuracy or usefulness of information on these pages. TVI is not responsible for the contents of any off-site pages referenced. All parties providing information and links on the TVI Web warrant that the copying, distribution and use of materials therein will not violate any other party's proprietary rights.
C. TVI Web pages are maintained by various departments. Coordination and development of TVI Web resources have been assigned to the Learning Resources Department, the Computer Information Technology Department and the Public Information Office. For more information, contact webmaster@tvi.cc.nm.us or call 505-224-3299.

## 111. STANDARDS

A. Minimum standards for Web pages created at TVI include (but are not limited to):

1. All pages must be maintained and updated as needed.
2. Text must meet high standards of accuracy and literacy.
3. Where applicable, information must conform to that in theTVI Catalog.
B. Web pages should not contain:

- legally restricted or confidential material;
- material that is obscene or defamatory according to legal standards;
- commercial and personal advertising of services or products (except for approved student organizations).
C. The TVI logo must be used according to standards set by the Public Information Office.
D. The webmaster may establish additional standards consistent with this policy and the Technology Use Policy.


## SUBSTANCE ABUSE

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

## TVI POLICY ON ILLEGAL DRUGS AND ALCOHOL

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

Controlled substances are defined in Schedules I through V of the Controlled Substances Act, 21 U.S.C. 812, and implementing regulations, 21 CFR 1308.11-08.15. Controlled substances include, but are not limited to, marijuana, hashish, cocaine (including crack), amphetamines, heroin, PCP, hallucinogens, anabolic steroids, certain prescription drugs and certain controlled substance analogs. Possession, use, sale or trafficking of controlled substances and glues is prohibited and punishable as a crime.

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

This policy is not intended to supersede or negate any existing policies on substance abuse, student or employee discipline or any additional requirements imposed on TVI or its students, instructors or staff by federal or state law.

The unlawful manufacture, distribution, dispensing, possession or use of controlled substances or alcohol on TVI property or as part of any of its activities by any member of the TVI 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.

Students and employees in the Truck Driving program are subject to random drug testing under federal law.

TVI's response to any violation of this policy may include, as a total or partial alternative to disciplinary action, a requirement that the employee or student participate satisfactorily in an approved substance-abuse treatment or rehabilitation program as a condition of continued employment or registration/enrollment. Any employee engaged in the performance of work under a federal contract or grant is required, as a condition of employment, to notify his/her supervisor within five days if he/she is convicted of a criminal drug statute violation occurring in the workplace. The supervisor shall notify the TVI administration. Failure of the employee to notify the supervisor shall be grounds for disciplinary action.

In recognition of the dangers of substance abuse in the workplace, TVI shall maintain alcohol and drug-free awareness programs to inform members of the campus community about issues and risks of substance abuse. Counseling and treatment referral resources are listed below.

## LEGAL SANCTIONS AND HEALTH RISKS

Penalties for even the most minor violations of the New Mexico Liquor Control Act can include fines of up to $\$ 300$, confiscation of property and imprisonment for up to seven months. More serious violations carry greater penalties, with larger fines and longer imprisonment.

Penalties for illegal drug use can include significant fines and imprisonment. Penalties for illegal sale of drugs are greater and may include property confiscation.

Alternative penalties for illegal drug and alcohol use may also include mandatory community service.

Violation of laws by a foreign national may result in deportation.
Driving or using machinery after drinking or using drugs creates the risk of injury or even death for the user and others. Penalties include criminal charges, up to and including homicide, as well as loss of the driver's license and impoundment of the vehicle.

In drug-related cases a court may permanently suspend eligibility for federal benefits, including student financial aid. Moreover, a criminal record can seriously hurt education and career opportunities.

Excessive alcohol consumption and abuse of illicit drugs can lead to certain types of cancer, pathological changes in the liver, brain, heart and muscle which can lead to disability and death, as well as addiction, birth defects, shortened life span, stomach ulcers, phlebitis, varicose veins and other health problems.

Alcohol and drugs are also factors in homicide, assaults, rapes, suicides and family and date violence.

Alcohol is significantly involved in all types of accidents: motor vehicle, home, industrial and recreational.

Unintended pregnancies and sexually transmitted diseases are often associated with alcohol and other drug abuse. Intravenous (IV) drug use is a high-risk factor for AIDS, which at present is a fatal disease.

Substance abuse negatively impacts on personal, work and academic relationships.

## CAMPUS AND COMMUNITY RESOURCES

Any member of the TVI community who is concerned about a substance-abuse problem-their own or a colleague's-can receive free, confidential assistance at the Counseling Center. A clinical therapist is available to perform a primary assessment on a case-bycase basis.

TVI employees will be referred for assistance through the Employee Assistance Program. Students may receive counseling on
campus or be referred to the most appropriate community agency.
Other community resources include

| AGORA, UNM Crisis Center | $277-3013$ |
| :--- | :--- |
| Al-Anon Information Service | $262-2177$ |
| Alcoholics Anonymous | $266-1900$ |
| All Indian Pueblo Council | $884-3820$ ext. 25 |
| Alcoholism Program | $260-9889$ |
| Narcotics Anonymous | $266-7711$ |
| National Council on Alcoholism \& Drug Dependence |  |
| 256-8300 |  |
| Rape Crisis Center | $2768-0150$ |
| UNM Center for Alcoholism, Substance Abuse |  |
| and Addictions (CASAA) | $272-2920$ |
| UNM Mental Health Center | or 272-2800 |
| Psychiatric Crisis Unit | $247-1121$ |
| Suicide Crisis-Emergency Telephone |  |
| Vet Center Readjustment Counseling | $766-5900$ |

## SEXUAL HARASSMENT

Sexual harassment constitutes an unacceptable and punishable offense at TVI.

Unwelcome sexual advances, requests for sexual favors and other verbal or physical conduct of a sexual nature constitute sexual harassment when:

- submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment, grade or other classroom experience;
- submission to or rejection of such conduct by an individual is used as the basis for employment or academic decisions affecting such individual; or
- such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an intimidating, hostile or offensive working or learning environment.

Sexual harassment is distinguished from voluntary sexual relationships by the introduction of the elements of coercion and threat. Sexual harassment can involve a supervisor or employee and a student, or an instructor and a student, or two students. The three most common factors in sexual harassment are:

- unwelcome or offensive behavior;
- one-sided versus mutual interest; and
- an offender in a position of authority over the victim.

Sexual harassment can be:

- as blatant as the offer of a promotion, a grade or other academic reward in return for sexual favors; or
- as subtle as constant efforts to change a professional or academic relationship into a personal and social one.
Sexual harassment can include (but is not limited to):
- persistent and offensive personal jokes and comments; or
- unwanted physical contact (touching, patting, bumping or pinching); or
- displaying sexually oriented pictures.

As a student, you can do a great deal on your own to prevent or stop sexual harassment. The signals or feedback you give to another person can be very important. You should examine your own behavior and the reactions you get from others. If you believe you are being sexually harassed:

- Say "no" and mean it. Make clear to the offender that the behavior is unacceptable to you.
- Speak directly. Say something like this: "I'd like to keep our relationship strictly academic (or professional)."
- Take action even if you are uncertain about whether sexual harassment is taking place.


## WHERE TO GO FOR HELP

Students with questions or complaints about sexual harassment involving another student should contact the Dean of Students in the Main Campus Student Services Center, telephone 224-4342. Sexual harassment matters concerning a student and a TVI employee should be brought to the Human Resources Department, A Building, Main Campus, 224-4600.

## RULES GOVERNING CLASSROOMS AND LABS

## ACADEMIC INTEGRITY

Students are expected to conduct themselves at all times with the highest academic standards. Cheating, falsifying work or plagiarism will not be tolerated. Students committing these offenses are subject to penalty ranging from a " 0 " on the assignment or test, to an " $F$ " for the course. Students with repeat offenses are subject to disciplinary action up to and including expulsion.

## ACADEMIC DISHONESTY AND MINOR CLASSROOM MISCONDUCT PROCESS

Albuquerque Technical Vocational Institute (TVI) students are required to conform to the Student Code of Conduct and Academic Integrity Standards. However, situations that involve academic dishonesty or minor classroom misconduct may occur. Several examples of academic dishonesty and minor classroom misconduct may include but are not limited to the following:

## Academic Dishonesty

- Dishonesty (e.g., cheating, plagiarism*) on quizzes, tests, and/or assignments
- Claiming ownership for work not done or work done by others
- Knowingly giving false information


## Minor Classroom Misconduct

[minor misconduct that is troublesome, but does not violate the Student Code of Conduct]

- Student-to-student disagreements
- Interference with the academic work of other students

1. If an incident involving academic dishonesty or minor classroom misconduct occurs, the faculty member will meet with the student(s) and discuss the alleged incident. If the situation is not resolved, the faculty member may impose a sanction for the misconduct and will file a Student Incident Report (SIR) with the department dean or associate dean. If the student disagrees with the sanction, the student may appeal the decision by following steps $2-6$ as appropriate below.
2. The student files a written appeal with a copy of the Student Incident Report to the department dean or associate dean within three (3) working days of meeting with the TVI faculty member.
3. The department conducts an appeal process according to department procedures. The department determines a resolution within ten (10) working days and notifies the student and the faculty member.
4. If the student is not satisfied with the department resolution, the student submits a written appeal to the Dean of Students within three (3) working days of receiving the department decision.
5. The Dean of Students reviews and investigates the appeal and recommends a decision to the Vice President for Instruction.
6. The Vice President for Instruction makes the final decision and notifies the student, the department, the faculty member, and the Dean of Students.
*Plagiarism includes, but is not limited to the use of paraphrase or indirect quotation of the published or unpublished work of another person without full and clear acknowledgement. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

## CHILDREN ON CAMPUS

Children (or other non-students) are not allowed to accompany adults to class. All children who are under age 15, and are on TVI's campus, must be accompanied by an adult at all times.

## ELECTRONIC DEVICES

All cellular telephones, pagers and beepers must be turned off or switched to silent or vibration mode. Electronic entertainment devises are to be turned off and headphones removed.

## DRESS

Students are expected to dress appropriately on campus at all times.

## GLOSSARY

abbreviated schedule: classes begin at 10:30 a.m. Classes before that time are canceled. Information is givne on the telephone hotline, 224-4SNO, and on local media
academic courses: those which carry transfer credit toward a bachelor's degree as well as meeting requirements for an associate degree (see occupational courses)
accreditation: formal recognition of an educational institution that maintains standards qualifying its graduates for further study or for professional practice. Albuquerque TVI is accredited to grant certificates and associate degrees by the North Central Association of Colleges and Schools; individual programs are accredited or approved by professional organizations.
adding courses: Students may add (register for) TVI courses through the fifth day of a full-term session and the third day of a short session. If the course has a corequisite it must be added as well.
admission: the process of applying and being accepted by TVI (as opposed to registering for a particular course).
adult education: free courses to prepare for the GED, or to improve the skills of English as a second language speakers, offered in the Department of Adult and Developmental Education (DADE)
advisor: a TVI staff member who provides program information and checklists, handles credit transfer issues, assists students with setting and meeting academic goals and provides referrals to other departments.
articulation agreement: a list of community college courses which are equivalent to corresponding courses at four-year colleges and universities. In other words, a transfer school, such as UNM or NMSU, has agreed, in writing, that these courses will fulfill many or all of the lower-division requirements for a bachelor's degree.
associate degree: a degree awarded by a community college upon satisfactory completion of an organized program. TVI offers the associate of arts, associate of science and associate of applied science degrees. They require 64 to 84 credit hours and include a minimum of 15 credit hours of general education courses as well as those in the major field of study. Some credit hours are transferable toward a bachelor's degree.
audit: TVI students may register for occupational or Arts \& Sciences courses for audit-which means no grade or credit is recorded on the transcript-if they have met the prerequisite(s). Students are expected to attend all class sessions but are not responsible for completing assignments. Audit courses do not count for enrollment verification and cannot be used to meet prerequisite or corequisite requirements.
challenge exams: used to establish credit for occupational and Arts \& Sciences courses.
community college: a postsecondary institution like TVI which offers adult education, college preparation and courses/programs (certificates and degrees) in technical and occupational fields of study as well as for transfer to four-year schools.
concurrent enrollment: enrollment of secondary level students in academic and/or vocational courses at postsecondary institutions for which they are eligible to receive credit at the secondary and postsecondary levels.
corequisite: a course which is either recommended or required to be taken in combination with another course. Often a lab is the corequisite for a lecture: CHEM 121/121L, for example. A student who drops one of a pair of corequisite courses must drop the other as well.
counselor: a TVI staff member who provides academic, career and personal counseling as well as referrals.
course fee: a charge for materials, equipment and supplies for a course, listed in the Schedule of Classes and the Catalog.
course load: the number of courses taken in a term, usually measured in credit hours. At TVI, 12 hours is considered a full load. Students wishing to take more than 18 hours must meet certain conditions.
credit hour: a unit of measurement for courses. At TVI, 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 at least 1,500 minutes. For transfer purposes, one TVI credit hour generally equals one semester credit hour at other institutions.
credit/no credit: CR/NC, a grade option in some TVI courses, replacing the traditional letter grade.

CRN: course reference number, assigned to each course in the Schedule of Classes and used in registering.
developmental education: free courses to prepare students to enter liberal arts or occupational majors, offered in the Department of Adult and Developmental Education (DADE).
distance learning: course sections offered via the Internet, videotape, correspondence or television or in an electronic classroom. These sections cover the same material and carry the same credit as their inclass counterparts. Separate fees are charged. For details, see the Schedule of Classes.
dropping courses: removing your name from a course roll if you no longer wish to attend and will not receive a grade. Deadlines for dropping courses are printed in the Schedule of Classes. If you drop a course with a corequisite you must also drop the corequisite. Dropping courses may affect your financial aid.
elective: a course not required for graduation or for a major.
full-time status: 12 credit hours constitute a full course load.
general education courses: courses outside the major field that are required for an associate degree. Examples are ENG 101 and MATH 121; at TVI, general education courses are offered by the Arts \& Sciences Department.
grade point average (GPA): computed by multiplying the number of credit hours of a course by the points assigned to the letter grade, then dividing by the total number of hours.
Point values are: $\mathrm{A}=4, \mathrm{~B}=3, \mathrm{C}=2, \mathrm{D}=1, \mathrm{~F}=0$.
major: a group or series of courses designed to provide intensive education or training in a specialized area. A major prepares students for immediate employment and/or further education; a student's major is the certificate or degree program in which he or she is enrolled.
non-degree student: one who has not yet chosen a major or who does not wish to earn a certificate or degree. Adult \& Developmental Education students are classified as non-degree. Credits earned in non-degree status may be transferred to a certificate or degree program. Non-degree students may not be eligible for financial aid or veterans' benefits.
occupational certificate: a document issued by the college that acknowledges that all courses within a TVI Board approved program have been successfully completed.
occupational courses: those designed to prepare students for entrylevel jobs. At TVI occupational courses (also called vocational courses) are offered in the Business Occupations, Health Occupations, Technologies and Trades \& Service Occupations departments.

PIN: personal identification number used as an access code in STARS. Your PIN is pre-set to your birth month/day/year (June 12, 1970 , is 061270 , for example). To protect your privacy, you should change your PIN as soon as you begin using STARS. If you forget your PIN, come to the Records Office with a picture ID which includes your Social Security number.
prerequisite: a requirement which must be successfully completed before a student may enroll in a course. Often the prerequisite is a lower-level course in the same subject which must be completed with a passing grade.
program director: an instructor who provides in-depth information about a certificate or degree program

R: Thursday (really!) in the TVI Schedule of Classes, where T R means a class meets Tuesday and Thursday.
recommended prerequisite: a course or other prerequisite which is strongly suggested for successful completion of a course but is not required (See prerequisite.)
registration: the process of signing up for courses, including paying tuition and fees.
registration fee: a charge paid before registering for classes (\$22.25 per term in 2000-01).
repeating courses: A course may be repeated up to three times, with each enrollment appearing on
the transcript.
S: means a class meets on Saturday (generally used in the TVI Schedule of Classes)

Schedule of Classes: a printed list of classes to be offered in the upcoming term, including CRN, day/time and location, with information about admission, payments and registration.
snow day: Under extreme weather conditions, TVI may close or operate under an abbreviated schedule, with classes beginning at 10:30 a.m. Information is announced on a telephone hotline, 2244 SNO , and on radio stations.

STARS: TVI's Student Access Telephone Registration System. It allows students to register for classes, add and drop classes and find out their grades by using a touch-tone telephone. Instructions for using STARS are published in the Schedule of Classes.

SU: means a class meets Saturday and Sunday (generally used in the TVI Schedule of Classes)
term: the length of a specific course and, therefore, a portion of the academic year. TVI has three terms a year: fall (beginning in September), spring (January) and summer (May).
topics course: a course on a special topic offered irregularly and indicated with $\mathrm{a}=$ footnote in the Schedule of Classes.
traditional grade: letter grade ( $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$ or F ) used in calculating the grade point average and recommended for courses in the major and for courses to be transferred to another institution. For details on grade options, see page 18 .
transcript: an official copy of a student's academic record at a college, showing courses attempted and completed, grade and the grade point average. TVI transcripts are available from the Records Office.
transfer credit: credits for courses taken at another institution and counted toward a TVI certificate or degree or taken at TVI and applied toward a degree at another institution.
tuition: a charge for TVI's Arts \& Sciences courses: in 2000-01 New Mexico residents pay $\$ 33.00$ per credit hour. Non-residents also pay tuition: $\$ 91.40$ per credit hour for Arts \& Sciences and occupational courses.

U: means a class meets on Sunday (generally used in the TVI Schedule of Classes)
verification of completion: a document issued by an instructional department, upon successful completion of a group of occupational courses, to confirm that specific skills have been attained.
withdrawal: dropping all courses and ceasing to be a TVI student. wpm: words per minute (keyboarding).

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[^0]:    ${ }^{1}$ Counted in Not Seeking Employment or Available for Work
    ${ }^{2}$ Percent of available graduates employed in training-related job
    ${ }^{3}$ Based on 40-hour work week in training-related job

[^1]:    *Admission is the process of applying and being accepted to TVI. Registration (see page 14) is the process of selecting courses, receiving a schedule of classes and completing enrollment at TVI. The following requirements and procedures do not apply to students taking Adult Education classes.
    **The high school must be recognized by the state department of education in the institution's home state or by a regional accrediting agency approved by the New Mexico State Board of Education.

[^2]:    * Note: These regulations do not apply to students taking Adult Education classes.

[^3]:    National Automotive Technicians Education Foundation (NATEF)

    American Culinary Federation (ACF)
    Professional Truck Driver Institute of America (PTDIA)

[^4]:    Term 1: CARP 101, 102, 102L, 103, 103L, 104, 104L, MATH 119 or higher
    Term 2: CARP 111, 112, 112L, 113, 113L, 114, 114L, ENG 101, BA 150 or CP 176 or CSCI 101

[^5]:    1) Suggested occupational component for preparation for the New Mexico Court Reporting examination Term 1: BA 121, 150, CR 103L
    Term 2: BA 131, CR 104L, 105, 132
    Term 3: CR 210L, 240
    Term 4: CR 220L, 250L
    Term 5: CR 230L, 260, 298
    2) Court Reporting Associate of Applied Science Degree

    Term 1: BA 121, 150, CR 103L, 123

[^6]:    BIO 121/121L - Principles of Biology I
    (Prerequisite: RDG 100; recommended: MATH 100B and CHEM 111)
    Presents basic principles of biology for students wishing to pursue majors in the sciences. Emphasizes cellular level processes including biological chemistry, cell metabolism, photosynthesis, control and transmission of hereditary materials, and nucleic acid structure and function, as well as critical thinking skills and scientific methodology. Required enrollment in 3-hour lecture and 3-hour lab. Course fee: $\$ 20$.

[^7]:[^8]:    * RT 121 C, RT 122C, RT 221 C, RT 222C, and RT 223 C:

    Lectures on the pathophysiology of the cardiopulmonary system given by the program's medical director and physicians from the UNM School of Medicine or other physicians in the community. Students participate in problem-based learning sessions with physicians to discuss clinical cases. Requirements include case studies, article reviews and pathology reports, oral reports and interactions with patients and physicians in clinical settings and during physician rounds.

