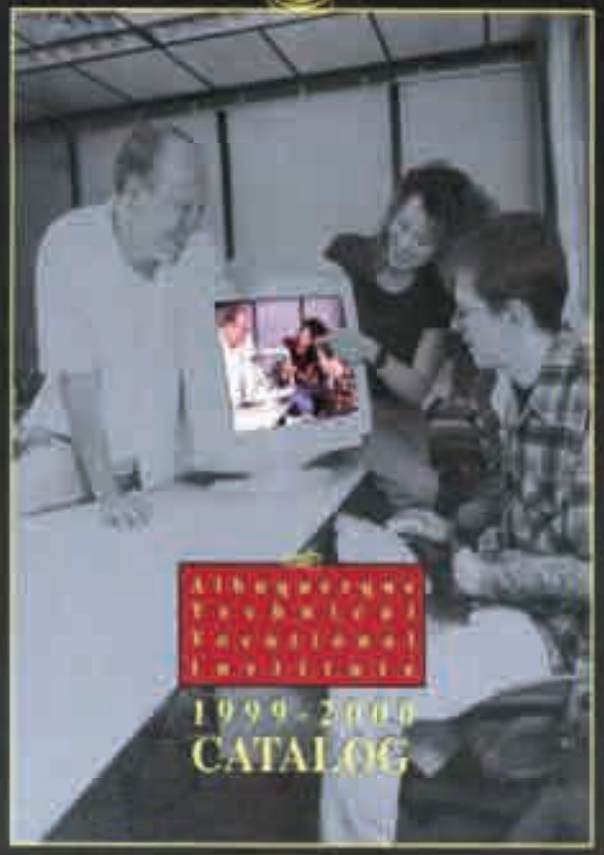

Albuquerque Technical Vocational Institute

1999-2000 Catalog

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1999-2000 CATALOG

ALBUQUERQUE TECHNICAL VOCATIONAL INSTITUTE

VOLUME 34 **JULY 1999**

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

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

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

South Valley Campus
5816 Isleta SW
Albuquerque, New Mexico 87105

Web Site
http://www.tvi.cc.nm.us

Switchboard
505-224-3000

TVI
COMMUNITY
COLLEGE

CONTENTS

ABOUT THIS CATALOG

The Catalog is the 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.ocean.tvi.cc.nm.us/catalog/9900.

INTRODUCING TVI

Now in its third 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 1990-2000 TVI's programs include:

- certificates: in 45 business, health, technologies and trades occupations, as well as short-term occupational courses;
- associate degrees: in 35 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, 272-7970), workshops and support for learners over 50 (the Emeritus Academy, 224-5501) 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 Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools. In addition, specific programs have accreditation or approval by appropriate agencies.

TVI Governing Board

Ruth L. Connery, Chair
Blair L. Kaufman, Vice Chair
Cammie Lynn Toulouse, Secretary
Richard Barr
Pauline J. Garcia
Penelope S. Holbrook
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 and 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.

HISTORY

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, in recent years, liberal arts and college transfer. Today's 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 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. Degree-granting 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 more than 20,000, 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. Plans are being made for a permanent West Side presence.

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 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 September), spring (begins in January) and summer (begins in May). Short sessions also are held in some programs. Most programs admit beginning students each term.

GENERAL EDUCATION

The Albuquerque Technical Vocational Institute, a community college, provides basic, occupational and general education for a population which includes a broad spectrum of ages, cultural backgrounds and intellectual abilities. The Institute is committed to general education and related courses as an integral part of certificate and associate degree programs. The general education courses 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 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.

ASSESSMENT

Albuquerque TVI, in compliance with the North Central Association's Commission on Institutions of Higher Education, regularly conducts assessment of its instruction. Assessment of student academic achievement is an effort throughout each of the instructional departments wherein the departments evaluate their success in fulfilling both course and program objectives. Towards this end, during a term 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 to continue to do things well or to improve instruction where weaknesses are found.

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 shown 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. Effective in the spring 2000 term, fees are charged for Distance Learning courses (see page 20). More information about Distance Learning is available at 224-33 16 and on the home page at http://ocean.tvi.cc.nm.us/distancelearn/.

EQUAL OPPORTUNITY POLICY

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

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

Any person who wants to file a complaint based on these laws should contact the equal opportunity officer in the Human Resources Office, 224-4600.

In accordance with the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973, Albuquerque TVI provides notice that no qualified individual with a disability shall, on the basis of the disability, be excluded from participation in, be denied the benefit of, or otherwise be subjected to discrimination related to any of the institution's educational programs or activities.

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

1997-98 GRADUATE JOB PLACEMENT*

	Total Graduates	Continuing School	Available for Work	Percent Employed[1]	Working in New Mexico	Average Salary[2]
Business Occupations						
Accounting, certificate	2	-	-	-	-	-
Accounting, degree	34	4	19	89%	17	$20,664
Administrative Assistant, certificate	5	2	-	-	-	
Administrative Assistant, degree	33	3	26	96%	25	$17,904
Bookkeeping, certificate	4	1	3	33%	1	-
Business Administration, certificate	14	3	6	100%	6	-
Business Administration, degree	39	10	15	80%	12	$20,844
Court Reporting, degree	2	-	2	100%	2	-
Food Service Management, certificate	8	2	4	100%	4	$18,456
Judicial Studies, certificate	2	1	1	100%	1	-
Legal Assistant Studies, degree	38	2	23	87%	19	$19,863
Microcomputer Mgmt, certificate	1	-	-	-	-	-
Microcomputer Mgmt, degree	13	4	4	100%	4	$19,944
Pre-Management, degree	25	18	2	100%	2	$19,752
Sales and Cashiering, certificate	15	3	6	100%	6	$11,952
Health Occupations						
Child, Youth, Family Develop, degree	10	3	5	100%	5	$16,452
Clinical Lab Assistant, certificate	8	2	6	100%	6	$16,764
Healthcare Technician, certificate	6	2	3	100%	3	$14,076
Health Unit Clerk, certificate	40	7	21	95%	20	$16,020
Medical Lab Technician, degree	11	1	8	100%	8	$21,624
Nursing, degree	85	4	64	100%	64	$29,196
Nursing Assistant, certificate	40	20	10	100%	10	$15,420
Pharmacy Technician, certificate	16	1	12	92%	11	$17,328
Phlebotomy, certificate	14	7	5	100%	5	$16,716
Practical Nurse, certificate	24	3	15	87%	13	$21,420
Respiratory Therapist, degree	16	1	15	100%	15	$23,934
Surgical Technician, certificate	5	1	2	100%	2	$24,960

*Complete statistics are published in the Student Handbook and are available from Student Job Placement Services.

[1] Excludes those not located, seeking training-related job, serving in military, not seeking employment, not available for work.

[2] Based on 40-hour work week in training-related job.

	Total Graduates	Continuing School	Available for Work[1]	Percent Employed[1]	Working in New Mexico	Average Salary[2]
Technologies						
Architectural/Eng Drafting Tech, certificate	4	1	3	100%	3	$19,416
Architectural/Eng Drafting Tech, degree	22	1	18	100%	18	$21,168
Business Computer Prog, certificate	4	1	3	67%	2	-
Business Computer Prog, degree	14	3	5	80%	4	$20,712
Computing Technology, certificate	1	-	1	100%	1	-
Computing Technology, degree	2	1	1	100%	1	-
Design Drafting Engineering Tech, degree	8	-	6	100%	6	$26,520
Electronics Engineering Tech, degree	10	1	6	100%	6	$21,732
Electronics Technology, certificate	6	1	3	100%	3	-
Electronics Technology, degree	23	2	15	93%	14	$25,068
Manufacturing Technology, certificate	9	6	4	100%	4	-
Manufacturing Technology, degree	65	5	55	91%	38	$28,332
Pre-Engineering, degree	1	-	1	100%	1	-
Trades & Service Occupations						
Air Cond/Heating/Refrig, certificate	21	9	13	100%	13	$24,972
Automotive Technology, certificate	18	3	11	100%	11	$17,472
Baking, certificate	10	2	5	100%	5	$14,040
Carpentry, certificate	12	5	4	100%	4	$21,732
Commercial Printing, certificate	2	-	1	100%	1	-
Construction Technology, degree	11	2	4	100%	4	$23,441
Criminal Justice, degree	17	-	5	100%	5	$16,668
Culinary Arts, degree	10	4	4	100%	4	$21,228
Diesel Equipment Tech, certificate	9	1	5	100%	5	$17,892
Electrical Trades, certificate	7	-	6	100%	6	$20,592
Environmental Technology, degree	18	5	9	100%	9	$23,532
Fire Science, degree	2	-	-	-	-	-
Fitness Technician, certificate	12	-	8	100%	8	$15,120
Machine Tool Technology, certificate	11	-	7	100%	7	$24,036
Mechanical Technology, degree	6	1	4	100%	4	$28,848
Metals Technology, degree	4	1	3	100%	2	$21,204
Plumbing, certificate	19	8	8	100%	8	$17,676
Quantity Food Preparation, certificate	15	4	8	100%	8	$13,788
Transportation Technology, degree	1	1	-	-	-	-
Truck Driving, certificate	19	2	16	100%	13	varies
Welding, certificate	8	-	3	100%	3	$20,280
Totals	**916**		**522**	**96%**		

FINANCIAL AID

http://ocean.tvi.cc.nm.us/fao **224-3090**

Our Mission: To improve access to higher education by providing comprehensive financial assistance and information to all students and the TVI community. 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 pursuing 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 Guidebook or the Federal Guidebook as well as our web site 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.
- Enroll at least half time (as defined by federal regulation); this applies to most Title IV programs.
- Enroll in an eligible major.
- Enroll in eligible courses. Some ineligible courses include GED, Health Unit Clerk and apprenticeship classes as well as those courses that apply to ineligible majors only. Financial aid does not pay for audited classes.
- Have a high school diploma, GED or passing scores from an exam indicating you have the ability to benefit from a program of study.
- Maintain satisfactory academic progress defined by federal regulations.
- 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.

AWARDS

All financial aid awards are based on information provided by the student, availability of funds and 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 dates of disbursement of financial aid checks are Fridays except on the initial dates of disbursement which are posted and included with the student's award letter.

Grants

The federal Pell Grant provides funds to undergraduate students without bachelor's degrees. Awards range between $400 and $3,125 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 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). 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 requires 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 aca-

demic progress while they are employed.

TVI also offers a Student Employment program. Students 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. For more information, students should contact the Financial Aid Office or visit our web site, http://ocean.tvi.cc.nm.us/fao/. 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 at Tres Manos Child Development Center. Applications are available through the Financial Aid Office.

Check Release

Main Campus students may pick up checks between 9:00 PM and 5:00 PM at the Cashier's Office in the Student Services Center. Montoya Campus students may pick up checks between 9:00 AM and 5:00 PM 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 15 days of the release date, it will be canceled. Eligible students receive award letters through the mail, notifying them of scheduled check release dates. Noncompliance 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.

Students who apply for a student loan after the regularly scheduled release date will receive their checks in about six weeks. All loan recipients must have the 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. To claim any amount due after charges have been paid, students must present a valid picture ID to the Cashier's Office.

FINANCIAL AID SATISFACTORY ACADEMIC PROGRESS

Federal regulations require that financial aid recipients meet certain academic standards to be eligible for federal financial aid. To ensure that 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 as either Pre-Engineering or Liberal Arts majors.

1. Qualitative Progress: Students must maintain a cumulative grade point average of at least 2.0 (a C average). Grade point values are: A = 4.0, B = 3.0, C = 2.0, D = 1.0, F = 0. Grades of I, CR, PR, NC, 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 liberal arts or pre-engineering degree are included in the student's maximum time frame calculation.

Financial Aid Probation

Recipients are placed on probation for one term of financial aid after the first term they fail to meet the qualitative or completion rate components of satisfactory academic progress. Students will receive financial aid during the probationary term. Students are not eligible to receive a deferment for the term following their probationary term. If a student has never received federal financial aid and is not making satisfactory academic progress at the time eligibility has been established, the student will be placed on probation during the student's first term of eligibility. 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 suspended from receiving financial aid are not eligible for a financial aid deferment. Students on financial aid

suspension will not receive any form of federal or state financial aid (grants, loans, work study). Financial aid eligibility is reinstated when all standards of satisfactory progress are met.

The Appeal Process

Students suspended from financial aid may appeal the suspension if there are mitigating circumstances affecting their progress. Students who would like to appeal the suspension 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.

DEFERMENT AUTHORIZATION

Students who sign the Financial Aid Deferment Authorization Form are authorizing TVI to credit their account for tuition, fees, bookstore costs, parking fees and any other charges they may incur while attending TVI. All charges are automatically deducted from the student's 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 term in which the expenses were incurred may be dropped from their classes and 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. Furthermore, students who do not authorize a deferment and do not pay their charges (tuition, fees, etc.) by the scheduled deadline may be dropped from their classes. Deferment authorizations may be rescinded at any time upon written request by the student during enrollment at TVI. Students placed on financial aid probation may receive a deferment for that probationary term; however, they will not receive a deferment for the next term they attend until grades are posted for the probationary term and satisfactory academic progress has been reestablished. Students who are suspended are not eligible for a financial aid deferment.

The Deferment Authorization Form is available on the TVI home page at http://ocean.tvi.cc.nm.us/fao/.

REFUNDS AND REPAYMENTS

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

Pro-Rata Refunds: Pro-rata refunds apply to students who received federal student aid, attended TVI for the first time and withdrew before they attended 60 percent of the enrollment period or term. The pro-rata refund is not less than that part of a student's tuition, fees, room and board and other charges equal to that portion of the student's enrollment period for which the student has been charged that remains on the student's last recorded day of attendance less any unpaid charges.

Other Refunds: All remaining refunds apply to federal aid recipients who do not meet the pro-rata refund definition. The federal refund policy applies to all students who withdraw, not just to students who provide written notice of withdrawal. The policy mandates that the percentage of institutional charges must be refunded. Students should consult the Financial Aid Guide for details.

Repayment of Cash Disbursements: If a student receives a federal cash disbursement for living expenses and withdraws from school, he or she must repay a portion of the amount received if the cash received is greater than the cost of living expenses at the time of withdrawal. See the Financial Aid Guide for details.

STUDENT SERVICES

http://ocean.tvi.cc.nm.us/studentservice/ **224-4747**

Students -- prospective, new, continuing and former -- 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 by calling 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.

Admissions and Advisement

Applications for admission to the Institute are accepted at all campuses. Professional advisors and staff in the Advisement Centers (phone 224-3147 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

TVI's Counseling Centers at Main (224-4321) and Montoya (224-5646) campuses are 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.

Testing Services

TVI's Testing 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 Testing 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 Testing 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 Testing 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, so-

cial 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 both a pre-test to determine readiness for the exam and free GED preparatory classes (see page 28).

Student Job Placement

Student Job Placement (224-3060 at Main Campus, 224-5507 at Montoya) provides a variety of job search services, including job listings, a job hotline (224-3061), resume assistance, mock interviews, on-campus interviews with employers, job market information, job fairs and workshops, videos and specialized assistance. Services vary according to eligibility. Eligible students may register for on-line services at http://sjpweb.tvi.cc.nm.us.

An abbreviated table showing graduate job placement is on page 6-7; for the most recent information contact the SJPS office.

For information concerning student internships and cooperative education courses, students may contact the Business Occupations (224-3811), Technologies (224-3340) and Trades & Service Occupations (224-3711) departments.

Health Care

The Student Health Center, located in the Student Services Center on Main Campus (224-3080), is open weekdays from 8 AM to 5 PM. 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 9.)

Parking: Parking is currently free at most campus lots, although spaces are limited. At Main Campus, students and employees may purchase parking permits for the gated lot east of the Student Services Center.

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 shuttle bus stops at the Main Campus.

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 Saturdays. 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-to-one 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 served 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 (224-43 12). 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 small-group 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.

1999-2000 ACADEMIC CALENDAR

FALL TERM 1999

First day of instruction ..... August 30
Last day to register; last day to change from audit to other grading option
- Full term classes ..... September 3
- Short session classes ..... third day of the session

Midterm/graduation applications due ..... October 19
Last day to change to audit; last day to withdraw
- Full term classes ..... November 19
- Short session classes ..... See Schedule of Classes

Thanksgiving holiday (no classes; offices closed) ..... November 25-27
Last day of the term (may vary; consult department) ..... December 15
Fall grades available on STARS ..... December 22

SPRING TERM 2000 (TENTATIVE)

First day of instruction ..... January 10
Last day to register; last day to change from audit to other grading option
- Full term classes ..... January 14
- Short session classes ..... third day of the session

Martin Luther King Day (no classes; offices closed) ..... January 17
Presidents' Day (no classes; offices open) ..... February 21
Midterm/graduation applications due ..... February 29
Last day to change to audit; last day to withdraw
- Full term classes ..... March 31
- Short session classes ..... See Schedule of Classes

Last day of the term (may vary; consult department) ..... April 26
Graduation ..... April 27
Spring grades available on STARS ..... May 3

SUMMER TERM 2000 (TENTATIVE)

First day of class ..... May 15
Last day to register; last day to change from audit to other grading option
- Full term classes ..... May 19
- Short session classes ..... third day of the session

Memorial Day holiday (no classes; offices closed) ..... May 29
Midterm/graduation applications due ..... June 23
Independence Day holiday (no classes; offices closed) ..... July 4
Last day to change to audit; last day to withdraw
- Full term classes ..... July 21
- Short session classes ..... See Schedule of Classes

Last day of the term (may vary; consult department) ..... August 4
Summer grades available on STARS ..... August 11

ADMISSION*

The Albuquerque Technical Vocational Institute has an open admission policy which 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 sex, race, color, national origin, religion, age or disability. It is the policy of the Institute not to discriminate on the basis of sexual orientation, marital status or ancestry.

TVI's academic year is divided into three terms which begin in September, 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.

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[6] or
- have a General Educational Development (GED) diploma; or
- qualify under concurrent enrollment (see below).

Note: Some programs have additional admission requirements (see program descriptions).

[6] In order to meet this criterion, the school must be a regular high school or a home school. The regular high school must be approved 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; the home school must be accredited by the Distance Education and Training Council Accrediting Commission (formerly known as the National Home Study Council).

ADMISSION STATUS AND PROGRAM OPTIONS

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

Certificate/Degree Status

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

Students who have not earned a high school diploma or GED may be required, because of federal "ability to benefit" standards, to have minimum scores on TVI's Accuplacer placement test in order to enter a program of study.

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

TVI offers the following types of certificate and degree programs (see page 38 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.
- 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.

*Admission is the process of applying and being accepted to TVI. Registration (see page 18) 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.

- Verification of Completion: A document issued by an instructional department to confirm skills developed upon successful completion of certain occupational courses.

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

TVI has concurrent enrollment agreements with the Albuquerque Public Schools, Bernalillo High School, Moriarty High School, Rio Rancho 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) up to 30 days before the term begins; after that, they must be hand-delivered to the Admissions Office.

   Returning Student: Any student who has previously attended TVI in certificate/degree or non-degree 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 non-degree 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 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, or on ACT or SAT tests (taken at any TVI Testing Center), by transfer of credit from another institution or by successful completion of a specific course. (Also see page 18).

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 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 which is at least ten 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. Specific criteria for acceptance of occupational credit have been established by each instructional department. 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

Occupational Challenge Exams: Challenge examinations are offered for some occupational 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 ten years, he or she enrolled in the course at any other postsecondary institution or enrolled at TVI after the 15th day of the term (including Saturdays).
- ☐ A grade of TR will be recorded on the student's TVI transcript for those courses successfully challenged. TR credit will be recorded upon the student's completion of TVI credit coursework in the same or subsequent term. TR grades are not computed in the student's GPA.
- ☐ Courses successfully challenged may count toward graduation, but not the residency requirement.
- ☐ Challenge exam credit may not be accepted by other postesecondary institutions.

AP/CLEP Exams: Students may earn up to 30 credit hours through Advanced Placement (AP) and College Level Examination Program (CLEP) tests. Details are available in the Student Handbook and in advisement offices.

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

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 fifth day of the term for full-term 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. 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 (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 20). 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. ACT, SAT and ASSET scores may not be more than five years old. Accuplacer scores may not be more than two 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 the term of graduation.

Adding Courses: Most courses may be added or sections changed through the fifth day of full-term and 12-week summer term 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 summer term. 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 up to three times, regardless of grade option. A student wishing to repeat a course more than three 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 10th week and short-session courses through the Friday following 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 12-week summer courses dropped after the 15th day and for all other courses dropped as of the first day of the session.

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

Grade Options: Students must select a grade option when registering for class (see page 22).

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

Stepbacks: Students may, with department approval, 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 back into a self-paced, developmental math course through the tenth week of a full term and the eighth week of the 12-week summer 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

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

A student is classified as a resident or non-resident for tuition purposes based on information supplied at the time of admission or readmission. A 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 resi-

dency 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 65 years of age and older who move to New Mexico for retirement, as well as their spouses and dependents, or those who provide evidence of formal retirement shall not be required to complete the 12-month durational requirement. They must, however, satisfy the other requirements of residency.

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

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

TUITION AND FEES

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. Authorized agencies that have agreed to pay a student's training expenses are billed by the Institute.

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 part-time students or non-resident students enrolling in the summer term.

Tuition rates for 1999-2000 (subject to change without notice) are:

Arts & Sciences courses

New Mexico residents: 1 to 11 credit hours and more than 18 credit hours: $31.70 per credit hour; 12 to 18 credit hours: $380.40

Non-residents: 1 to 11 credit hours and more than 18 credit hours: $87.90 per credit hour; 12 to 18 credit hours: $1,054.80

Occupational courses

New Mexico residents: none

Non-residents: 1 to 11 credit hours: $87.90 per credit hour; 12 to 18 credit hours: $1,054.80

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 65 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 Acult 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:

Administrative Service Fee: This $10 fee is not paid by students; 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. Effective spring 2000.

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

GED Exam fee: $10

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

Occupational Challenge Exam Fee: $15 (may vary)

Registration Fee: There is a $22.25 registration processing fee required each term (of that, $2 is collected on behalf of the Student Association of TVI.).

Transcript Fee: Students may request up to five TVI transcripts, free of charge, per academic year. Additional copies will be issued for a fee of $1 per copy, payable in advance. A fee of $3 per page, payable in advance, will be charged for TVI transcripts faxed outside of the Albuquerque area but 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.

ACADEMIC POLICIES

DEFINITION OF TERMS

Note: These regulations do not apply to students taking Adult Education classes. Additional information about academic regulations is contained in the Student Handbook.

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.

Students who miss two classes during the first week of the class may be dropped by the instructor. A student with excessive absences may be dropped from a course. 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 non-attendance 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:

- freshman: A student who has completed fewer than 30 credits at TVI
- sophomore: A student who has completed 30 or more credits at TVI
- part-time: A student carrying fewer than 12 credit hours per term
- 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 19 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, non-traditional or examination; 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: A=4, B=3, C=2, D=1, F=0. For example, a four-credit-hour course with a grade of A carries 16 quality points. Then the total number of quality points earned is divided by the total number of eligible credit hours attempted (GPA hours).

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

Grade Options

Traditional Grade: Students may choose to enroll in Arts & Sciences and occupational courses for a traditional (letter) grade (A, B, C, D, F). Traditional grades are used in calculating GPAs. Students interested in transferring their 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 have no responsibilities for completing assignments.

Courses taken for audit will appear on the student's transcript as AU with no credits recorded and no grades assigned. Courses taken for audit are not included in the student's total course load for enrollment verification 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 CR will not be allowed in some Business Occupations majors (programs). Some schools, scholarship committees and honorary societies do not accept this grading system and/or convert grades of CR to C and NC to F. Students planning to transfer to another institution should talk to an advisor at that institution about possible consequences of CR/NC grades.

Open-Entry, Open-Exit: Students may register for courses which 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 199 1.

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. All courses with grades of D or F taken between fall 1988 and the student's absence will be affected by Academic Renewal.
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 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 2000, graduation for students who complete programs in the summer and fall 1999 and spring 2000 terms is April 27.

General Requirements: To be eligible to receive a degree or certificate, students must meet the following requirements as well as those listed under the specific major (program) they wish to pursue:

- an overall cumulative GPA of 2.0 or better;
- completion of the last term of course work in residence at TVI;
- enrollment in the major in which they plan to graduate (see page 18 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. 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. Courses graded AU 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; failure to do so may cause incremental certificates to be denied.

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 16-17). 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 Center. 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 15th 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 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

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

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). Students may request up to five official TVI transcripts, free of charge, per academic year. Additional transcripts cost $1 each or $3 for faxes. No transcript is issued until all institutional obligations are paid.

Transcripts from other institutions received by TVI are not copied 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 tine 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. An abbreviated graduate job placement table is on page 6-7; the full report is in the Student Handbook. Campus security policies and crime statistics, as well as the Code of Conduct and the substance abuse and sexual harassment policies, are published annually in the Student Handbook.

ADULT & DEVELOPMENTAL EDUCATION

http://ocean.tvi.cc.nm.us/ljohnson/ **224-3939**

The Department of Adult & Developmental Education (DADE) is committed to using education as a tool to help students increase options, thus improving the quality of their lives. To this end, DADE offers a broad range of courses in basic skills.

There are many reasons why students are not ready for college-level studies. Some did not enroll in the right courses in high school; others once had the skills but now need to brush up; and some students 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 non-credit classes in Adult Education and credit courses in Developmental Education. Credit courses in reading, writing, 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 (see page 13).

The vision of the Department of Adult & Developmental Education is 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.

ADULT EDUCATION

Non-credit Skills Classes

Our goal in Adult Education at TVI is to help students identify and achieve basic educational goals. To do that, we offer free non-credit classes in basic reading, math, writing, English as a second language and job/life skills. These classes may help students prepare for higher education, job advancement or personal fulfillment. The Adult Education Program is a separate non-credit component of TVI. Adult Education students receive 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.

Se Habla Español. Nuestro objetivo en el programa de Educación Para Adultos en TVI es ayudar a los estudiantes a identificar y realizar sus metas educacionales básicas. Para cumplir con ello, ofrecemos cursos, sin crédito, en Inglés como segunda idioma (ESL), cursos que tratan las destrezas academicas fundamentales, así también como el mundo del trabajo y de la vida cotidiana. Todas estas clases podrán conducir al estudiante hacia más educación, avence en el trabajo y/o realización personal.

Locations. 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.

Registration. Anyone interested in registering for an Adult Education course may do so in person 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 (224-3939), the H Building at Montoya Campus (224-5681) and in the main office area at South Valley Campus (224-5010). Prior to registering for classes, students are required to complete the CASAS assessment for placement into classes.

Costs. Classes and textbooks are provided free to students.

Attendance. Teachers take attendance at each class session. If a student is absent four classes in a row, the teacher tries to contact the student. A student may be dropped from the 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.

Standards of Progress. Each student receives a certificate that indicates the total number of hours attended in each course. No letter grades are given.

Classes. Offerings reflect the needs of the community and may change from term to term. Generally, the Adult Education program offers classes in three areas of study: basic skills (including preparation for the GED high school equivalency exam; class prefix BSK), En-

glish as a second language (prefix ESL) and job/life skills (JLS). Unless otherwise noted, classes are offered in full-term format; others are offered in short sessions.

DEVELOPMENTAL EDUCATION

Credit College-preparatory Courses

Developmental Education courses prepare students for liberal arts or vocational majors, for self-improvement or 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. These courses are tuition-free but students must pay the registration fee and purchase their own textbooks.

Developmental courses are numbered 090 through 100. Subjects are English (course prefix ENG), developmental math (MATH), reading (RDG), skills (SSKL), science (SCIE), biology (BIO), chemistry (CHEM), occupational topics (OCC), accounting (ACCT), business (BA), 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 R. McBroom, dean; Ph.D.

R. Jane Bradley, associate dean; Ph.D.

Kris L. Ford, associate dean; M.A.

Tim Allen, math and science instructor; B.S.E.

Roberta Ataman, English and reading instructor; M.Ed.

Donald Bauer, math, reading, basic skills and drafting instructor; B.S.

Hailey Binford, ESL instructor; M.A.

Judith L. Brown, math, reading and study skills instructor; M.A.

Paige Brown, health, science and math instructor; M.Ed.

Angelika S. Carroll, English and reading instructor; M.A.

James N. Chaves, math and science-electronics instructor; M.S.

Marie Chavez, ESL/Spanish and basic skills instructor; M.A.

Max Cisneros Jr., math instructor; B.A.

Linda Clay, math instructor; M.A.

Marya Corriagan, director of instruction, Adult Education; M.A.

Don Croxton, math instructor; B.S.

Darryl Domonkos, math and reading instructor; M.C.P.

Martin J. Doviak, English and math instructor; M.A.

Shirley Ellison-Pryor, special education, math, reading and English instructor; M.A.

M. Sue Fox, basic skills and English instructor; M.B.A.

Vicki Froehlich, math instructor; M.Ed.

Stephen Gallegos, reading and study skills instructor; M.A.

Katherine Green, English and reading instructor; M.A.

Liza Greenberg, English and reading instructor; M.A.

Constance Gulick, English and reading instructor; M.A.

Jean Hafner, science and math instructor; B.S.

Vicki Hagen, English and reading instructor; M.A.

Janice Hart, English instructor; M.A.

Teresa Hill, English and reading instructor; B.A.

Margaret Ann (Gretta) Hochstatter, math instructor; B.S.

Donna Hurtado, special education, English, reading and math instructor; B.A.

William Johns, math and electronics instructor; M.A.

Larry Johnson, special education, reading, math, and computer instructor; M.A.

James B. Kimmons, math and reading instructor; M.A.

Nancy King, English instructor; M.A.

David Kohles, accounting, math and science instructor; B.S. Ed.

Judy G. Kristl, math, reading and English instructor; B.S.

Joseph R. Krzyzanowski, math instructor; M.A.

Don Lauser, basic math and computer skills instructor; M.A.

Gerald Leister, English and math instructor; Ed.D.

Lester L. Lewis, director of student transitional services; B.A.

Eugenia Sproul Lott, ESL Spanish instructor; M.A.

Ilene Perl Maness, chemistry and math instructor; M.A.

Connie Jo Martinez, English, math and business occupations instructor; M.B.A.

Elizabeth C. Martinez, English, math and business occupations instructor; M.A.

Charles McKenzie, math instructor; M.S.

Marcie Bernal McKenzie, ESL, reading and literacy instructor; M.A.

Charles Miller, math instructor; B.S.

Elizabeth O'Neall, English instructor; B.A.

Maria C. Pacheco, science and math instructor; B.S.

Deborah Weaver Parker, English, math and reading instructor; M.A.

Linda Pope, English, math and reading instructor; M.A.

Robin Ramsey, reading and English instructor; M.A.

Richard Randolph, English and reading instructor; Ph.D.

Mark Rudd, math instructor; B.A.

Juan M. Saavedra, math and computer skills instructor; B.A.

Therese Samuel, ESL and literacy instructor; B.A.

Gary Sandstrom, math and health instructor; M.A.

Glenna Siddons, English instructor; M.A.

Joan N. Silverstein, literacy, basic skills and ESL instructor; M.A.

Sue Small, basic skills and writing instructor; M.A.

Jana Smith, director of instruction, Developmental Education; B.S.

Theresa Sullo, English and reading instructor; M.A.

Ann Tran, math and English instructor; M.A.

Deloris Watkins, English, math and business occupations instructor; B.A.

Phillip Weaver, math, reading and science instructor; M.A.

Mary Willingham, math and science instructor; M.S., M.A.

Cynthia Wooley-Guillen, ESL and basic skills 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 have 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 (prefix GNHN) 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). Uniforms and textbooks are provided. Because these courses (prefix AFAS) are offered at the main campus of UNM, students should contact UNM before enrolling:

Evette E. Aponte, Lt. Col., USAF, Commander
Aerospace Studies
University of New Mexico AFROTC Detachment 5 10
Aerospace Studies Building, 1901 Las Lomas NE
277-4502

Credits in Aerospace Studies may not be applied to any associate degree or certificate at TVI. Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits.

FULL-TIME INSTRUCTIONAL PERSONNEL

Susan A. Murphy, dean; Ph.D.

Jon Bentley, associate dean; M.A.

Janet Escobedo, associate dean; M.S.

Susan Reyner, associate dean; Ph.D.

Rama Akkaraju, mathematics instructor; M.S.

Richard Araiza, mathematics instructor/chairman; M.A.

Jane Bardal, psychology instructor; Ph.D.

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; M.A.

Gina R. Chance, sociology instructor; M.A.

Steve Cormier, history instructor; Ph.D.

Sravanthi Cornell, chemistry instructor; Ph.D.

Lee Couch, biology instructor; M.S.

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; Ph.D.

Jeanne Elmhorst, communication studies instructor; M.A.

Joseph Eridon, chemistry instructor/chairman; M.S.

Don Fisher, history instructor; Ed.D.

Virginia Fisher, mathematics instructor; M.A.

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; Ph.D.

Bruce Hofkin, biology instructor; Ph.D.

Sherry Holmen, communication studies instructor/chairman; M.A.

Patrick Houlihan, English/journalism instructor; Ph.D.

Havva Houshmand, humanities/religion instructor; Ph.D.

Julie Huntsman, biology instructor; M.S.

Shepherd Jenks, anthropology instructor; Ph.D.

James Johnson, psychology instructor; M.A.

Stephanie Kauffman, English instructor; Ph.D.

Maureen Kelly, mathematics instructor; M.A.

William Kuipers, biology instructor; Ph.D.

George Lane, philosophy 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.

Stephen Mathewson, English instructor; Ph.D.

Layne McAdoo, sociology instructor; Ph.D.

Colleen McNamara, biology instructor; Ph.D.

Shelly Metz, psychology instructor/chairman; Ph.D.

Deborah Miller, chemistry instructor; M.S.

William Miller, philosophy instructor/chairman; M.A.

Deborah Muldavin, biology instructor/chairman; M.A.

Barbara Muller, English instructor; M.A.

William Murrell, philosophy instructor; Ph.D.

Linda Oldham, English instructor; M.A.

Lisa M. Orick, communication studies instructor; M.A.

Umesh Pandey, physics instructor/chairman; M.S.

Kate Parker, English instructor/chairman; Ph.D.

Harold Partin, mathematics instructor; Ph.D.

George Pletsch, mathematics instructor; Ph.D.

Alan Pope, English instructor; Ph.D.

Mary Prentice, psychology instructor; M.S.

Fred Ream, mathematics instructor; M.A.

Jim Rewalt, mathematics instructor; M.S.

Geri Rhodes, English instructor; Ph.D.

Ruth Risse, Spanish instructor; Ph.D.
Patricia Rosas-Reed, Spanish instructor; Ph.D.
Tomas Ruiz-Fabrega, Spanish instructor; Ph.D.
Phil Sanchez, communication studies instructor; M.A.
Jamie Seamy, English instructor; M.A.
Patricia Seitz, sociology instructor; Ph.D.
Janet Shagam, biology 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.
James Swan, biology instructor; M.S.
J. Ross Thomas, economics instructor; Ph.D.
Dennis Vargo, mathematics instructor; M.A.
Lucy Vigil, Spanish instructor/chairman; Ph.D.
Marie Villarba, 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 **224-3811**

The mission of the Business Occupations Department is to build business careers. This is accomplished by providing education, training and skills students 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 certificates, certificate programs, associate of applied science degrees and an associate of arts degree.

Business Occupations classes may be scheduled during the day, evening and/or Saturday at all four TVI campuses, at arranged on-site locations and through distance learning delivery methods.

Some programs, courses and elective courses are not offered every term. 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 (program directors have details).

Business Occupations programs that have received national accreditation are:

- ☐ Accounting: Association of Collegiate Business Schools and Programs
- ☐ Administrative Assistant: Association of Collegiate Business Schools and Programs
- ☐ Business Administration: Association of Collegiate Business Schools and Programs
- ☐ Microcomputer Management: Association of Collegiate Business Schools and Programs
- ☐ Pre-Management: Association of Collegiate Business Schools and Programs
- ☐ Court Reporting: National Court Reporters Association
- ☐ Legal Assistant Studies: American Bar Association

The North Central Association of Colleges and Schools, TVI's accrediting agency, encourages outcomes assessment for instructional programs. All Business Occupations students are required to participate in outcomes assessment. Test scores do not affect graduation status. Program directors 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 Department 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 must communicate with the Financial Aid Office before selecting a grade option.

A keyboarding skill of 25 words per minute is recommended before students enroll in some business courses and is required for entry into the Microcomputer Management and Business Graphics and Communication programs. Keyboarding at 35 words per minute is required for entry into the Court Reporting program. Keyboarding courses are available in the Business Occupations Department.

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

BUSINESS RESOURCE CENTERS

The Business Resource Centers (BRC) at Main (224-3840) and Montoya (224-5596) 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 outside assignments and utilize resources and state-of-the-art technology to create projects and presentations.

FULL-TIME INSTRUCTIONAL PERSONNEL

Lois Carlson, CPA, dean; Ph.D.

Don Adams, microcomputer management instructor; M.S.Mgt.

Dawn Addington, CPA, accounting instructor; M.Acc.

Cheryl Bartlett, CPA, accounting instructor; M.B.A.

David Bency, CPA, accounting instructor; B.B.A.

David Bergsland, business graphics and communications instructor; B.F.A.

Mary Burt, administrative assistant instructor; M.A.

Wallace Cates, microcomputer management instructor; B.S.

Leigh Anne Chavez, legal assistant studies instructor; J.D.

Paul Clark, microcomputer management instructor; M. S.

Susie Cutler, administrative assistant instructor; M.A.

Anita H. Frantz, director of legal studies; J.D.

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, microcomputer management instructor; M.A.

Nadine Grosjean, administrative assistant instructor; M.A.

Sue Gunckel, CPA, accounting instructor; M.S.W.

Gary Hays, business administration instructor; B.S.

Mary Carole Helton, microcomputer management instructor; M.P.A.

Susan Herrington, microcomputer management instructor; M.A.

Debbie Hester-Rael, CPA, accounting instructor; B.S., B.A.

Bob Hildenbrand, CPA, accounting instructor; M.S.

Jim Holmes, accounting instructor; M.B.A.

Judy Johnson, administrative assistant instructor; M.A.

Marilyn Konnick, administrative assistant instructor; M.A.

Deborah LaPointe, court reporting instructor; M.S.

Kathleen Leistikow, business administration instructor; J.D.

Marvin Lozano, international business instructor; M.S.

Fannie B. Lujan, administrative assistant instructor; B.S.

Marilyn Maclay, administrative assistant instructor; M.A.

Gail Maddoux, business administration instructor; M.A., M.B.A.

Gloria Madrid, administrative assistant instructor; Ed.D.

Linda Maggart, administrative assistant instructor; B.S.

Joyce Matthews, CPA, accounting instructor; M.A.

Carmen Mendoza, RMR, CRR, CCR, court reporting instructor; A.A.S.

Susanna Merchant, administrative assistant instructor; M.A.

William Price, accounting instructor; M.Acc.

William H. Putman, legal assistant studies instructor; J.D.

Robert T. Reeback, legal assistant studies instructor; J.D.

Virginia Rich, administrative assistant instructor; M.Ed.

David Steele, business administration instructor; M.B.A.

Anita Sterchi, administrative assistant instructor; M.A.

Judith Teak, administrative assistant instructor; M.A.

Dan Valles, microcomputer management instructor; M.B.A.

Wallace Van Dusen, microcomputer management instructor; M.B.A.

Anita Vaughn, administrative assistant instructor; M.P.A.

José Angel Vélez, microcomputer management instructor; B.A.

John Warns, business administration instructor; B.A.

Joe Webster, CMA, accounting instructor; M.B.A.

Michael Williams, hospitality and tourism instructor; B.A.

Kim Wong, business administration instructor; J.D.

HEALTH OCCUPATIONS

http://www.tvi.cc.nm.us/health/ **224-4111**

The Health Occupations Department provides entry-level training and skill upgrading in a variety of medical fields as well as child development.

Special courses, for which a department certificate 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 and Rio Rancho 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.

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.

FULL-TIME INSTRUCTIONAL PERSONNEL

Sally J. Pearson, dean; M.S.

John Blewett, RRT, RCP, respiratory therapy instructor; B.U.S.

Teresa Brito-Asenap, child, youth and family development program director; M.A.

Karen Connors, RN, nursing instructor; M.S.N.

Lynne Curtis, RN, health unit clerk program chair; M.A.

Patricia Everett, RN, surgical programs chair; M.S.N.

Charles Fatta, RRT, RCP, respiratory therapy program clinical coordinator; M.B.A.

Pamela Fletcher, RD/LD, nutrition instructor; M.A.

Richard Gentile Jr., RRT, RCP, respiratory therapy program director; M.Ed.

David Gordon, RRT, RCP, respiratory therapy instructor; M.A.

Regina Janke, RN, nursing instructor; M.S.N.

Monya Kmetz, MT (ASCP), medical laboratory technician program director; M.A.

Patricia Loflin, RN, nursing instructor; M.S.N.

Lorraine Lowen, RN, nursing instructor; M.S.N.

Sandra Luck, child, youth and family development instructor; M.A.

Janet Mason, RN, nursing instructor; M.S.N.

Ruth McCall, MT (ASCP), CLS (NCA), phlebotomy and clinical lab assistant program director; B.S.

Paulette McNeill, RN, nursing instructor; M.S.N.

Susan Michalske, RN, nursing instructor; M.S.N.

Gloria Monek-Kovanis, RN, nursing instructor; M.S.N.

Susan Morgan, RN, nursing instructor; M.N.

Mary Moser-Gautreaux, RN, nursing instructor; M.S.N.

Delores Pederson, RN, nursing assistant instructor; B.S.N.

Marie Rea-Trujillo, RN, nursing instructor; M.S.N.

Marian Sawyier, RN, nursing instructor; M.S.N.

Douglas Scribner, CPhT, pharmacy technician program chair; B.A.

Ann E. Sims, RN, nursing assistant and healthcare technician program director; B.S.N.

Penelope Stanley, RN, nursing instructor; M.N.

Patricia Stephens, RN, nursing programs director; M.S.N., M.A.

Carol Winkles, RN, nursing instructor; M.S.N.

TECHNOLOGIES

http://tech.tvi.cc.nm.us/ **224-3340**

The high-skilled, high-tech jobs of the 21st century will demand specialized entry-level training and skill upgrading, and the Technologies Department offers both, along with state-of-the-art equipment to support them.

Several programs offer concentrations so 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, reading at a minimum of eighth-grade level 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 Technologies programs are encouraged to join clubs in their field of study, including the Computer Technology Student Association, the Society of Manufacturing Engineers and Skills USA (formerly Vocational Industrial Clubs of America). 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.

FULL-TIME INSTRUCTIONAL PERSONNEL

Richard Birkey, dean; Ed.D

Steve Benavidez, assistant dean; M.A.

Ed Baca-Green, manufacturing technology instructor; B.S.I.E.

Gordon Bennett, electronics technology instructor; B.S.

Joseph Black, electronics technology instructor; M.P.A., M.S.E.E.

William Boettcher, electronics engineering instructor; M.S.E.E.

Bruce Bush, electronics technology instructor; B.S.

Phyllis Cece, architectural/engineering drafting technology instructor; B.A.

David Clauss, computer networking technology instructor; B.A.

Frederick Downum, construction management instructor; B.S.

Steven Fraker, architectural/engineering drafting technology instructor; M.A.

Hayward Franklin, computing technology instructor; Ph.D.

Eileen Garcia, computing technology instructor; B.S.

Joel Gellman, electronics technology instructor; B.S.I.E.

Terry Gonzales, computing technology instructor; B.A.

Gordon Hall, registered architect, architectural/engineering drafting technology instructor; M.Arch.

James Hart, computer networking instructor; B.U.S.

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 technology instructor; B.U.S.

Eric Krosche, manufacturing technology instructor; M.S.

Fred Lavender, manufacturing technology instructor; M.S.

Darrell Leland, computer animation instructor; M.A.

Fabian Lopez, electronics technology instructor

Mildred Lovato, achievement coach; M.A.

Earnestine Mitchell computing technology instructor; B.A.

Paul Quan, director, computing technology; M.S.

Jimmy Reed, computing technology instructor; B.S.

Laurence Rose, computer animation instructor; M.S.

Linda Schmidt, manufacturing technology instructor; B.S.E.

Daniel Shaffer, design drafting engineering technology instructor; M.A., M.S.

Susan Sujka, electronics technology instructor; B.S.

Paul Trujillo, electronics technology instructor; B.S.E.E.

Theodore Trujillo, electronics technology instructor; B.S.

Ramon Vigil, electronics technology instructor; B.A.

Wesley Wesbrooks, electronics technology instructor; M.S.E.E.

Michael White, electronics engineering technology instructor; M.S.E.E.

Elizabeth Wilkinson, computer animation instructor; B.A.

Mary Jane Willis, manufacturing technology instructor; M.A.

TRADES & SERVICE OCCUPATIONS

http://www.tvi.cc.nm.us/trades **224-3711**

The Trades & Service Occupations Department provides a technical learning environment dedicated 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, for job advancement and for 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 entry-level-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 287.1-1979. 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.

Optional Courses

Optional courses are offered in remodeling (course prefix: BT), small engine skills improvement (SCSI), 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 apprenticeships for persons currently employed in commercial carpentry, electrical trades, iron worker, plumbing and sheet metal (see page 48).

FULL-TIME INSTRUCTIONAL PERSONNEL

Joseph J. Rodman, dean; M.Ed.

Paula Fisher, assistant dean; M.A.

Alain Archuleta, Skills USA chair; B.S.

Earnest Arko, construction technology chair; B.A.

Paul Baxter, truck driving instructor; B.S.

Paul Beck, machine tool technology instructor; B.S.

Salvatore Benevegna, air conditioning, heating and refrigeration instructor; B.A.

Noel Binford, safety chair; B.S.

John Bronisz, automotive instructor; B.A.

Timothy Brown, electrical trades instructor; B.S.

Thomas Bryant, diesel equipment technology instructor; B.S.

Glen Bugge, automotive technology instructor; B.S.

Darcy Buland de Vallejos, quantity foods instructor; B.S.

Gary Cline, baking instructor; M.A.

Darrell Creel, truck driving chair; B.A.

James DeMarcus, mechanical technology chair; B.S.

Patrick Dunworth, criminal justice instructor; B.S.

John P. Gabaldon, electrical trades instructor; B.S.

Scott Henriksen, automotive technology instructor; M.A.

Walter Hensley, welding instructor

Dave Hinchcliffe, carpentry instructor; B.S.

John Hostak, service occupations director; M.S.

Joyce Jones, quantity foods instructor; B.S.

Michael Kavanaugh, fire science instructor; B.S.

Robert Kho, automotive technology instructor; B.A.

Barry King, environmental technology instructor; M.S.

Michael Lehmann, criminal justice instructor; B.S.

Samuel E. Lovelette, electrical trades instructor; B.S.

Mario Lozoya, welding instructor; B.U.S.

Ronald Marshall, commercial printing instructor; B.S.

Elizabeth McGeehan, baking instructor; B.A.

Thomas J. Morris III, fitness technician instructor; M.S.

Larry Mounger, transportation technology chair; B.S.

John Murray, construction/mechanical technology director; B.A.

Walter Niederberger, criminal justice instructor; M.S.

Simon Nunez, Jr., plumbing instructor; B.S.

John Pierce, carpentry instructor; B.A.

Carmine Russo, service occupations chair; B.S.

Jerry Sais, metals/transportation director; B.S.

Martin Samudio, quantity foods instructor; B.S.

Harold Senke, environmental technology instructor; B.S.

Lewis Steinberg, air conditioning, heating and refrigeration instructor

Greg Tolbert, air conditioning, heating and refrigeration instructor

Richard Warren, metals chair; B.S.

Charles R. Yonker, student academic achievement chair; B.S.

PROGRAMS OF STUDY

ACCOUNTING

Business Occupations Department

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

Many of the Business Occupations Department's accounting courses are accepted for fulfillment of the education requirement for the Certified Public Accountancy (CPA) and Certified Management Accounting (CMA) exams. However, a bachelor's degree is a requirement for both exams and must be obtained from an accredited four-year postsecondary educational institution.

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

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

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

			Credit Hours
ACCT	101	Financial Accounting I	
or ACCT 101A and ACCT 101B			6
ACCT	102	Financial Accounting II	
or ACCT 102A and ACCT 102B			6
ACCT	111	Business Math	3
ACCT	201	Intermediate Accounting I	4
ACCT	202	Intermediate Accounting II	4
*ACCT	240	Tax Accounting I	3
ACCT	254	Electronic Spreadsheets	3
ACCT	255	Computerized Accounting	3
ACCT	260	Cost Accounting	3
ACCT	280	Managerial Accounting	3
BA	113	Introduction to Business	3
BA	121	Business English	3
BA	122	Business Writing	3
BA	131	Business Interpersonal Skills (7.5 weeks)	2
BA	133	Principles of Management	3
BA	150	Introduction to Computer Processing	4
BA	211	Business Law	3
Two approved electives for certificate; one for degree			3-6
		Total Required for Certificate	65
		Degree (Occupational Component)	62

*ACCT 150/151 may be used for certificate in lieu of ACCT 240.

Courses Required for Degree

ENG	101	College Writing	3
COMM	130 or 221 or 232 or 240		3
MATH	120	Intermediate Algebra or MATH 121, 123, 150, 162, 163 or 180	3-4
MATH	145	Introduction to Probability and Statistics	
or MATH	245	Fundamentals of Probability and Statistics	3
Social Science/Humanities Elective			3
		Total Required for Degree	78-79

Approved Electives

ACCT	150	VITA Tax Preparation	2

ACCT	151	VITA Tax Internship	1
ACCT	241	Tax Accounting II	3
ACCT	270	Governmental Accounting	3
ACCT	271	Auditing	3
ACCT	272	Accounting Systems Design	3
ACCT	296	Accounting Topics	1-3
ACCT	298	Internship	4
ACCT	299	Cooperative Education	4
BA	215	Money and Banking	3
ECON	200	Macroeconomics	3
MMS Course(s)			1-3

ADMINISTRATIVE ASSISTANT

Business Occupations Department

The Administrative Assistant program offers training in organizational and interpersonal skills, as well as office technology and written communication. Students are given opportunities to develop marketable skills and attitudes necessary to meet the demands of the changing office environment. Concentrations in office technology and medical allow students to customize their academic program to specialized fields.

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

The associate of applied science degree may be transferred to the University of New Mexico for credit toward a bachelor's degree in Organizational Learning and Instructional Technology.

The program was previously named Secretarial Studies.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-3819.

Suggested schedules per term include:

Office Technology Concentration

Term 1: AA 101, 102, ACCT 111, BA 131, 150
Term 2: AA 107, 112, 143, BA 121, MMS 150, 157, 160
Term 3: AA 202, 205, BA 113, 122, elective
Term 4: AA 200, 231, 260, electives

Medical Concentration

Term 1: AA 101,102, BA 150, CR 132
Term 2: AA 107, 143, 275, ACCT 111, BA 121
Term 3: AA 205, 276, BA 113, 122, 131
Term 4: AA 260, 277, electives

			Credit Hours
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	3
BA	121	Business English	3
BA	122	Business Writing	3
BA	131	Business Interpersonal Skills (7.5 weeks)	2
BA	150	Introduction to Computer Processing	4
Arts & Sciences elective (except Military Studies and CSCI 101)			3
	Subtotal		**37**

OFFICE TECHNOLOGY CONCENTRATION

AA	**112**	Office Accounting Procedures	4

AA	200	Advanced Word Processing	3
AA	202	Information Processing	3
AA	231	Business English Applications	3
MMS	150	Microsoft Windows (5 weeks)	1
MMS	157	PowerPoint Fundamentals (5 weeks)	1
MMS	160	Introduction to the Internet (5 weeks)	1
Approved Office Technology Electives			6
		Total Required for Certificate	**59**

MEDICAL CONCENTRATION

AA	275	ICD-9-CM Coding	3
AA	276	Current Procedural Terminology (CPT)	3
AA	277	Medical Insurance	3
CR	132	Medical Terminology and Anatomy	3
Approved Medical Electives			6
		Total Required for Certificate	**55**

Courses Required for Degree

BA	133	Principles of Management	3
COMM	130 or 221 or 232 or 240		3
ENG	101	College Writing	3
MATH	119	Methods of Problem Solving or higher	
or Biological and Physical Science Elective			3-4
Social Science/Humanities Elective			3
		Total Required for Degree	**70-75**

APPROVED OFFICE TECHNOLOGY ELECTIVES

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	298	Internship	4
AA	299	Cooperative Education	4
BA	157	Computer Accounting for Small Business (5 weeks)	1
BA	211	Business Law	3
DE	101	Data Entry Skill-building (7.5 weeks)	2
MMS	134	WordPerfect for Windows	3
MMS	140	Data Communications Essentials	3
MMS	151	DOS Fundamentals (5 weeks)	1
MMS	156	Office Management Software (5 weeks)	1
MMS	161	Project Management (5 weeks)	1
MMS	164	Intermediate Windows (5 weeks)	1
MMS	171	Hypertext Markup Language (HTML) (5 weeks)	1
MMS	172	Web Construction Coding (5 weeks)	1
MMS	177	Beginning FrontPage (5 weeks)	1
MMS	178	Intermediate FrontPage (5 weeks)	1
MMS	201	Hardware and Software Administration	3
MMS	255	Desktop Publishing	3
SSKL	211	Employment Skills-General (15 hours)	1

APPROVED MEDICAL ELECTIVES

AA	112	Office Accounting Procedures	4
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	174	Computers in the Medical Office (5 weeks)	1
AA	231	Business English Applications	3
AA	250	Machine Transcription	3
AA	270	Medical Transcription	3
AA	296	Topics Course	1-3
AA	298	Internship	4
AA	299	Cooperative Education	4
DE	101	Data Entry Skill-building (7.5 weeks)	2
MMS	150	Microsoft Windows (5 weeks)	1
MMS	160	Introduction to the Internet (5 weeks)	1
SSKL	211	Employment Skills-General (15 hours)	1

AIR CONDITIONING, HEATING AND REFRIGERATION

Trades & Service Occupations Department

The Air Conditioning, Heating and Refrigeration program prepares students for entry into the installation, maintenance and service field. With on-the-job experience and field training, the graduate of this program should be able to advance quickly. 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 224-3 177 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

			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 Application	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

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).

The program provides related classroom instruction.

Students must purchase textbooks and instructional materials through the local ABC 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 office.

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).

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

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).

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

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

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, reading at a minimum of eighth-grade level, 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 224-3351.

CERTIFICATE AND DEGREE REQUIREMENTS

			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	182	Advanced CAD	2
ARDR	209L	Architectural Design	2
ARDR	221	Architectural/Engineering Drafting Seminar	1
		Total for Certificate	39

ADDITIONAL ASSOCIATE DEGREE REQUIREMENTS

Term 3			
ART	260	Architectural History: Ancient Through Modern	3
PHYS	102	Introduction to Physics	3
Terms 4 and 5			
ARDR	113	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 TECHNOLOGY

Trades & Service Occupations Department

The Automotive Technology program is designed to prepare men and women 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, strong work ethic 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 224-3 177 or 224-5646 and from the director at 224-37 18.

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

			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**

Optional Courses

AUTC	170	Transportation Trades Machining	3

AUTC	172	Air Care Inspector	1
AUTC	174L	Alternative Fuels	2

BAKING

Trades & Service Occupations Department

This 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 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 224-3 177 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

			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	4
		Total	29

BOOKKEEPING

Business Occupations Department

The 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 as well as the basics of bookkeeping, written and verbal communication and introductory computer and accounting skills.

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

A suggested schedule per term for the Bookkeeping certificate includes:
Term 1:ACCT 101, 111, BA 113, 131

Term 2: ACCT 102, BA 121,150
Term 3: ACCT 254,298 or 299, BA 133, approved elective

			Credit Hours
ACCT	101	Financial Accounting I	
or ACCT	101A and ACCT 101B		6
ACCT	102	Financial Accounting II	
or ACCT	102A and ACCT 102B		6
ACCT	111	Business Math	3
ACCT	254	Electronic Spreadsheets	3
ACCT	298	Internship	
or ACCT	299	Cooperative Education	4
BA	121	Business English	3
BA	113	Introduction to Business	3
BA	131	Business Interpersonal Skills (7.5 weeks)	2
BA	133	Principles of Management	3
BA	150	Introduction to Computer Processing	4
Approved elective(s)			3
	Total		40

Approved Electives

ACCT	150	VITA Tax Preparation	2
ACCT	151	VITA Tax Internship	1
ACCT	201	Intermediate Accounting I	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	272	Accounting Systems Design	3
ACCT	280	Managerial Accounting	3
ACCT	296	Accounting Topics	1-3
MMS Course(s)			1-3

BUSINESS ADMINISTRATION

Business Occupations Department

The Business Administration program provides students with the required business skills, knowledge and experience for today and in the future.

The associate of applied science degree in Business Administration offers concentrations in continuous quality improvement (CQI), general business, international business, merchandising, real estate, small business management and hospitality/tourism.

The hospitality/tourism concentration includes elective courses sponsored by the Educational Institute (EI), an educational foundation of the American Hotel and Motel Association (AH&MA). These courses may be used toward industry-recognized professional certification. All courses in the real estate concentration are approved by the New Mexico Real Estate Commission (NMREC) for either pre-licensing or continuing education requirements. All courses offered in real estate appraisal are approved by the New Mexico Real Estate Appraisers Board (NMREAB).

Associate of applied science degree students select from the list of elective courses in the concentrations to prepare for their employment goals. Not all elective courses are offered each term. A minimum of 12 students is required for an elective course to be offered.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-3823.

A suggested schedule per term for the occupational

component of the certificate/associate of applied science degree program in Business Administration includes:

Term 1: ACCT 101 or 101A and 101B, 111, BA 113, 121, 131

Term 2: ACCT 102 or 102A and 102B, BA 122, 133, 150

Term 3: ACCT 254, BA 157, 211, 222, 284, elective

Term 4: Concentrations

			Credit Hours
ACCT	101	Financial Accounting I	
or ACCT	101A and ACCT 101B		6
ACCT	102	Financial Accounting II	
or ACCT	102A and ACCT 102B		6
ACCT	111	Business Math	3
ACCT	254	Electronic Spreadsheets	3
BA	113	Introduction to Business	3
BA	121	Business English	3
*BA	122	Business Writing	
or*ENG	101	College Writing	3
BA	131	Business Interpersonal Skills (7.5 weeks)	2
BA	133	Principles of Management	3
BA	150	Introduction to Computer Processing	4
BA	157	Computer Accounting for Small Business (5 weeks)	1
BA	211	Business Law	3
BA	222	Principles of Marketing	3
BA	284	Sales	3
Approved elective (see concentrations)			3-4
		Total Required for Certificate	49-50

*One course required for certificate; both required for associate degree.

Courses Required for Degree

COMM	130 or 221 or 232 or 240		3
ECON	200	Macroeconomics or higher level	3
ENG	101	College Writing	3
MATH	120	Intermediate Algebra or higher level math	3-4
PHIL	245B	Business Ethics	3
		Subtotal Required for Degree	64-66

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 Elective			3-4
		Total Required for Degree	73-76

GENERAL BUSINESS CONCENTRATION

BA	299	Cooperative Education	4
Two Approved Electives			6
		Total Required for Degree	74-76

HOSPITALITY/TOURISM CONCENTRATION

BA	252	Customer Relations	3
HT	102	Tourism and the Hospitality Industry	3
HT	104	Hospitality Supervision	3
		Total Required for Degree	73-75

INTERNATIONAL BUSINESS CONCENTRATION

IB	101	Introduction to International Business	3
IB	202	International Management	3
Approved		International Business Elective	3
		Total Required for Degree	73-75

MERCHANDISING CONCENTRATION

BA	252	Customer Relations	3
BA	253	Retailing	
or BA	286	Advertising	3
Approved		Elective	3-4
		Total Required for Degree	7376

REAL ESTATE CONCENTRATION

BA	270	Real Estate Law	3
BA	271	Real Estate Practice	3
Approved		Real Estate Elective	3
		Total Required for Degree	73-75

SMALL BUSINESS MANAGEMENT CONCENTRATION

BA	252	Customer Relations	3
BA	286	Advertising	3
ENTR	101	Entrepreneurship	6
		Total Required for Degree	76-78

APPROVED ELECTIVES

AA	275	ICD-9-CM Coding	3
AA	276	CPT Coding	3
ACCT	240	Tax Accounting I	3
ACCT	255	Computerized Accounting	3
ACCT	260	Cost Accounting	3
ACCT	272	Accounting Systems Design	3
ACCT	280	Managerial Accounting	3
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
BA	117	Character Counts (5 weeks)	1
BA	118	Character Counts in the Workplace (5 weeks)	1
BA	119	Character Counts and the Decision-making Model (5 weeks)	1
BA	159	Intermediate Quickbooks (5 weeks)	1
BA	215	Money and Banking	3

BA	251	Retail Merchandising	3
BA	252	Customer Relations	3
BA	253	Retailing	3
BA	260	Purchasing	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
BA	274	Real Estate Investment	3
BA	275	Property Management	3
BA	276	NMREC Mandatory Course (5 weeks)	1
BA	279	Uniform Standards of Professional Appraisal Practice (7.5 weeks)	2
BA	280	Fair Housing Law (5 weeks)	1
BA	281	Americans with Disabilities Act and Related Handicap Discrimination Law (5 weeks)	1
BA	282	Appraising the Single-family Residence	3
BA	283	Rules and Regulations of the New Mexico Real Estate Commission (5 weeks)	1
BA	286	Advertising	3
BA	287	Delta Epsilon Chi Competition	1
BA	289	Strategic Planning	3
BA	296	Business Topics	1-3
BA	298	Internship	4
BA	299	Cooperative Education	4
BA	299A	Cooperative Education I	1
BA	299B	Cooperative Education II	1
BA	299C	Cooperative Education III	1
BA	299D	Cooperative Education IV	1
ENTR	101	Entrepreneurship	6
ENTR	102	Entrepreneurship in a Global Setting	3
HT	101	Introduction to Hospitality Today	3
HT	104	Tourism and the Hospitality Industry	3
HT	106	Front Office Procedures	3
HT	108	Hospitality Supervision	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	132	Hotel/Motel Human Resources Management	3
HT	134	Hospitality Energy and Water Management	3
HT	136	Hospitality Industry Training	3
HT	138	Hospitality Industry Engineering Systems	3
HT	141	Marketing of Hospitality Services	3
HT	144	Hospitality Sales and Marketing	3
HT	146	Convention Management and Service	3
HT	161	Hotel/Motel Food and Beverage Management	3
HT	164	Hotel/Motel Food and Beverage	3
HT	166	Quality Sanitation Management	3
HT	168	Food and Beverage Controls	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	221	Hospitality Law	3
HT	224	Hotel/Motel Law	3
HT	226	Hotel/Motel Security Management	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
MMS	134	WordPerfect for Windows	3
MMS	135	Microsoft Word for Windows	3
MMS	151	DOS Fundamentals (5 weeks)	1
MMS	154	Desktop Publishing Using Word (5 weeks)	1
MMS	156	Office Management Software (5 weeks)	1
MMS	158	Excel Fundamentals (5 weeks)	1
MMS	159	Access Fundamentals (5 weeks)	1
MMS	255	Desktop Publishing	3
MMS	257	Presentation Graphics	3
FSMG	101A	Food Sanitation Principles	2
FSMG	101B	Applied Food Safety	1
SSKL	211	Employment Skills - General	1

BUSINESS GRAPHICS AND COMMUNICATION

Business Occupations Department

The Business Graphics and Communication program combines creative design, language skills and production training. Students are prepared to create documents for marketing, advertising, presentation, multimedia and print. There is a strong focus on practical production and troubleshooting techniques.

The early courses emphasize training in language skills and creativity. Training is also begun very early in drawing, creative writing and illustration.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-3819.

A suggested schedule per term for the Business Graphics and Communication certificate/associate of applied science degree includes:

Term 1: ACCT 101A, ART 121, BA 113, 121, ENG 101

Term 2: BGC 200, BA 222, MMS 170, 257, approved elective

Term 3: BGC 201, 202, 203, MMS 271, approved elective

Term 4: ART 106, BGC 204, BA 133, COMM 130 or 221 or 232 or 240, ECON 101, MATH 119 or 120

Term 5: ENG 221, approved art elective

			Credit Hours
ACCT	101A	Financial Accounting IA	3
ART	121	Two Dimensional Design	3
BA	113	Introduction to Business	3
BA	121	Business English	3
BA	222	Principles of Marketing	3
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
ENG	101	College Writing	3
MMS	170	Introduction to Multimedia	3
MMS	257	Presentation Graphics	3
MMS	271	Macromedia Director	3

Approved Electives			6
Total Required for Certificate			**48**

Courses Required for Degree

ART	106	Basic Drawing	3
BA	133	Principles of Management	3
COMM	130 or 221 or 232 or 240		3
ECON	101	Introduction to Economics	3
ENG	221	Creative Writing: Fiction	3
MATH	119	Methods of Problem Solving	
or MATH	120	Intermediate Algebra	4
Approved Art Elective			3
Total Required for Degree			**70**

Approved Art Electives

ART	101	Introduction to Art	3
ART	122	Three-dimensional Design	3
ART	251	Art of the American Southwest	3
ART	201	History of Art I	3
ART	202	History of Art II	3
ART	250	Modern Art	3

APPROVED ELECTIVES

BA	122	Business Writing	3
BA	150	Introduction to Computer Processing	4
BA	251	Retail Merchandising	3
BA	252	Customer Relations	3
BA	253	Retailing	3
BA	284	Sales	3
BA	286	Advertising	3
BA	298	Internship	4
CP	177L	Intro to Computer Animation/Graphics	3
CP	178L	Computer Animation I	3
MMS	154	Desktop Publishing Using Word (5 weeks)	1
MMS	156	Office Management Software (5 weeks)	1
MMS	160	Introduction to the Internet (5 weeks)	1
MMS	171	Hypertext Markup Language (HTML) (5 weeks)	1
MMS	172	Web Construction Coding (5 weeks)	1
MMS	173	Beginning Photoshop (5 weeks)	1
MMS	174	Intermediate Photoshop (5 weeks)	1
MMS	175	Advanced Photoshop (5 weeks)	1
MMS	201	Hardware/Software Administration	3
MMS	255	Desktop Publishing	3
MMS	270	Macromedia Authorware	3
MMS	272	Adobe Premiere	3

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 off-campus 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, 103, 103L, 104, 104L

Term 2: CARP 111, 112, 112L, 113, 113L, 114, 114L

			Credit Hours
CARP	101	Carpentry Blueprint Reading I	4
CARP	102	Foundations Theory	1
CARP	102L	Foundations Lab	2
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

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 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 fami-

lies. 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 pre-schools. 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.

ARTS & SCIENCES COURSES REQUIRED FOR ASSOCIATE DEGREE

			Credit Hours
ART	101	Introduction to Art	3
and/or ART	151	Art of the American Southwest	3
(Select one for FS concentration; both required for ECME concentration)			
COMM	221	Interpersonal Communication Studies	3
or COMM	270	Communication Studies for Teachers	3
ENG	101	College Writing	3
ENG	102	Analytic and Argumentative Writing	3
MATH	111	Math for Elementary/Mid-school Teachers or higher	3
Social and Behavioral Science: three courses: HIST 101, 102,161 or 162; ANTH 230, 250, 237 or 238; PSCI 200; SOC 101,216 or 225			9
Biological Science, Physical Science or Astronomy			8
		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 Studies	3
or CDV	219	Marriage and Families	3
CDV		Electives (see below)	9
		Subtotal	**38**
		Total	**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	Working with Special-needs Children	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	297	Independent Study	3
CDV	299	Cooperative Education	1-3

CONCENTRATION: EARLY CHILDHOOD MULTICULTURAL EDUCATION

CDV	126	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	Emergent 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 institutions.)

CDV	212	Special Issues in Child and Family Development	3
		Subtotal	**32**
		Total	**67**

CHILD DEVELOPMENT ASSOCIATE CREDENTIAL PREPARATION

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	103	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 and 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. A $40 uniform fee covers the cost of a lab coat, health tests, name tags, clinical parking fees, and lab tests in case of needle stick exposure. Advanced placement through transfer is available for applicants who have completed other phlebotomy programs.

The program is offered in the spring term at the South Valley Campus and via distance learning. Prerequisites are:

- ❑ high school diploma or equivalent
- ☐ MATH 099 or equivalent
- ☐ ENG 099 or equivalent
- ☐ RDG 099 or equivalent
- ❑ completion of TVI Phlebotomy program within past three years or ASCP or NCA certification
- ☐ recent work experience

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.

			Credit Hours
CLA	101L	Introduction to Laboratory Technique (7 weeks)	3
CLA	102L	Basic Hematology/Chemistry (7 weeks)	3
CLA	103C	Clinical Experience (8 weeks)	5
	Total		**11**

COMMERCIAL PRINTING

Trades & Service Occupations Department

This certificate and associate degree program provides students with safety training and entry-level skills for jobs in the offset printing industry or in-plant print and duplication shops.

The commercial printing lab contains paste-up and stripping tables, process cameras, platemakers, offset duplicators, paper cutters, folders, bindery machines and other equipment used in the industry.

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

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 for the certificate includes:

Term 1: CMPR 102, 104L, 105L, 108L 109L, BA 150

Term 2: CMPR 114L, 117L, 205L, 206L, EPT 213

			Credit Hours
CMPR	102	Offset Theory I	2
CMPR	104L	Prepress Lab	2
CMPR	105L	Press and Bindery Lab	2
CMPR	108L	Basic Press Work	2
CMPR	109L	Intermediate Press Work	2
BA	150	Introduction to Computer Processing	4
CMPR	114L	Estimating	2
CMPR	117L	Advanced Prepress Lab	2

CMPR	205L	Advanced Press Work	2
CMPR	206L	Process Press Work	2
EPT	213	Occupational Safety	3
		Total required for certificate	25

ADDITIONAL DEGREE REQUIREMENTS

A suggested schedule per term includes:
Term 1: CMPR 102, 104L, 105L, 108L, 109L, EPT 213, ENG 101
Term 2: CMPR 114L, 117L, 205L, 206L, ENG 119, COMM 130 or higher
Term 3: AA 101,102, BGC 200, MATH 119 or higher
Term 4: BGC 201, 202, 203, 204, humanities/social and behavioral science elective

Business Occupations Courses

AA	101	Beginning Keyboarding	3
AA	102	Intermediate Keyboard Applications	3
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

Arts & Sciences Courses

ENG	101	College Writing	3
ENG	119	Technical Communications	3
COMM	130 or higher		3
Humanities/Social and Behavioral Science Elective			3
MATH	119 or higher		3–4
		Total required for degree	**61-62**

Optional Course

CMPR	170	Basic Commercial Printing Skills Improvement	3

COMPUTING TECHNOLOGY

Technologies Department

In 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: Business Computer Programming and Computer Animation. Graduates are prepared for jobs as entry-level business applications programmers or computer animation technicians, which can be the first steps to a career in the computer field. (The former Computer Networking Concentration has become a separate certificate/degree program in Networking Technology (see page 109). The Computing Technology program was previously named Business Computer Programming Technology.

The Technologies Department also offers the Web Technology program in collaboration with the Business Occupations Department to meet the needs of an entirely new industry and career (see page 131).

Computers currently used at TVI are the IBM ES-9000, IBM AS400, IBM microcomputers and compatibles and Silicon Graphics workstations. Mainframe, 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 mainframe environment is used to teach

three widely used business programming languages while three additional languages are taught on microcomputers. Optional courses are available.

Students entering Computing Technology courses must satisfy the prerequisites of MATH 100B, reading at a minimum of eighth-grade level 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 224-3 177 or 224-5646 and from the program director at 224-3340.

BUSINESS COMPUTER PROGRAMMING CONCENTRATION

CERTIFICATE AND DEGREE REQUIREMENTS

			Credit Hours
CP	101L	ANSI COBOL	6
CP	103	Mathematics for Computer Programmers	4
CP	105	Fundamentals of Computer Programming	6
CP	120	Mainframe/Mini Computer Operating Systems	
or CP	216L	Personal Computer Operating Systems	3
CP	150	Data Structures	3
CP	175L	Introduction to C Language Programming	3
CP	213	Database Concepts	3
CP	236	Systems Life Cycle Analysis	3
CP	281L	C++ Language Programming	3
CP	283	Overview of Network Operating System Environments	3
ACCT	103	Survey of Accounting for non-Business Majors	3
ENG	101	College Writing	3
ENG	119	Technical Communications	
or Communications (COMM) Elective			3
Social and Behavioral Sciences or Humanities Elective			3
		Total Credits for Certificate	49

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

Additional 15 Credits Selected from Courses Below

CP	111L	Advanced ANSI COBOL	6
CP	132	Introduction to Web Scripting	3
CP	135	Advanced Web Scripting	3
CP	201L	Interactive Programming Techniques	3
CP	202L	Assembler Language Programming	6
CP	214L	RPG III/400 Programming	3
CP	217L	Personal Computer Assembler Language	3
CP	218	Introduction to Client/Server Technology	3
CP	220	Advanced Database Concepts	3
CP	235	Programming in JAVA	3
CP	274L	Introduction to UNIX and WANs	3
CP	275	Advanced UNIX and WAN Administration	3
CP	278	Advanced C Language Programming	3
CP	280L	Advanced RPG III/400	3
CP	284	Introduction to Visual Basic	3
CP	287	Advanced Visual Basic w/ Client/Server Apps	3
		Total Credits for Degree	70-71

Optional Courses

CP	296	Topics	3-6
CP	297	Special Problems	3-6
CP	298	Internship	3
CP	299	Cooperative Education	3

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	Introduction to Alias/Wavefront Maya	3
CP	262	Video Editing/Post Production	3
ART	106	Drawing I	3
ART	121	Two-Dimensional Design	3
ART	122	Three-Dimensional Design	3
ELEC	217	Upgrading and Repairing PCs	3
ENG	101	College Writing	3
ENG	119	Technical Communications	
or Communications (COMM) Elective			3
MMS	173	Beginning Photoshop	1
MMS	174	Intermediate Photoshop	1
MMS	175	Advanced Photoshop	1
		Total Credits for Certificate	42

Additional Associate of Applied Science Degree Requirements

CP	103	Mathematics for Computer Programmers	4
CP	105	Fundamentals of Computer Programming	6
CP	175L	Introduction to C Language Programming	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	5
MATH	145	Introduction to Probability and Statistics	3

Additional Nine Credits Selected from Courses Below

CP	113	Survey of Computer Animation	3
CP	260L	Open GL/Open Inventor	3
CP	261L	Image Processing	3
CP	274L	Introduction to UNIX and WANs	3
CP	283	Overview of Network Operating System Environments	3
CP	284	Introduction to Visual Basic	3
ELEC	276L	Soldering Techniques (7.5 weeks)	2
BGC	202	Digital Drawing	3
BGC	203	Production Photoshop	3
BGC	204	Digital Printing Production	3
THEA	122	Introduction to Theater	3
		Total Credits for Degree	73-74

Optional Courses

CP	296	Topics	3-6
CP	297	Special Problems	3-6
CP	298	Internship	3
CP	299	Cooperative Education	3

CONSTRUCTION MANAGEMENT TECHNOLOGY

Technologies Department

Construction Management provides coursework leading to an associate of applied science degree. A Residential Superintendent Concentration is also offered; students may not 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 is defined as all the disciplines that contribute to the building process, from inception to demolition.

State-of-the-art computer applications, interfacing 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 224-3783.

COURSES REQUIRED FOR RESIDENTIAL SUPERINTENDENT VERIFICATION OF COMPLETION

			Credit Hours
Term 1			
CM	130	Construction Detailing	3
CM	132L	Construction Graphics/Engineering Methods	3
CM	171	Construction Materials and Techniques	3
CM	175	Contractor Preparation	3
CP	176	Introduction to Technology Computer Applications	4
Term 2			
CM	256	Statics	3
CM	257	Computer Estimating	3
CM	277	Construction Management, Planning and Estimating	3
CM	278	Mechanical and Electrical Blueprint Reading	2
COMM	221	Interpersonal Communication Studies	3
		Total for Verification of Completion	30

COURSES REQUIRED FOR ASSOCIATE DEGREE

Term 1			
CM	130	Construction Detailing	3
CM	132L	Construction Graphics/Engineering Methods	3
CM	171	Construction Materials and Techniques	3
CM	175	Contractor Preparation	3
CP	176	Introduction to Technology Computer Applications	4

Term 2			
CM	256	Statics	3
CM	257	Computer Estimating	3
CM	277	Construction Management, Planning and Estimating	3
CM	278	Mechanical and Electrical Blueprint Reading	2
COMM	221	Interpersonal Communication Studies	3
Term 3			
CM	261L	Construction Surveying	3
ACCT	101A	Financial Accounting 1A	3
MATH	120	Intermediate Algebra	4
EPT	213	Occupational Safety	3
Humanities/Social and Behavioral Science			3
Term 4			
CM	201	Commercial Construction Theory	2
CM	201L	Commercial Construction Lab	3
CM	263	Construction Equipment and Methods	3
BA	211	Business Law	3
ENG	101	College Writing	3
PHYS	102 or higher		3
	Total for Associate Degree		63

Optional Courses

CM	296	Topics	2-4
CM	297	Special Problems	2-4
CM	298	Internship	3
CM	299	Cooperative Education	3

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:
Term 1: CARP 101, 102, 102L, 103, 103L, 104, 104L, MATH 120 or higher
Term 2: CARP 111, 112, 112L, 113, 113L, 114, 114L, ENG 101, BA 150 or CP 176 or CSCI 101
Term 3: CM 132, 171, 175, 201, 201L, COMM 130 or higher
Term 4: CM 257, 263, 278, humanities/social and behavioral science elective, PHYS 102 or higher

Credit Hours

Required Trades & Service Occupations Courses

CARP	101	Carpentry Blueprint Reading I	4
CARP	102	Foundations Theory	1
CARP	102L	Foundations Lab	2
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	132	Construction Graphics	3
CM	171	Construction Materials and Techniques	3
CM	175	General Contractor Preparation	3
CM	201	Commercial Construction Theory	2
CM	201L	Commercial Construction Lab	3
CM	257	Computer Estimating	3
CM	263	Construction Equipments and Methods	3
CM	278	Mechanical and Electrical Blueprint Reading	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 & Sciences Courses

COMM	130 or higher		3
ENG	101	College Writing	3
Humanities/Social and Behavioral Science Elective			3
MATH	120 or higher		3-4
PHYS	102 or higher		3
	Total		67-68

ELECTRICAL CONCENTRATION

A suggested schedule per term includes:
Term 1: ELTR 101, 102, 103L, 104L, MATH 120 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	120 or higher		3-4
PHYS	102 or higher		3
	Total		**71-72**

CONTINUOUS QUALITY IMPROVEMENT (CQI)

Business Occupations Department

Continuous Quality Improvement (CQI) courses (BA 101, 102, 103, 104, 105, 106) are designed to help improve processes and change the 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 option for the associate of applied science degree in Business Administration.

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

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-3823.

COSMETOLOGY

Trades & Service Occupations Department

Cosmetology is a personal service occupation. The Cosmetology 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 areas: 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.

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.

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, ENG 101

Term 2: COS 112, 112L, 113L, 114L, 115L, 116L, 117L, BIO 136, COMM 221, BA 150 or CP 176 or CSCI 101

Term 3: COS 201L, 202L, 203L, 204L, 205L, MATH 119

Term 4: COS 211, 212, 212L 213, 213L, humanities/social and behavioral science elective

			Credit Hours
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	4
COS	203L	Hair Coloring Lab III	1
COS	204L	Hairstyling Lab III	2
COS	205L	Facials/Manicuring/Pedicuring Lab III	5
COS	211	State Laws/Regulations	3
COS	212	Salon Operation Theory	1
COS	212L	Salon Operation Lab (Externship)	1
COS	213	Advanced Salon Theory	2
COS	213L	Advanced Salon Lab	6

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
BIO	136	Human Anatomy and Physiology	3
COMM	221	Interpersonal Communication Studies	3
MATH	119	Methods of Problem Solving	4
Humanities/Social		Science Elective	3
	Total		72

COURT REPORTING

Business Occupations Department

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

Court reporters are skilled professionals with machine shorthand and transcription skills who produce verbatim transcripts of trials, hearings and depositions. Reporters are employed in court proceedings, depositions, corporate meetings, arbitration hearings, conventions, and legislative sessions. Court reporters also provide real-time and closed-captioning services.

Any person wishing to enroll in the Court Reporting program must have completed high school or have a General Education Development (GED) high school equivalency diploma.

Students enrolled in machine shorthand courses are responsible for having a stenotype machine (manual or electric). Students must own a stenotype machine prior to enrolling in CR 103, Machine Shorthand I.

AA 101 and AA 102 or 35 wpm typing speed on a five-minute timing are prerequisites to CR 103.

CR 104 is an open-exit course; CR 2 10, CR 220 and CR 230 are open-entry, open-exit courses. Students may advance to the next course upon reaching the required speed level.

CR 104, CR 2 10, CR 220 and CR 230 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.

One of the goals of the Court Reporting certificate and associate of applied science degree program is to prepare students to pass the New Mexico Court Reporting certification test.

To graduate from the Court Reporting program, students must pass three five-minute tests on literary material dictated at 190 words per minute with 96 percent accuracy, three five-minute tests on jury charge dictated at 200 wpm with 96 percent accuracy, and three five-minute tests on testimony at 225 wpm with 96 percent accuracy and a transcription rate of 20 wpm. Students must also keyboard at the rate of 60 net wpm with no more than five errors on two five-minute timed writings from unfamiliar material. Students must also complete a Court Reporting internship with a minimum of 75 clock hours of practical experience under the supervision of a certified shorthand reporter. A minimum of 40 of those hours shall be spent in actual writing time.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program chair at 224-3847.

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

Term 1: BA 121, 150, CR 103, 121
Term 2: BA 131[1], CR 104, 105, 132
Term 3: CR 210, 240
Term 4: CR 220, 250
Term 5: CR 230, 260, 298

[1]Required for certificate only

			Credit Hours
BA	121	Business English	3
*BA	131	Business Interpersonal Skills (7.5 weeks)	2
or *COMM	130 or 221 or 232 or 240		3
BA	150	Introduction to Computer Processing	
or CSCI	101	Computer Literacy	4
CR	103	Machine Shorthand I	7
CR	104	Machine Shorthand II	7
CR	105	Keyboard Skill-building	2
CR	121	Introduction to Court Reporting	3
CR	132	Medical Terminology/Anatomy	3
CR	210	Machine Shorthand III	8
CR	220	Machine Shorthand IV	8
CR	230	Machine Shorthand V	8
CR	240	Legal Terminology	3
CR	250	Computer-aided Transcription	3
CR	260	Court Reporting Procedures	3
CR	298	Internship	2
Approved Elective			1-4
		Total Required for Certificate	**67-71**

*One course required for certificate; both required for associate degree.

Courses Required for Degree

COMM	130 or 221 or 232 or 240		3
ENG	101	College Writing	3
MATH	120	Intermediate Algebra or higher	
or biological and physical science elective			3-4
Social Science or Behavioral Science Elective			3
Arts and Sciences Elective			3
		Total Required for Degree	**83-87**

[1]Required for certificate only

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
CR	122	Word Power (7.5 weeks) 1
CR	123	Punctuation for Court Reporters 3
CR	251	Stenotranscription 3
CR	252	Medical/Legal Stenotranscription 2
CR	253	Litigation Support (7.5 weeks) 2
CR	270	Speed-building/Test Preparation 3
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
MMS	150	Microsoft Windows (5 weeks)	1
MMS	151	DOS Fundamentals (5 weeks)	1
MMS	160	Introduction to Internet (5 weeks)	1

*May be taken at any time when prerequisites are met.

CRIMINAL JUSTICE

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). 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.

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 224-3 177 or 224-5646 and from the director at 224-3762.

A suggested schedule per term includes:

Term 1: CJ 101, 102, 103 or 104, 107, 108, ENG 101
Term 2: CJ 111 or 116, 112, 109 or 113, 117, 118, FITT 170
Term 3: COMM 221, ENG 119, MATH 120, PSY 105, SOC 101, BA 150 or CP 176 or CSCI 101
Term 4: SOC 111, 211, 212, SOC 214 or PSY 271, SOC 215, 216

Credit Hours

Required Core Courses

CJ	101	Criminal Law	3
CJ	102	Juvenile Law and Procedure	3
CJ	103	Probation and Parole	
*or CJ	104	Patrol Procedures	3
CJ	107	Criminal Procedure	3
CJ	108	Community-Oriented Policing	3
*CJ	111	Traffic Investigation and Enforcement	
or CJ	116	Correctional Services	3
CJ	112	Criminal Investigation	3
CJ	113	Organized and White Collar Crime	
or CJ	109	Introduction to Security Services	3
CJ	118	Report Writing	3
CJ	117	Public Policies and Strategies	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
ENG	119	Technical Communications	3
MATH	120	Intermediate Algebra	4

PSY	105	Introduction to Psychology	3
SOC	101	Introduction to Sociology	3
SOC	111	Criminal Justice System	3
SOC	211	Social Problems	3
SOC	212	Juvenile Delinquency	3
SOC	214	Sociology of Corrections	
or PSY	271	Social Psychology	3
SOC	215	Criminology	3
SOC	216	Ethnic and Minority Groups	3
	Total		72

CRITICAL CARE NURSE INTERNSHIP

Health Occupations Department

These specialized courses prepare RNs 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 $15 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 224-3 177 or 224-5646 and from the Nursing Programs office at 224-4 14 1.

			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 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

			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 and Behavioral Science Elective			3
MATH	119 or higher		3-4
NUTR	120	Personal and Practical Nutrition	3
	Total		**70-71**

CUSTOMER SERVICE REPRESENTATIVE

Business Occupations Department

The Customer Service Representative courses are designed to improve skills in delivering effective customer service in varying business environments. Students acquire basic keyboarding and interpersonal skills used in a customer service setting. ENG 099 and MATH 099 or equivalent are required for entry into these courses.

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

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-3819.

			Credit Hours
AA	101	Beginning Keyboarding	3
AA	170	Business Telephone Techniques (5 weeks)	1
AA	171	Working with the Challenging Customer (5 weeks)	1
BA	117	Character Counts (5 weeks)	1
BA	131	Business Interpersonal Skills (7.5 weeks)	2
BA	252	Customer Relations	3
MMS	150	Microsoft Windows (5 weeks)	1
	Total		**12**

Optional Courses#

AA	102	Keyboard Applications	3
AA	105	Keyboard Skill-building	2
AA	173	Time Management (5 weeks)	1
AA	180	Work-site Learning	1

#May be taken at any time when prerequisites are met.

DATA ENTRY

Business Occupations Department

The wide use of computers in business and industry today has created a number of job opportunities for individuals with data entry skills.

The Data Entry course (prefix DE; see prerequisites) offers training designed to prepare students for entry-level positions in many areas of employment. Application for a verification of completion may be made with the program director upon successful completion of the course.

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 program director at 224-3819.

DESIGN DRAFTING ENGINEERING TECHNOLOGY

Technologies Department

Design Drafting Engineering Technology is a complex 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 224-3 177 or 224-5646 and from the program chair at 224-3353.

			Credit Hours
DDET	102L	Manufacturing Methods	3
DDET	106L	Basic CADD	3
DDET	111L	Mechanical Detailing	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	175L	Intro to C Language Programming	
or CP	284	Intro to Visual Basic	3
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	5
MATH	123	Trigonometry	2
PHYS	151/153L	General Physics I/Lab	5
PHYS	152/154L	Physics II/Lab	5
or CHEM	121/122L	General Chemistry I/Lab	4
		Total Credits for Degree	67-70

Optional Courses

DDET	104L	Introduction to Technical Drafting	4
DDET	116L	Basic Electronic Drafting	3
DDET	284	Geometric Dimensioning and Tolerancing	3
DDET	296	Topics	2-5
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

DIESEL EQUIPMENT TECHNOLOGY

Trades & Service Occupations Department

This 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 224-3 177 or 224-5646 and from the director at 224-37 18.

A suggested schedule per term includes:
Term 1: DETC 103, 103L, 104, 104L, 105, 105L
Term 2: DETC 111, 111L, 112, 112L, 113, 113L, 115
Term 3: DETC 201, 201L, 202, 202L, 203, 203L, EPT 213

			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
DETC	115	Diesel Electronics	3
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
EPT	213	Occupational Safety	3
	Total		37

E-COMMERCE

Business Occupations Department

The Internet has created a new, electronic, global economy. Retail and wholesale business processes are being transformed. E-Commerce is a passport to managing information in a virtual organization and conducting online business in a global economy. The E-Commerce program provides opportunities to integrate business knowledge and skills with Internet-based commerce (retail and wholesale) for developing, conducting and managing a business in a virtual environment. Students focus on understanding, creating, managing and maintaining online business processes which include marketing, sales, customer service, payment systems, database design and management, business law, cash and credit security, purchasing, knowledge management and web-site design.

Information about this program is available from the Advisement Centers at 224-3 177 or 224-5646 and from the program director at 224-3819.

A suggested schedule per term is listed below:

Term 1: BA 113, 121, 150, MMS 150,160, ENG 101

Term 2: BA 122, ECM 101, 102, 120, MMS 171, 172, 176, 177

Term 3: ECM 220, 223, 224, MMS 159, 168, 276

Term 4: BA 133, ECM 226, MMS 169, COMM 110

			Credit Hours
BA	113	Introduction to Business	3
BA	121	Business English	3
BA	122	Business Writing	3
BA	150	Introduction to Computer Processing	4
COMM	110	Mass Media and Society	3
ECM	101	Web Accounting	3
ECM	102	Internet Customer Service	3
ECM	120	Cyber Sales	3
ECM	220	Web Marketing	3
ECM	223	Online Payment Systems	3
ECM	224	Knowledge Management	3
ENG	101	College Writing	3
MMS	150	Microsoft Windows (5 weeks)	1
MMS	159	Access Fundamentals (5 weeks)	1
MMS	160	Introduction to Internet (5 weeks)	1
MMS	168	Intermediate Access (5 weeks)	1
MMS	171	Hypertext Markup Language (HTML) (5 weeks)	1
MMS	172	Web Construction Coding (5 weeks)	1
MMS	176	Introduction to Internet Commerce (5 weeks)	1
MMS	177	Extensible Markup Language (XML) (5 weeks)	1
MMS	276	Web-site Design	3
		Total Required for Certificate	**48**

Courses Required for Degree

BA	133	Principles of Management	3
ECM	226	Online Business Law	3
MATH	119	Methods of Problem Solving or higher level math	4
MMS	169	Advanced Access (5 weeks)	1
PHIL	245B	Business Ethics	3
Social or Behavioral Science Elective			3
		Total Required for Degree	**65**

ELECTRICAL TRADES

Trades & Service Occupations Department

The 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). 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 on-the-job experience in electrical installation. Electrical safety, circuitry, residential electrical materials, residential wiring, residential 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 224-3 177 or 224-5646 and from the director at 224-37 16.

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

			Credit Hours
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	Blueprint Reading I	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

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.

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

The Electronics Engineering Technology associate

degree program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET).

EET 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 224-3 177 or 224-5646 and from the program chair at 224-59 19.

			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	3-5
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 electro-mechanical and computer applications. To receive a certificate or an associate of applied science degree, the student must complete the occupational core requirements and a concentration in Process Control or another concentration chosen from a list of approved classes, plus additional Arts & Sciences requirements.

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

Laboratory facilities contain modern equipment for testing, troubleshooting, calibrating, analyzing and designing electronic systems. Such systems include communications equipment, computers, electronic instruments and electro-mechanical equipment.

Students entering Electronics Technology courses must meet the prerequisites of MATH 100B or equivalent

on placement test, reading at a minimum of eighth-grade level, and CP 176 or equivalent.

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

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

CERTIFICATE AND DEGREE CORE REQUIREMENTS

			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	5
ELEC	105L	Digital Circuits	4
ELEC	111L	Introduction to Photonics	4
ELEC	114A	Semiconductor Devices A	3
and ELEC	114B	Semiconductor Devices B	3
or ELEC	114L	Semiconductor Devices	6
ELEC	118L	Electromechanical Devices	6
ELEC	203L	Introduction to Microprocessors	6
ELEC	205L	Analog Circuits	6
ELEC	214L	Troubleshooting Techniques	3
ENG	101	College Writing	3
ENG	119	Technical Communications	3
Humanities or Social Science Elective			3
		Total Credits for Certificate	57

ADDITIONAL DEGREE REQUIREMENTS (CHOOSE ONE CONCENTRATION)

GENERAL ELECTRONICS CONCENTRATION: CHOOSE 18 CREDITS FROM AMONG THESE:

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
CP	282	Networking Topologies/NOS Environments	3
CP	283	Overview of NOS Environments	3
CP	285	Troubleshooting Networks	3
LEOT	205L	Introduction to Laser Systems	4
LEOT	206	Optics	6
LEOT	217L	Advanced Laser Systems with Applications	6
PC	212L	Vacuum Systems (7.5 weeks)	2
Technical Elective			3

PROCESS CONTROL CONCENTRATION

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 (7.5 weeks)	2
PC	212L	Vacuum Systems (7.5 weeks)	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 1 Theory/Lab	3
Technical Elective			3

Additional Arts & Sciences Degree Requirements

CHEM	111/112L	Introduction to Chemistry/Lab	4
or CHEM	121/121L	General Chemistry/Lab	4
or PHYS	151/151L	Physics I/Lab	5
or PHYS	160	General Physics	4
MATH Electives (see list below)			3-4
Total Credits for Degree			**82-84**

Math Electives

MATH	121	College Algebra	3
MATH	145	Introduction to Probability and Statistics	3
MATH	150	Advanced Algebra	4
MATH	162	Calculus I	4
MATH	180	Elements of Calculus	3

Technical Electives

CP	175L	C Language Programming	3
CP	177L	Introduction to Computer Animation/Graphics	3
CP	178L	Computer Animation I	3
CP	274L	Introduction to the UNIX Operating System	3
ELEC	276L	Soldering Techniques (7.5 weeks)	2
ELEC	277L	Advanced Soldering Techniques (7.5 weeks)	2
ELEC	279	Electronics Refresher	3
ELEC	282	Pulsed Power	3

Optional Courses

ELEC	296	Topics	2-8
ELEC	297	Special Problems	2-8
ELEC	298	Internship	3
ELEC	299	Cooperative Education	3

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 in the fall and spring terms. Participants pay the TVI registration fee, a $40 uniform fee and a $15 supply fee and purchase a textbook. The uniform fee covers the cost of the EMS academy course syllabus and certification.

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.

			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. Application for a verification of completion may be made with the program director upon successful completion of the course.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-3823.

ENVIRONMENTAL TECHNOLOGY

Trades & Service Occupations Department

The Environmental Technology associate of applied science degree program provides basic classroom instruction in the diverse field of environmental and occupational safety from a health and safety perspective. The curriculum also provides coursework designed to upgrade skills of individuals already employed in the field.

The student receives a broad, general understanding of environmental problems, as well as physical science instruction, in preparation for entry-level jobs. Instruction is provided in biology, chemistry, physics, ecology, environmental legislation, regulation compliance and abatement. The program addresses key areas of environmental protection including biological and hazardous waste, water quality protection, air quality protection, soil, domestic and industrial waste control, workplace safety, energy management and recycling.

At least 12 students must enroll in EPT courses or the course will be canceled.

Information about this program is available from the Advisement Centers at 224-3 177 or 224-5646 and from the director at 224-3762.

A suggested schedule per term includes:

Term 1: EPT 102, 111, 213, CHEM 111/112L or 121/121L, ENG 101, MATH elective

Term 2: EPT 112, 131, 173, BIO 111, PHYS 102, MATH elective

Term 3: EPT 211L, 215, BIO 121/121L or 123/124L, BA 150 or CP 176 or CSCI 101

Term 4: EPT 212, 232, 233, 299, CHEM 212, ENG 119

			Credit Hours
EPT	102	Emergency Response	3
EPT	111	Environmental Technology I	4
EPT	112	Hazards and Protection Training	3
EPT	173	Water Quality Protection	3
EPT	299	Cooperative Education or approved elective	3
EPT	211L	Environmental Technology II/Lab	4
EPT	212	Energy and Waste Management	3
EPT	213	Occupational Safety	3
EPT	215	Environmental Instrumentation and Analysis	3
EPT	131	Materials Categorization and Analysis	4
EPT	232	Air Quality Protection	1
EPT	233	Environmental Bioremediation	4

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	111	Environmental Science	3
BIO	121/121	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	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		78-79

Optional Courses

EPT	170	Introduction to OSHA Compliance	3
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	177	Business Aspects of Environmental Technology	3
EPT	178	Industrial Hygiene for Environmental Technicians	3
EPT	179	Sampling Design	3
EPT	270	Air Pollution Meteorology	3
EPT	271	Ambient Air Monitoring and the Clean Air Act	3

FINANCIAL SERVICES

Business Occupations Department

The Financial Services program prepares students for entry-level positions and job advancement as tellers, operations supervisors, customer assistants, financial service representatives and banking support staff.

This program was previously named Banking.

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

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

Term 1: ACCT 111, BA 113, 121, 150, BANK 101
Term 2: ACCT 101, BA 131,222, BANK 103 or BA 211
Term 3: ACCT 102, BA 133, 252, BANK 105
Term 4: BA 284, BANK 109, 111, Financial Services elective

CERTIFICATE AND DEGREE REQUIREMENTS

			Credit Hours
ACCT	101	Financial Accounting I	
or ACCT 101A and ACCT 101B			6

ACCT	102	Financial Accounting II	
or ACCT 102A and ACCT 102B			6
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
BA	133	Principles of Management	3
BA	150	Introduction to Computer Processing	4
BA	222	Principles of Marketing	3
BA	252	Customer Relations	3
BA	284	Sales	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	Elective		3
	Total Required for Certificate		53

Additional Degree Requirements

Approved	Elective(s)		3

Courses Required for Degree

COMM	130 or 221 or 232 or 240		3
ECON	200	Macroeconomics	3
ENG	101	College Writing	3
ENG	119	Technical Communications	
or ENG	102	Analytical and Argumentative Writing	3
MATH	145	Introduction to Probability and Statistics	3
	Total Required for Degree		71

APPROVED ELECTIVES

ACCT	254	Electronic Spreadsheets	3
ACCT	240	Tax Accounting I	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	113	Bank Simulator	1-3
BANK	115	Commercial Lending	3
BANK	296	Financial Services Topics	1-3
BANK	298	Internship	4
BANK	299	Cooperative Education	4
PHIL	245B	Business Ethics	3

FIRE SCIENCE

Trades & Service Occupations Department

The Fire Science program offers career preparation for students with a strong interest in the fields 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 fire protection services, industrial fire protection, hazardous materials, insurance services, fire protection systems service and fire prevention. This program maintains a close working relationship with area providers of fire protection and emergency 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 224-3 177 or 224-5646 and from the director at 224-3762.

A suggested schedule per term includes:

Term 1: FS 102, 103, FITT 170, EPT 213, 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

			Credit Hours
FITT	170	Physical Fitness 1	1
EPT	213	Occupational Safety	3
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	7
*FS	212	Fire Investigation	3
*FS	213	Industrial Fire Protection	3
*FS	214	Facilities Inspection	3
*FS	215	Tactics 1	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	120	Intermediate Algebra	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**

FITNESS TECHNICIAN

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.

A new class begins every fall term.

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 224-3 177 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

			Credit Hours
FITT	209	Introduction to Exercise Physiology	3
FITT	211	The Business of Personal Fitness Training	3
FITT	225	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	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	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

FOOD SERVICE MANAGEMENT

Business Occupations Department

The Food Service Management 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 and sanitation procedures are stressed.

Classroom instruction includes theory in human relations, supervision and business practices. Cooperative education is available with the supervision of the instructor.

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

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-3823.

			Credit Hours
BA	150	Introduction to Computer Processing	4
FSMG	101A	Food Sanitation Principles	2
FSMG	101B	Applied Food Safety	1
HT	132	Hotel/Motel Human Resources Management	3
HT	164	Hotel/Motel Food and Beverage Management	3
HT	299	Cooperative Education	4
	Total		**17**

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 phlebotomy. Students learn sterile techniques, urinary catherizations, basic respiratory care and basic physical therapy skills. They also learn to transcribe doctors' written orders, order supplies and communicate with patients, families and healthcare personnel. During phlebotomy students learn to draw blood, collect specimens and prepare and maintain equipment.

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

There is a $40 uniform fee that includes a lab coat, bandage scissors, name tag, 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:

0 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

0 successful completion of NA skill exam

- ❑ current CPR certification

•I 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.

			Credit Hours
HCT	101/101L	HCT Phlebotomy Skills and Laboratory	2
HCT	102/102L	HCT Health Unit Coordinator Skills and Laboratory	2
HCT	103/103L	HCT Special Skills Theory and Laboratory	4
HCT	110C	HCT Phlebotomy Skills Clinical	2
HCT	120C	HCT Multi-skilled Clinical	2
	Total		**12**

HEALTH UNIT CLERK

Health Occupations Department

The Health Unit Clerk 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 15-week program has nine weeks of classroom theory and six weeks of clinical practice in local hospitals. It is offered each term at the South Valley campus.

Enrollment in the Health Unit Clerk program requires a high school diploma or equivalent and a passing score on the reading, English and math placement tests. Students must also have good written and oral communication skills because they perform a pivotal role with all hospital personnel. There is a $30 uniform fee which covers the cost of a uniform top, hospital parking permits, name tag and health tests. Neutral-colored 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.

			Credit Hours
HUC	101L	Health Unit Clerk Theory and Lab	8
HUC	131C	Health Unit Clerk Clinical Practice	4
	Total		12

HOSPITALITY AND TOURISM

Business Occupations Department

The Hospitality and Tourism 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 program provides a foundation in front office procedures, accounting, food and beverage management, basic computer skills and general business.

The four-term certificate program requires nine of the 12 courses needed for the American Hotel & Motel Association (AH&MA) Educational Institute's five-, eight- or twelve-course packages, and curricular options developed by industry leaders link students with the global hospitality industry. This is an additional credentialing process. Students interested in receiving the AH&MA Educational Institute certificate should see 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 224-3823.

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

Term 1: ACCT 101A, BA 113, 121, 131, 150
Term 2: BA 122 or ENG 101, BA 133, HT 101,106, 108
Term 3: BA 222, HT 124, 128, 132, 161
Term 4: HT 206, 221, Hospitality and Tourism electives (6-8 credits)

			Credit Hours
ACCT	101A	Financial Accounting 101A	3
BA	113	Introduction to Business	3
BA	121	Business English	3
*BA	122	Business Writing	
or *ENG	101	College Writing	3
BA	131	Business Interpersonal Skills (7.5 weeks)	2
BA	133	Principles of Management	3

BA	150	Introduction to Computer Processing	4
BA	222	Principles of Marketing	3
HT	101	Introduction to Hospitality Industry	3
HT	106	Front Office Procedures	3
HT	108	Hospitality Supervision	3
HT	124	Managing Quality in the Hospitality Industry	3
HT	128	Hotel/Motel Housekeeping Management	3
HT	132	Hotel/Motel Human Resources Management	3
HT	161	Hotel/Motel Food Beverage Management	3
HT	206	Hospitality Industry Computer Systems	3
HT	221	Hospitality Law	3
Hospitality and Tourism Approved Electives			6-8
		Total Required for Certificate	57-59

*One course required for certificate; both required for associate of applied science degree.

Courses Required for Degree

COMM	130 or 221 or 232 or 240		3
ECON	200	Macroeconomics or higher	3
ENG	101	College Writing	3
MATH	119	Methods of Problem Solving or higher	3
PHIL	245B	Business Ethics	3
		Subtotal Required for Degree	72-74

APPROVED ELECTIVES*

BA	252	Customer Relations	3
FSMG	101A	Food Sanitation Principles	2
FSMG	101B	Applied Food Safety	1
HT	121	Hotel/Motel Organization and Administration	3
HT	126	Hotel/Motel Facilities Management	3
HT	130	Resort Management	3
HT	134	Hospitality Energy and Water Management	3
HT	136	Hospitality Industry Training	3
HT	138	Hospitality Industry Engineering System	3
HT	141	Marketing of Hospitality Services	3
HT	144	Hospitality and Sales Marketing	3
HT	146	Convention Management and Service	3
HT	164	Hotel/Motel Food and Beverage	3
HT	166	Quality Sanitation Management	3
HT	168	Food and Beverage Controls	3
HT	170	Food Production Principles	3
HT	172	Hospitality Purchasing Management	3
HT	201	Financial Accounting for Hospitality Industry	3
HT	204	Managerial Accounting for Hospitality Industry	3
HT	224	Hotel/Motel Law	3
HT	226	Hotel/Motel Security Management	3
HT	296	Topics Course	1-3
HT	298	Internship	4
HT	299	Cooperative Education	4
IB	101	Introduction to International Business	3
Computer Courses			3-4

*Not all elective courses are offered every term.

INTERNATIONAL BUSINESS

Business Occupations Department

The International Business program combines general business skills with contemporary international business skills. Students are prepared for the constantly changing international business environment. Graduates of this program should be able to work effectively in firms and government agencies whose operations center around international trade and to engage in international entrepreneurial activities.

The program provides a foundation in written and verbal communications, accounting principles, basic computer skills and international business.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-3823.

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

Term 1: ACCT 101, 111, BA 121, IB 101, foreign language

Term 2: ACCT 102, BA 150, ENTR 102, GEOG 102, IB 201, foreign language

Term 3: GEOG 201, IB 202, 203, 205, foreign language

			Credit Hours
ACCT	101	Financial Accounting I	
or ACCT	101A and 101B		6
ACCT	102	Financial Accounting II	
or ACCT	102A and 102B		6
ACCT	111	Business Math	3
BA	121	Business English	3
BA	150	Introduction to Computer Processing	4
ENTR	102	Entrepreneurship in a Global Setting	3
GEOG	102	Human Geography	
or COMM	291	Intercultural Communication Studies	3
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*			9-12
		Total Required for Certificate	55-58

*Various languages are acceptable.

Courses Required for Degree

ENG	101	College Writing	3
ENG	119	Technical Writing	3
MATH	119	Methods of Problem Solving	3
or MATH	120	Intermediate Algebra	4
MATH	145	Probability and Statistics	3
PHIL	245B	Business Ethics	3
		Total Required for Degree	70-74

Optional Courses#

BA	211	Business Law	3
BA	299	Cooperative Education	4

#May be taken at any time when prerequisites are met.

JUDICIAL STUDIES

Business Occupations Department

The Judicial Studies 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. Not all elective courses are offered each term.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3845.

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 120, BA 121 or COMM 232, two electives, JUD 298 or 299

			Credit Hours
ACCT	111	Business Math	3
or MATH	119	Methods of Problem Solving	4
or MATH	120	Intermediate Algebra (or higher)	3-4
BA	121	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 Computer Processing	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
	Subtotal		**33-34**

Students complete three credits from each of the following three categories:

Approved Legal Electives

BA	211	Business Law	
or LAS	102	Business Organizations	3
CJ	107	Criminal Procedure	
or *LAS	206	Criminal Litigation	3
LAS	101	Introduction to Legal Assistant Studies	3
*LAS	124	Legal Research and Writing I	3
*LAS	201	Contract Law	3
*LAS	203	Civil Litigation	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

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
*LAS	236	Employment Law	3
#PSY	271	Social Psychology	3
SPAN	296	Topics in Spanish	1-3

*Due to prerequisites, prior approval of appropriate program director is required.
#Prerequisites must be met.

LEGAL ASSISTANT STUDIES

Business Occupations Department

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

The program is approved by the American Bar Association.

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 legal assistant. The ethical issues inherent in the practice of the profession are stressed.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the director at 224-3845.

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

Term 1: LAS 101, 102, 123, ENG 101
Term 2: LAS 111,124, ENG 102, MMS 134 or 135, PSY 105
Term 3: LAS 201, 203 or 206, 204, PHIL 156, MATH 119
Term 4: LAS 224, 230 or 243, 231, COMM 221 or 225 or 240
Term 5: LAS 221,223 or 225 or 294,298 or 299, three-credit elective course

			Credit Hours
COMM	221	Interpersonal Communication Studies	
or COMM	225	Small-group Communication Studies	
or COMM	240	Organizational Communication Studies	3
MMS	134	WordPerfect for Windows	
or MMS	135	Microsoft Word for Windows	3
ENG	101	College Writing	3
ENG	102	Analytic and Argumentative Writing	3
LAS	101	Introduction to Legal Assistant Studies	3
LAS	102	Business Organizations	3
LAS	111	American Law and Ethics	3
LAS	123	Torts	3
LAS	124	Legal Research and Writing I	3

LAS	201	Contract Law	3
LAS	203	Civil Litigation	
or LAS	206	Criminal Litigation	3
LAS	204	Legal Research and Writing II	3
LAS	221	Wills, Probate and Estate Planning	3
LAS	223	Domestic Relations	
or LAS	225	Constitutional Law	
or LAS	294	Mediation	3
LAS	224	Evidence	3
LAS	230	Civil Litigation II	
or LAS	243	Criminal Litigation II	3
LAS	231	Computers in Law Practice	3
LAS	298	Internship	
or LAS	299	Cooperative Education	4
Approved Elective			3
MATH	119	Methods of Problem Solving or higher math course	4
PHIL	156	Logic and Critical Thinking	3
PSY	105	Introduction to Psychology	3
	Total		68

APPROVED ELECTIVES

*ACCT	101	Financial Accounting I	
or *ACCT	101A and *ACCT 101B		6
JUD	101	Introduction to Judicial Studies	3
JUD	102	Introduction to Court Operations and Ethics	1
MMS	151	DOS Fundamentals (5 weeks)	1
MMS	154	Desktop Publishing Using Word (5 weeks)	1
MMS	156	Office Management Software (5 weeks)	1
MMS	158	Excel Fundamentals (5 weeks)	1
MMS	159	Access Fundamentals (5 weeks)	1
MMS	160	Introduction to Internet (5 weeks)	1
MMS	257	Presentation Graphics	3
LAS	211	Real Estate Law for Legal Assistants	3
LAS	223	Domestic Relations	3
LAS	225	Constitutional Law	3
LAS	232	Personal Injury Law	3
LAS	233	Law Office Management	3
LAS	234	Administrative Law	3
LAS	236	Employment Law	3
LAS	242	Native American Law	3
LAS	244	Social Security Law (5 weeks)	1
LAS	245	Bankruptcy Law (5 weeks)	1
LAS	294	Mediation	3
LAS	295	Public Defender	3
LAS	296	Topics Course	3
SSKL	211	Employment Skills-General (15 hours)	1

*Pre- or corequisite: ACCT 111 or higher math or permission of the program director

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.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from Arts & Sciences at 224-3561.

Discipline	Course Prefix	Credit Hours
Communications (must include ENG 102 and one COMM course)		9
English	ENG (writing): 101, 102, 119, 212, 219, 220, 221, 222	
Journalism	JOUR	
Communication Studies	COMM 221 or 130	
Computer Science	CSCI 101	3-4
Social and Behavioral Sciences (must include at least two disciplines)		9
Anthropology	ANTH	
Economics	ECON	
Geography	GEOG	
Political Science	PSCI	
Psychology	PSY	
Sociology	SOC	
Biological and Physical Sciences (must include one lab course)		7
Astronomy	ASTR	
Biology	BIO	
Chemistry	CHEM	
Physics	PHYS	
Humanities (must include at least two disciplines)		9
Cultural Studies	CST	
History	HIST	
Humanities	HUM	
Literature	ENG (literature)	
Philosophy	PHIL	
Religious Studies	RLGN	
Mathematics (one course numbered above 120 except MATH 215)		3
Fine Arts and Foreign Languages (must include at least two disciplines; no more than three credit hours of applied or studio art)		9
Art	ART	
Music	MUS	
French	FREN	
Spanish	SPAN	
Theater	THEA	
Electives (any Arts & Sciences course, including General Honors; no more than one credit hour of physical education)		13-14
Total		**64**

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 $20 course 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 is offered once a year in the summer term on the Main Campus and twice a year, spring and summer, through Distance Learning. Enrollment is limited to 20 persons. 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 224-4125.

			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 224-3 177 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

			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 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

MANUFACTURED HOUSING SET-UP

Trades & Service Occupations Department

The Manufactured Housing Set-up certificate program is designed to meet the needs of TVI District employers as well as statewide employers.

The program is housed on TVI's Main Campus. Classes may meet at off-campus locations when announced by the instructor; students are required to provide their own transportation.

The program covers theory and/or lab in Manufactured Housing Division code, safety, set-up, electrical, plumbing, customer service, quality assurance, warranty service, appliance service and heating and cooling.

Students enrolled in this program may not be eligible for 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 224-3762.

			Credit Hours
MH	101	Manufactured Housing Customer Service	2
MH	102	Manufactured Housing Code and Safety	2
MH	103L	Manufactured Housing Electrical	1
MH	104	Manufactured Housing Plumbing	2
MH	105	Manufactured Housing Set-up	3
MH	106	Manufactured Housing Appliance Service	2
	Total		**12**

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, wafer processing equipment and electro-mechanical 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, reading at a minimum of eighth-grade level 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 224-3340.

CERTIFICATE PROGRAM REQUIREMENTS

			Credit Hours
ELEC	104	Electronics Mathematics	5
ENG	101	College Writing	3
*CP	176	Introduction to Technology Computer Applications	3
*MT	105	Manufacturing Concepts	4
MT	205	Applied Science	4
MT	281	Statistical Controls	3
Communications Elective			3
Humanities or Social Science Elective			3
		Total Credits for Certificate	28

*A student can receive a Manufacturing Skills Verification of Completion upon completion of CP 176 and MT 105.

DEGREE PROGRAM

Prerequisites

CP	176	Introduction to Technology Computer Applications	3
ELEC	104	Electronics Mathematics	5
or MATH	120	Intermediate Algebra	4

Degree Requirements

MT	105	Manufacturing Concepts	4
MT	205	Applied Science	4
MT	281	Statistical Controls	3
ELEC	103L	Electronics Fundamentals	8
ELEC	105L	Digital Circuits	4
ELEC	118L	Electromechanical Devices	6
ENG	101	College Writing	3
ENG	119	Technical Communications	3
MATH	121	College Algebra	3
CHEM	121/121L	General Chemistry I	4
PC	212L	Vacuum Systems (7.5 weeks)	2
*Communication Electives			6
Humanities or Social Science Elective			3
		Total Credit Hours	53

*Not required for Facilities Maintenance concentration
*Only three credit hours are required for Facilities Maintenance concentration

FACILITIES MAINTENANCE CONCENTRATION

ACHR	133	Refrigerant Management	2
ACHR	134	Motors and Controls	2
ACHR	151	Air Conditioning	2
ACHR	152	Air Conditioning Control	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
ELTR	212	Programmable Logic Controller	4
ELTR	213L	PLC Installation and Operation	3
CM	278	Mechanical and Electrical Blueprint Reading	2
PLMB	102	Plumbing Systems Theory	1
PLMB	102L	Plumbing Systems Lab	2
	Credit Hours		**28**

SEMICONDUCTOR MANUFACTURING CONCENTRATION

ELEC	114L	Semiconductor Devices	7
PC	201	Electromechanical Systems	3
PC	211	Power RF (7.5 weeks)	2
SMT	201/201L	Semiconductor Manufacturing Technology I Theory/Lab	3
SMT	211/211L	Semiconductor Manufacturing Technology II Theory/Lab	3
Technical Elective			3
	Credit Hours		**21**

GENERAL MANUFACTURING CONCENTRATION

PC	203	PLC Theory and Applications (7.5 weeks)	2
MATT	102	MATT 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
DDET	106L	Basic CADD	3
	Credit Hours		**21**
	Total Credits Required for Degree		**73-81**

Communication Electives

COMM	221	Interpersonal Communication Studies	3
COMM	223	Introduction to Nonverbal Communication Studies	3
COMM	225	Small-group Communication Studies	3
COMM	232	Business and Professional Communication Studies	3

Technologies Electives

CP	175L	C Language Programming	3
MT	280	Introduction to Quality Assurance	3
ELEC	111L	Introduction to Photonics	4
ELEC	203L	Introduction to Microprocessors	6
ELEC	205L	Analog Circuits	6
ELEC	214L	Troubleshooting Techniques	3
ELEC	276L	Soldering Techniques (7.5 weeks)	2

Optional Courses

ELEC	296	Topics	2-8
ELEC	297	Special Problems	2-8

ELEC	298	Internship	3
ELEC	299	Cooperative Education	3

MECHANICAL TECHNOLOGY

Trades & Service Occupations Department

The Mechanical Technology associate of applied science degree is available with two concentrations: air conditioning and plumbing. Cross training in both programs is provided.

All courses must be passed with a minimum grade of C to qualify for graduation.

Information about this program is available from the Advisement Centers at 224-3 177 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 213, MATH 120 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 and behavioral science elective
Term 4: PLMB 101, 101L, 102, 102L, 105, 106L, PHYS 102 or higher

			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 Application	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 Electrical 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

Additional Required Trades & Service Occupations Courses

EPT	213	Occupational Safety	3
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 and Behavioral Science Elective			3
MATH	120 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 213, MATH 120 or higher

Term 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 and behavioral science elective, PHYS 102 or higher

			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 Application	2
ACHR	151	Air Conditioning	2
ACHR	152	Air Conditioning Controls	2
ACHR	153	Gas Heating Systems	2
ACHR	154	Gas Heating Electrical Systems	2

Other Required Trades & Service Occupations Courses

EPT	213	Occupational Safety	3
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 and Behavioral Science Elective			3
MATH	120 or higher		3-4
PHYS	102 or higher		3
	Total		**68-69**

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 Certification Agency exams to obtain Certified Medical Laboratory Technician credentials.

The clinical practicum experience at affiliated hospitals and laboratories provides experience in performing laboratory tests under the direction of a clinical instructor. Students must arrange for their own transportation to the hospitals or labs.

An agreement with the University of New Mexico Medical Laboratory Science (MLS) Department 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 110L or MLT 296/296A of $20 for one lab coat. There is a uniform fee of $7.50 for MLT 151C for a name tag, hospital parking permits and preventive lab tests in case of needle stick exposure. Each MLT laboratory course also has a $20 supply fee.

Orientation 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 orientation sessions. For more information on orientation 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 224-4111 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.

Students petitioning for enrollment must:

- ☐ submit a completed TVI application declaring MLT as the major;
- ☐ request that transcripts from *all* postsecondary schools previously attended be sent to TVI's Records Office (allow three to four weeks); and
- ☐ have a cumulative GPA or 2.0 or higher.

Prerequisites are:

- ☐ high school diploma or equivalent
- ☐ English, math, reading and science at 100 level (MATH 100A prerequisite may be fulfilled by ACT, SAT or Accuplacer score or college coursework)

There are two pathways available for students to enter the program in the fall term. **Pathway 1** is for students who need to complete some or all of the required Arts & Sciences courses. The following order of courses is recommended:

Fall Term: ENG 101, MATH 119, CHEM 111/112L, BIO 123/124L, MLT 110L
Spring Term: MATH 145, CHEM 212, BIO 136/139L, MLT 151C
Summer Term: BIO 239/239L, Hum/SS elective
Fall Term: MLT 201L, 114/114C (7.5 weeks), 204L (7.5 weeks)
Spring Term: MLT 203L, 206/206C
Summer Term: MLT 205C

Arts & Sciences courses may be taken in this order or ahead of schedule.

Pathway 2 is for students who have all Arts & Sciences courses completed prior to the fall term with the exception of the Humanities/Social Science elective which may be taken in the last term. Students currently enrolled in the remaining Arts & Sciences courses during the summer term may still petition for the fall term if they submit proof of enrollment in the courses. The following order of courses is recommended:

Fall Term: MLT 110L, 201L, 114/114C (7.5 weeks), 204L (7.5 weeks)
Spring Term: MLT 151C, 203L, 206/206C
Summer Term: MLT 205C, Hum/SS elective

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 224-3 177 or 224-5646 and from the program director at 224-4132.

			Credit Hours
Required Arts & Sciences Courses			
BIO	123/124L	Biology for Health Sciences/Lab (BIO 121/121L[1])	4
ENG	101	College Writing (ENG 102[1])	3
CHEM	111/112L	Introduction to Chemistry/Lab (CHEM 121L[1])	4
CHEM	212[1]	Organic Chemistry and Biochemistry	4
BIO	136/139L	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 and Statistics	3
Humanities/Social Science Elective[1]			3
Required Medical Laboratory Technician Courses			
MLT	110L	Introduction to Medical Technology	3
MLT	114	Immunology	1
MLT	114C	Clinical Immunology	1
MLT	151C	Clinical Experience Urinalysis/Phlebotomy	3
MLT	201L	Clinical Chemistry	7
MLT	203L	Clinical Hematology/Coagulation	6
MLT	204L	Clinical Immunohematology	5
MLT	205C	Clinical Experience	11
MLT	206	MLT Microbiology	3
MLT	206C	Clinical MLT Microbiology	2
	Total		**70**

[1]These courses may be substituted for the required course.

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. The program also provides the opportunity to transfer to a four-year program. 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 120 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, humanities/social and behavioral science elective

			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 and Behavioral Science Elective			3

MATH	120 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, MATH 120
Term 2: MATT 111, 113, WELD 114L, 115L, 116L, 117L, ENG 101, BA 150 or CP 176 or CSCI 101
Term 3: MATT 173, 202, 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 and behavioral science elective

			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
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
MATT	202	Metallurgy	3
WELD	202	Advanced Blueprint Reading	2
WELD	205L	Pipe Layout and Welding	2
WELD	206L	Advanced GMAW and Fabrication	3
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	120 or higher		3-4
PHYS	102 or higher		3
Total			**64-65**

MICROCOMPUTER MANAGEMENT

Business Occupations Department

The Microcomputer Management program combines microcomputer concepts, computer applications, accounting skills and problem solving in a business environment.

The associate of applied science degree may be transferred to the University of New Mexico toward a bachelor's degree in Organizational Learning and Instructional Technology.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-3819.

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

Term 1: ACCT 101, 111, BA 121, 150

Term 2: *Business Computer Applications:* ACCT 102, ENG 101, MMS 134 or 135, 150,151, 160, 162, 164

Business Information Management: ACCT 102, ENG 101, MMS 134 or 135, 142, 150, 160, 164

Data Communications Management: ACCT 102, ENG 101, MMS 140, 150, 151, 160, 162, 164

Multimedia: BA 113, ENG 101, MMS 134 or 135, 150, 160, 170, 257

Term 3: *Business Computer Applications:* BA 113, 157,159, COMM 110 or 130 or 221 or 232 or 240, MMS 156, 159, 161, 168, 169, 201

Business Information Management: BA 113, COMM 110 or 130 or 221 or 232 or 240, MMS 159, 168, 169, 201, 250, 251

Data Communications Management: BA 113, COMM 110 or 130 or 221 or 232 or 240, MMS 159, 168, 169, 201, two electives

Multimedia: COMM 110 or 221 or 232 or 240, MMS 173, 174, 201, 255, 270, 271

Term 4: *Business Computer Applications:* ACCT 254, BA 133, MMS 171, 257, 261, elective

Business Information Management: ACCT 254, BA 133, MMS 252,261, elective

Data Communications Management: ACCT 254, BA 133, MMS 252,261, elective

Multimedia: BA 133, MMS 171,272, elective

MICROCOMPUTER MANAGEMENT CORE

			Credit Hours
ACCT	101	Financial Accounting I	
or ACCT	101A and ACCT 101B		6
ACCT	111	Business Math	3
BA	113	Introduction to Business	3
BA	121	Business English	3
BA	150	Introduction to Computer Processing	4
ENG	101	College Writing	3
MMS	150	Microsoft Windows (5 weeks)	1
MMS	160	Introduction to Internet (5 weeks)	1
MMS	201	Hardware/Software Administration	3
	Subtotal		**27**

BUSINESS COMPUTER APPLICATIONS CONCENTRATION

ACCT	102	Financial Accounting II	
or ACCT	102A and ACCT 102B		6
BA	157	Computer Accounting for Small Business (5 weeks)	1
BA	159	Intermediate Quickbooks (5 weeks)	1
COMM	110 or 130 or 221 or 232 or 240		3
MMS	134	WordPerfect for Windows	
or MMS	135	Microsoft Word for Windows	3
MMS	151	DOS Fundamentals (5 weeks)	1
MMS	156	Office Management Software (5 weeks)	1
MMS	159	Access Fundamentals (5 weeks)	1
MMS	161	Project Management (5 weeks)	1

MMS	162	Windows NT Workstation (5 weeks)	1
MMS	164	Intermediate Windows (5 weeks)	1
MMS	168	Intermediate Access (5 weeks)	1
MMS	169	Advanced Access (5 weeks)	1
		Total Required for Certificate	49

Courses Required for Degree

ACCT	254	Electronic Spreadsheets	3
BA	133	Principles of Management	3
ENG	119	Technical Communications	3
MATH	120	Intermediate Algebra or higher level math	4
MMS	171	Hypertext Markup Language (HTML) (5 weeks)	1
MMS	257	Presentation Graphics	3
MMS	261	Spreadsheet Macro Programming (5 weeks)	1
PHIL	245B	Business Ethics	3
Approved Elective			3
		Total Required for Degree	73

BUSINESS INFORMATION MANAGEMENT CONCENTRATION

ACCT	102	Financial Accounting II	
or ACCT 102A and ACCT 102B			6
COMM 110 or 130 or 221 or 232 or 240			3
MMS	134	WordPerfect for Windows	
or MMS 135		Microsoft Word for Windows	3
MMS	142	Introduction to Information Management	3
MMS	159	Access Fundamentals (5 weeks)	1
MMS	164	Intermediate Windows (5 weeks)	1
MMS	168	Intermediate Access (5 weeks)	1
MMS	169	Advanced Access (5 weeks)	1
MMS	250	Business Intranets/Extranets	3
MMS	251	Business Operations Management	3
		Total Required for Certificate	52

Courses Required for Degree

ACCT	254	Electronic Spreadsheets	3
BA	133	Principles of Management	3
ENG	119	Technical Communications	3
MATH	120	Intermediate Algebra or higher level math	4
MMS	252	Business Database Management	3
MMS	261	Spreadsheet Macro Programming (5 weeks)	1
PHIL	245B	Business Ethics	3
Approved Elective			3
		Total Required for Degree	75

DATA COMMUNICATIONS MANAGEMENT CONCENTRATION

ACCT	102	Financial Accounting II	
or ACCT 102A and ACCT 102B			6
COMM	110 or 130 or 221 or 232 or 240		3
MMS	140	Data Communications Essentials	3
MMS	151	DOS Fundamentals (5 weeks)	1

MMS	159	Access Fundamentals (5 weeks)	1
MMS	162	Windows NT Workstation (5 weeks)	1
MMS	164	Intermediate Windows (5 weeks)	1
MMS	168	Intermediate Access (5 weeks)	1
MMS	169	Advanced Access (5 weeks)	1
Approved Electives			6
		Total Required for Certificate	**51**

Courses Required for Degree

ACCT	254	Electronic Spreadsheets	3
BA	133	Principles of Management	3
ENG	119	Technical Communications	3
MATH	120	Intermediate Algebra or higher level math	4
MMS	252	Business Database Management	3
MMS	261	Spreadsheet Macro Programming (5 weeks)	1
PHIL	245B	Business Ethics	3
Approved Elective			3
		Total Required for Degree	**74**

APPROVED ELECTIVES

MMS	140	Data Communications Essentials	3
MMS	240	Data Management	3
MMS	241	NetWare 4.11 Data Management	3
MMS	242	Windows NT Server Management	3
MMS	243	Windows NT TCP/IP Data Communications	3
MMS	244	Windows NT Enterprise Data Communications	3
MMS	252	Business Database Management	3

MULTIMEDIA CONCENTRATION

COMM	110 or 221 or 232 or 240		3
MMS	134	WordPerfect for Windows	
or MMS	135	Microsoft Word for Windows	3
MMS	170	Introduction to Multimedia	3
MMS	173	Beginning Photoshop (5 weeks)	1
MMS	174	Intermediate Photoshop (5 weeks)	1
MMS	255	Desktop Publishing	3
MMS	257	Presentation Graphics	3
MMS	270	Macromedia Authorware	3
MMS	271	Macromedia Director	3
		Total Required for Certificate	**50**

Courses Required for Degree

BA	133	Principles of Management	3
ENG	119	Technical Communications	3
MATH	120	Intermediate Algebra or higher level math	4
MMS	171	Hypertext Markup Language (HTML) (5 weeks)	1
MMS	172	Web Construction Coding (5 weeks)	1
MMS	272	Adobe Premiere	3
PHIL	245B	Business Ethics	3
Computer Elective			3
		Total Required for Degree	**71**

APPROVED MULTIMEDIA ELECTIVES*

BA	157	Computer Accounting for Small Business (5 weeks)	1
BA	159	Intermediate Quickbooks (5 weeks)	1
BGC	201	Advanced Digital Publishing	3
BGC	202	Digital Drawing	3
BGC	204	Digital Printing Production	3
MMS	156	Office Management Software (5 weeks)	1
MMS	158	Excel Fundamentals (5 weeks)	1
MMS	159	Access Fundamentals (5 weeks)	1
MMS	161	Project Management (5 weeks)	1
MMS	162	Windows NT Workstation (5 weeks)	1
MMS	164	Intermediate Windows (5 weeks)	1
MMS	166	Intermediate Excel (5 weeks)	1
MMS	167	Advanced Excel (5 weeks)	1
MMS	168	Intermediate Access (5 weeks)	1
MMS	169	Advanced Access (5 weeks)	1
MMS	175	Advanced Photoshop (5 weeks)	1
MMS	176	Introduction to Internet Commerce (5 weeks)	1
MMS	178	Beginning FrontPage (5 weeks)	1
MMS	179	Intermediate FrontPage (5 weeks)	1
MMS	250	Business Intranets/Extranets	3
MMS	251	Business Operations Management	3
MMS	252	Business Database Management	3
MMS	256	Advanced Desktop Publishing	3
MMS	296	Topics Course	1-3
MMS	298	Internship	4
MMS	299	Cooperative Education	4

*May be taken at any time when prerequisites are met.

NETWORKING TECHNOLOGY

Technologies Department

In this program students acquire the skills to administer and support computer systems and networks. Students have the choice of two concentrations: Network Systems Management and Network Technical Support. Graduates are prepared for entry-level jobs in government, business and industry. The Network Systems Management concentration 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. The Network Technical Support concentration is designed for a person who is responsible for 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.

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 BA 150 or equivalent.

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

CORE REQUIREMENTS

			Credit Hours
CP	213	Database Concepts	3
CP	218	Introduction to Client/Server Technology	3

CP	274L	Introduction to UNIX and WANs	3
CP	282	Networking Topologies/Network OS Environments	3
CP	283	Overview of Network OS Environments	3
CP	285	Troubleshooting Networks	3
ACCT	103	Survey of Accounting for non-Business Majors	3
ELEC	217	Upgrading and Repairing PCs	3
ENG	101	College Writing	3
ENG	119	Technical Communications	
or Communications (COMM) Elective			3
	Subtotal		30

NETWORK SYSTEMS MANAGEMENT CONCENTRATION

CERTIFICATE AND DEGREE REQUIREMENTS

CP	105	Fundamentals of Computer Programming	6
CP	175L	Introduction to C Language Programming	3
ELEC	105L	Digital Circuits	4
	Total Credits for Certificate		43

Additional Associate of Applied Science Degree Requirements

CP	275	Advanced UNIX and WAN Administration	3
MATH	121	College Algebra	3
or MATH	150	Advanced Algebra	4
MATH	145	Introduction to Probability and Statistics	3
Social and Behavioral Sciences or Humanities Elective			3

Additional 12 Credits Selected from Courses Below

CP	101L	ANSI COBOL	6
CP	220	Advanced Database Concepts	3
CP	241	Local Area Network (LAN) Systems Manager [previously MMS 258]	3
CP	242	LAN Management [previously MMS 262]	3
CP	243	Advanced LAN Management [previously MMS 263]	3
CP	278	Advanced C Language Programming	3
CP	286	Windows NT Server [previously MMS 264]	3
CP	281L	C++ Language Programming	3
	Total Credits for Degree		67-68

Optional Courses

CP	296	Topics	3-6
CP	297	Special Problems	3-6
CP	298	Internship	3
CP	299	Cooperative Education	3

NETWORK TECHNICAL SUPPORT CONCENTRATION

CERTIFICATE AND DEGREE REQUIREMENTS

CP	241	Local Area Network (LAN) Systems Manager [previously MMS 258]	3
CP	242	LAN Management [previously MMS 262]	3
CP	243	Advanced LAN Management [previously MMS 263]	3
CP	286	Windows NT Server [previously MMS 264]	3

BA	113	Introduction to Business	3
BA	133	Principles of Management	3
		Total Credits for Certificate	48

Additional Associate of Applied Science Degree Requirements

MATH	120	Intermediate Algebra	4
PHIL	245B	Business Ethics	
or PHIL	245T	Ethics of Technology	3
Social and Behavioral Sciences or Humanities Elective			3

Additional 12 Credits Selected from Courses Below

CP	103	Mathematics for Computer Programmers	4
CP	105	Fundamentals of Computer Programming	6
CP	175L	Introduction to C Language Programming	3
CP	220	Advanced Database Concepts	3
CP	275	Advanced UNIX and WAN Administration	3
CP	278	Advanced C Language Programming	3
CP	281L	C++ Language Programming	3
BA	121	Business English	3
MMS	160	Introduction to Internet (5 weeks)	1
MMS	162	Windows NT Workstation (5 weeks)	1
		Total Credits for Degree	70

Optional Courses

CP	296	Topics	3-6
CP	297	Special Problems	3-6
CP	298	Internship	3
CP	299	Cooperative Education	3

NURSING HOME/HOME HEALTH ATTENDANT

Health Occupations Department

This 150-hour, seven-week special course is designed to teach basic nursing skills to individuals who wish to work or are working in a nursing home as an attendant or in patients' homes as a home health attendant. Graduates are eligible to take the state certification exam to become certified nursing assistants (CNA).

The five-week 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 two-week clinical portion applies these skills in a clinical setting.

The $22 uniform fee covers the cost of required apron, name tag, health test, hospital parking permits, transfer belt, CPR and first aid certification, and preventive lab tests in case of needle stick exposure.

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.

			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

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. A certified copy of the record of the jurisdiction, territory or possession of the United States or another country taking the disciplinary action is conclusive evidence of the action.

Information sessions: Separate information sessions are scheduled regularly for each program. For dates and times applicants may call the Health Occupations Department information line at 224-4 16 1. 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 123/124L) and chemistry (CHEM 111/112L) prerequisites. These prerequisites may be met by appropriate high school courses. Waiver 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 initial $140 equipment fee for 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. 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 stan-

dardized 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
- ❑ English, math, reading, science at 100-level (MATH 100A); may be fulfilled by ACT, SAT or Accuplacer scores or college coursework
- ❑ minimum score of 85% on Nursing/MLT Basic Math test within 12 months prior to petitioning
- ❑ cumulative TVI GPA 2.0 or higher

Note: 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.

Information about the nursing programs is available from the Advisement Centers at 224-3 177 or 224-5646 and from the director at 224-4141.

PRACTICAL NURSING

This 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 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 coursework 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 is a $130 uniform fee for PN 126C.

Required Arts & Sciences Courses

			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	127C	Family Nursing	8
[3]PN	131	Pharmacology	3
PN	128C	Nursing of the Family with Complex Problems	13
PN	129	Trends and Issues in Practical Nursing	1
	Total		**52**

[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. The program 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
- 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 equipment 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

			Credit Hours
BIO	237/247L	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
PSY	105	General Psychology	3
[1]NUTR	244	Human Nutrition	3
PSY	220	Developmental Psychology	3
PHIL	245M	Biomedical Ethics	3
[2]Elective			1

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

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 330 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 22 hours per week throughout the program.

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

A $35 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

			Credit Hours
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	171	Nursing Assistant-Applications	3
NA	161	Nursing Assistant Issues	2
	Total		**16**

OFFICE ASSISTANT

Business Occupations Department

This two-term certificate program 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 Administrative Assistant certificate/associate of applied science degree.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-3819.

A suggested schedule per term for the Receptionist/Clerical certificate includes:

Term 1: AA 101, 102, BA 121, 150
Term 2: ACCT 111, AA 143, 170, 171, BA 131, elective(s)

			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 Computer Processing	4
Approved	Elective(s)		4
	Total Required for Certificate		**27**

Approved Electives

AA	107	Intermediate Keyboard Skill-building 2
AA	173	Time Management (5 weeks) 1
BA	122	Business Writing 3
BA	252	Customer Relations 3
MMS	157	PowerPoint Fundamentals (5 weeks) 1
MMS	158	Excel Fundamentals (5 weeks) 1
MMS	159	Access Fundamentals (5 weeks) 1
MMS	160	Introduction to Internet (5 weeks) 1
SSKL	211	Employment Skills-General (15 hours) 1

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 $35 course 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.

			Credit Hours
PRNS	255L	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, name tag and hospital parking permits. The program begins in the fall term.

Prerequisites are:

- high school diploma or equivalent
- RDG 099 or equivalent
- ENG 099 or equivalent
- MATH 100A or equivalent

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

			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	3
PT	122C	Pharmacy Technician Practicum	5
PT	125	Pharmacology for Pharmacy Technicians	3

Required Arts & Sciences Courses

CHEM	111/112L	Introduction to Chemistry	4
COMM	221	Interpersonal Communication Studies	3
CSCI	101	Computer Literacy	4
or BA	150	Introduction to Computer Processing	4
or CP	176	Introduction to Technology Computer Applications	4
	Total		**36**

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 hospital and/or clinics, with a grade of C or better in all courses. The program is offered in the fall term.

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

A $40 equipment 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 224-3 177 or 224-5646 and from the program director at 224-5068.

			Credit Hours
PHLB	101	Introduction to Phlebotomy	4
PHLB	122C	Clinical Phlebotomy	3
	Total		7

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, VICA 176

			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	213	Occupational Safety	3
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 Welding Systems	3
VICA 174, 175, 176 or 178			1
	Total		**26**

Optional Courses

PLMB	170	Mechanical Trades Math	1
PLMB	171	Journeyman Preparation	3
PLMB	174L	Polyvinlediene Fluoride (PVDF) Welding Systems	4

PRE-ENGINEERING

Technologies Department

The 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 may contact the director for information on course articulation agreements with the New Mexico universities offering engineering degrees.

This degree does not prepare one for specific job opportunities; rather it 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), a total of 68 hours, and two courses at the University of New Mexico (these and any UNM electives will require UNM tuition).

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 REQUIREMENTS

			Credit Hours
Term 1			
MATH	162	Calculus I	4
ENG	101	College Writing	3
CHEM	121/121L	General Chemistry I	4
CSCI	151	Intro to Computer Programming	3
[2]Humanities or Social Science Elective			3
Term 2			
DDET	102L	Manufacturing Methods	3
ENG	102	Analytic and Argumentative Writing	3
PHYS	160	General Physics I	4
MATH	163	Calculus II	4
CHEM	122/122L	General Chemistry II	4
Term 3			
MATH	264	Calculus III	4
PHYS	161	General Physics II	4
MT	281	Statistical Controls	3
[2]Humanities or Social Science Elective			3
[1]Technical Elective			3
Term 4			
[3]CE	202	Engineering Statics (UNM)	3
PHYS	262	General Physics III	4
[3]EECE	203	Circuit Analysis (UNM)	3
*Technical Elective			3
[2]Humanities or Social Science Elective			3
Total for Associate Degree			**68**

[1] The technical electives may be chosen from computer software, computer hardware or other engineering courses at TVI or UNM. Electives may be chosen in conference with the program director who can guide selections according to articulation agreements.

[2] The Humanities and Social Science electives may be chosen from a variety of Arts & Science courses in the TVI Catalog. Students planning to transfer to complete degree programs are advised to refer to the catalogs of their receiving institution.

[3] The courses at UNM were required in the Pre-Engineering degree and are currently required in UNM's bachelor's engineering degree programs. They are recommended as electives in the Commission on Higher Education's core program for the associate degree in pre-engineering. TVI may replace these courses later with courses offered in the Technologies Department.

PRE-MANAGEMENT

Business Occupations Department

This associate of arts degree is 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 of 35 credit hours 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 program director 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 Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-3811.

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 counsel, lab science

Term 3: ECON 201, ENG 219, 220 or COMM 130, 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 and 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 program director or admissions advisor at the transfer institution.

[2] Consult the Pre-Management program director 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

	Credit Hours
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
ENG 219, 220, COMM 130 or 232	3
Subtotal	9
Mathematics (see recommended courses for transfer institution)	
MATH 121 or 150	3
MATH 145 or 245 (statistics; MATH 180 is prerequisite for 245)	3
Subtotal	6
Laboratory Science (must include lab)	7
Social and Behavioral Sciences	
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	3
Language (not English)	4
Fine Arts (art, music or theatre)	3
Total General Education requirements	47

Business Requirements

BA	150 or CSCI 101	4
BA	113 or 133 (see recommendations for transfer institution)	3
BA	211	3
ACCT 101 and 102 (transfers equivalent to six credit hours)		12
Total Business Requirements		22*
Total		69*

* Transfers as 63 credit hours because 12 hours of accounting transfer as six.

QUANTITY FOOD PREPARATION

Trades & Service Occupations Department

The Quantity Foods Preparation 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 (advanced reservations required).

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: QUFD 101, 103L, 105L, 107L, 108L, FSMG 101A, 101B, BKNG 102
Term 2: QUFD 111, 112L, 113L, 114L, 115L, computer course

		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**

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. All courses are approved by the New Mexico Real Estate Commission, Courses listed in this section may be used to meet requirements for the real estate concentration for the associate of applied science degree in Business Administration.

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 224-3 177 or 224-5646 and from the program director at 224-3 823.

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

		TVI Credit Hours	Continuing Education Contact Hours	Pre-Licensing Contact Hours
BA 270	Real Estate Law	3	20	**30
BA 271	Real Estate Practice	3	20	**30
BA 272	Real Estate Appraisal	3	20	30 *37.5
BA 273	Real Estate Finance	3	20	30
BA 274	Real Estate Investment	3	20	30
BA 275	Property Management	3	20	30
BA 279	Uniform Standards of Professional Appraisal Practice	2	0	*15
BA 280	Fair Housing Law	1	8	n/a
BA 281	Americans with Disabilities Act and Related Handicap Discrimination Law	1	8	n/a
BA 282	Appraising the Single Family Residence	3	20	30
BA 283	Rules and Regulations of the New Mexico Real Estate Commission	1	8	n/a *37.5

*Pre-licensing for Appraisal Credit
**Pre-licensing for New Mexico Real Estate Sales Agent

REGISTERED NURSE REFRESHER

Health Occupations Department

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 $20 course 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 is offered once a year in the spring term on the Main Campus and twice a year, spring and summer, through Distance Learning. Enrollment is limited to 20 persons. 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 224-4125.

			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 on-the-job 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

			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

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 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. Orientation 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 orientation 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 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 pro-

gram. 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 $90 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 covers parking. A $75 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 120 or equivalent
- ☐ BIO 123/124L 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 at 224-4 111. There are two ways in which advanced placement can be granted to Respiratory Therapy applicants:

Transfer: Transfer credit may be awarded for documented equivalent therapist coursework completed at other CAAHEP/COARC accredited programs.

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, CHEM 111/112L
Spring Term: RT 111, 116L, 122C, 133, BIO 237/247L
Summer Term: RT 210, 215L, 221C, PHIL 245M
Fall Term: RT 211, 216L, 222C and BIO 238/248L
Spring Term: RT 212, 217L, 223, BIO 239/239L

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-4123.

Required RT Courses

			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
RT	131	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
CHEM	111/112L	Introduction to Chemistry/Lab	4
PHIL	245M	Biomedical Ethics	3
	Total		**69-70**

[1]PHYS 102 or 151 or equivalent may be substituted for RT 131.

[2]BIO 136/139L may be substituted for BIO 237/247L and BIO 238/248L for fall 1999 entry to the RT program only. Starting fall 2000 this substitution will not be allowed.

SALES AND CASHIERING

Business Occupations Department

The Sales and Cashiering certificate program prepares students for entry-level careers in retail and service occupations.

The sales-cashier laboratory provides opportunities for learning the skills of sales, the cash register touch system and human relations. Students work with various makes and models of electronic cash registers.

The 15-week program consists of 225 hours of classroom instruction and a minimum of 150 hours of paid, supervised and evaluated cooperative education work experience with an approved employer. A student who completes the course with a grade of C or better receives an Albuquerque TVI certificate.

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

The program was previously named Cashier Sales.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program director at 224-3823.

			Credit Hours
SALE	101L	Sales-Cashier Lab	9
SALE	299	Cooperative Education	4
	Total		**13**

STENOTRANSCRIPTION

Business Occupations Department

Stenotranscriptionists produce documents in corporate, government, publishing, medical and legal office settings and in police departments. Stenotranscriptionists may also be self-employed. They use machine shorthand skills, computers and rapid data entry software to produce documents at 100 words per minute and faster.

To graduate from the program students must pass three five-minute tests of literary at 140 wpm and three five-minute tests of testimony at 150 wpm with 96 percent accuracy and a transcription rate of 16 wpm. Students also must complete a stenotranscription internship with a minimum of 75 clock hours of practical experience. A minimum of 40 of those hours shall be spent in actual writing time.

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 103.

Information about this program is available from the Advisement Centers at 224-3177 or 224-5646 and from the program chair at 224-3847.

A suggested schedule per term for the Stenotranscription certificate program includes:

Term 1: BA 121, 131, 150, CR 103
Term 2: CR 104
Term 3: CR 210, 251
Term 4: CR 298A

			Credit Hours
BA	121	Business English	3
BA	131	Business Interpersonal Skills (7.5 weeks)	2
BA	150	Introduction to Computer Processing	4
CR	103	Machine Shorthand I	7
CR	104	Machine Shorthand II	7
CR	210	Machine Shorthand III	8
CR	251	Stenotranscription	3

CR	298A	Internship	2
Approved	Elective		1-4
	Total		**37-41**

Approved Electives

AA	143	Word Processing	
or MMS	134	WordPerfect for Windows	
or MMS	135	Microsoft Word for Windows	3
AA	231	Business English Applications	3
AA	250	Machine Transcription	3
AA	260	Business Procedures	3
AA	270	Medical Transcription	3
AA	275	ICD-9-CM Coding	3
AA	276	Current Procedural Terminology	3
BA	211	Business Law	3
BA	252	Customer Relations	3
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/Procedures	3
CR	250	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
MMS	150	Microsoft Windows (5 weeks)	1
MMS	151	DOS Fundamentals (5 weeks)	1
MMS	160	Introduction to Internet (5 weeks)	1

*May be taken at any time when prerequisites are met.

SURGICAL TECHNOLOGY

Health Occupations Department

Surgical Technology is a two-term certificate program which 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). 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 $35 uniform fee covers the cost of a lab coat, hospital parking permits, name tags and preventive lab tests in case of a needle stick exposure. Each student is required to have one set of surgical scrubs for lab.

Prerequisites are:

- ❑ high school diploma or equivalent
- ❑ MATH 099 and RDG 099 or equivalent
- ❑ completion of all required Arts & Sciences courses before fall term

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 the program director at 224-4166.

Required Arts & Sciences Courses

			Credit Hours
BIO	110/112L	Biology for Non-majors	4
BIO	136/139L	Anatomy and Physiology for Non-majors	4
or BIO	237/247L	Anatomy and Physiology I	4
or BIO	238/248L	Anatomy and Physiology II	4
COMM	221	Interpersonal Communications	3
ENG	101	College Writing	
or ENG	102	Analytical and Argumentative Writing	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**

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, including management and supervision, 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 120 or higher
Term 2: AUTC 131L, 132L, 133L, 134L, EPT 213
Term 3: AUTC 221L, 222L, 223L, ENG 101, BA 150 or CP 176 or CSCI 101
Term 4: EPT 102, WELD elective, COMM 130 or higher, PHYS 102 or higher, humanities social and behavioral science elective

			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	102	Emergency Response	3
EPT	213	Occupational Safety	3
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 and Behavioral Science Elective			3
MATH	120 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 103L, 104L, 105L, 106, 107, 108, MATH 120 or higher
Term 2: DETC 111L, 112, 112L, 113, 113L, 114, 115, ENG 101, EPT 213
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 and behavioral science elective

			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
DETC	115	Diesel Electronics	3
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	102	Emergency Response	3
EPT	213	Occupational Safety	3
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	120 or higher		3-4
PHYS	102 or higher		3
Humanities/Social and Behavioral Science Elective			3
	Total		**64-65**

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 (pre-qualification, 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.

			Credit Hours
TRDR	101	Basic Operational Theory	6
TRDR	102L	Basic Operational Lab	4
TRDR	103L	Advanced Operational Practices	3
	Total		13

Optional Course

TRDR	171	Material Handling	2

WEB TECHNOLOGY

Technologies Department

The Web Technology program is designed to meet the needs of an entirely new 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, programming and network management. The degree offers advanced skills in web management, critical thinking and communication.

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 program director at 224-3340.

CERTIFICATE AND DEGREE REQUIREMENTS

			Credit Hours
BA	121	Business English	3
BA	122	Business Writing	
or ENG	101	College Writing	3
BA	**222**	Principles of Marketing	3
CP	105	Fundamentals of Computer Programming	6
CP	**132**	Introduction to Web Scripting	3
CP	213	Database Concepts	3
CP	**282**	Networking Topologies/Network OS Environments	3
MMS	160	Introduction to the Internet	1
MMS	171	Hypertext Markup Language (HTML)	1
MMS	172	Web Construction Coding	1
MMS	173	Beginning Photoshop	1
MMS	174	Intermediate Photoshop	1
MMS	175	Advanced Photoshop	1
MMS	176	Introduction to Internet Commerce	1
BGC	**200**	Digital Publishing	
or MMS	255	Desktop Publishing	3
MMS	**276**	Web-site Design	3
		Total Credits for Certificate	**37**

ADDITIONAL ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS

CP	135	Advanced Web Scripting	3
CP	220	Advanced Database	3
CP	235	Programming in JAVA	3
CP	274L	Introduction to UNIX and WANs	3
CP	275	Advanced UNIX and WAN Administration	3
CP	283	Overview of Network Operating System Environments	3
COMM	221	Interpersonal Communication Studies	
or COMM	232	Business and Professional Communication Studies	
or COMM	240	Organizational Communication Studies	3
ENG	101	College Writing	3
MATH	119	Methods of Problem Solving	
or MATH	120	Intermediate Algebra	4

PHIL	156	Logic and Critical Thinking	3
Social and Behavioral Sciences Elective			3
		Total Credits for Degree	71

Optional Courses

CP	296	Topics	3-6
CP	297	Special Problems	3-6
CP	298	Internship	3
CP	299	Cooperative Education	3

WELDING

Trades & Service Occupations Department

The Welding certificate program qualifies students for entry-level employment in the metals-processing 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-arc (GMAW), gas tungsten-arc (GTAW) and pipe welding processes. Instruction is also offered in welding fabrication and materials testing. The program conforms to the American Welding Society EG 2.0-95 training standard for training of entry-level welders. 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 224-37 18.

A suggested schedule includes:

Term 1: MATT 101, 102, 202; WELD 104L, 106L, 114L, 115L

Term 2: MATT 111, 113, WELD 116L, 202, 205L, 206L, 207L

			Credit Hours
MATT	101	Metals Math I	2
MATT	102	Metals Blueprint Reading I	2
MATT	202	Metallurgy	2
WELD	104L	Oxyacetylene Welding and Cutting	2
WELD	106L	Introduction to SMAW	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

ADULT EDUCATION (NON-CREDIT) CLASSES

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
Covers 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 052 Reading in Social Studies
Studies history, behavioral sciences, political science, geography and economics using critical thinking to prepare for the social studies test of the GED.

BSK 053 Reading in Science
Covers critical reading in a broad spectrum of science disciplines: introduction to plant and animal biology, human biology, earth science, chemistry and physics to prepare for the science test of the GED.

BSK 060 Math Fundamentals
Presents overview of the language and basic concepts of math as well as a refresher in addition, subtraction, multiplication and division using whole numbers and decimals.

BSK 061 Whole Numbers, Decimals and Fractions
Covers decimal counting system (whole and fractional parts) and development of problem-solving skills necessary for success on the GED exam and in personal and job-related situations.

BSK 062 Ratios and Proportions, Percents and Data Analysis
Provides instruction in constructing ratios and proportions to solve word problems; analysis/interpretation of data contained on tables, charts and graphs; and calculation of percentage.

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 071 Spelling and Grammar
Provides comprehensive refresher in language mechanics, usage and spelling improvement. Prerequisite or corequisite for BSK 072, Basic Skills Sentence and Paragraph Writing.

BSK 072 Sentence and Paragraph Writing
Focuses on sentence structure, grammar, punctuation, syntax and paragraph development with practice in analyzing writing assignments to ascertain purpose and composing narrative, descriptive, informative and persuasive paragraphs.

BSK 073 Essay Writing
Presents systematic study of the steps in the writing process, essay structure and organizational methods to produce five to seven essays on topics representative of those given on the GED writing skills test.

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 refresher 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.

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
For students who have had no previous exposure to written or spoken English. Introduces alphabet, phonemic system, basic vocabulary and simple sentences in meaningful, communicative contexts.

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
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. Provides study of and practice in communication skills with practical information regarding educational programs and support services.

Course Credit Hours

ESL 081 ESL Integrated
Comprehensive, community-based classes for students at all levels of English proficiency. Presents reading, writing, listening, speaking and grammatical skills through group work, paired practice and self-paced instruction.

ESL 085 Citizenship
For students who have a working knowledge of English and are preparing to become American citizens. Covers basic English, American history and government.

ESL 082 ESL Special Topics
Presents various topics. See Schedule of Classes.

Note: Students may also study any ESL subject on an individual basis at the Main Campus or Montoya Campus Adult Education Learning Center.

JLS 040 Job/Life Skills
Examines critical life issues-self-esteem, study skills, parenting and job skills-and explores occupational choices and job-placement services at TVI.

JLS 041 Computer Literacy for Adult Educaticn
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, resumes and interviews; exploration of sources of employment particularly helpful for students transitioning from welfare to work.

Note: Students may also study any job/life skills subject on an individual basis at the Main Campus or Montoya Campus Adult Education Learning Centers.

Credit course descriptions begin on the next page.

AA 101 Beginning Keyboarding 3
Keyboarding by touch method and developing speed and accuracy. A minimum average speed of 25 words per minute (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 3
(Prerequisite: AA 101) 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 2
(Prerequisite: AA 101 or 25 wpm typing speed on a five-minute timing) For students with various levels of keyboarding skills. Evaluation is based on lessons completed and on individual speed and accuracy improvement. (5 lab hours a week) Course fee: $10

AA 107 Intermediate Keyboard Skill-building 2
(Prerequisite: AA 102 or 35 wpm typing speed on a five-minute timing;) 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 4
(Prerequisite: ACCT 111) Complete bookkeeping cycle, financial statements and payroll. A computerized practice set is completed in this course.

AA 143 Word Processing 3
(Prerequisites: BA 150 and AA 102 or minimum typing speed of 35 wpm on five-minute timing or permission of program director) Basic and intermediate features for preparing business documents. (2 theory + 3 lab hours a week) Course fee: $15

AA 170 Business Telephone Techniques 1
Tape-recorded and role-playing activities are used to develop proper enunciation and pronunciation and effective listening skills; methods for taking messages, transferring calls, putting callers on hold, screening calls, returning calls and dealing with challenging callers are presented. (5 weeks)

AA 171 Working with the Challenging Customer 1
Designed to enhance the 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 1
Principles and activities are presented to aid the student in applying time management skills in a personal and professional environment. (5 weeks)

AA 174 Computers in the Medical Office 1
(Prerequisite: BA 150 or permission of program director) Computerized software package is used to introduce tasks performed in a medical office, 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

AA 180 Work-site Learning 1
Participation in an approved customer service setting to promote practical application of customer service ecre curriculum. Taken in student's final five weeks of the program. (5 weeks; 1 theory + 9 lab hours a week)

AA 200 Advanced Word Processing 3
(Prerequisites: AA 107 or typing speed of 45 wpm on five-minute timing, AA 143, 202, MMS 157 or permission of program director) Advanced applications for preparing business documents and document integration. (2 theory + 3 lab hours a week) Course fee: $15

AA 202 Information Processing 3
(Prerequisite: BA 150 or permission of program director; AA 112 recommended) Computerized office applications, electronic spreadsheets and database management. (2 theory + 3 lab hours a week) Course fee: $15

AA 205 Advanced Keyboard Skill-building 2
(Prerequisite: AA 107 or 45 wpm typing speed on five-minute timing) 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 3
(Prerequisite: BA 122 or permission of program director) Compose, transcribe, analyze/edit business documents for correct grammar, punctuation, mechanics and language. Reference materials are used. Course fee: $10

AA 250 Machine Transcription 3
(Prerequisites: AA 107, 143, BA 122 or permission of

program director; AA 231 recommended) Development of speed and accuracy in transcribing mailable copy. (2 theory + 3 lab hours a week) Course fee: $15

AA 260 Business Procedures 3
(Prerequisites: AA 107, 143, BA 122) Office procedures, technology, records management, human relations and telecommunications. Capstone course should be taken in the student's final term.

AA 270 Medical Transcription 3
(Prerequisites: CR 132, AA 107 or 50 wpm typing speed on five-minute timing, AA 143, BA 121 or permission of program director; AA 231 recommended) Reinforce 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 275 ICD-9-CM Coding 3
(Prerequisite: CR 132) Hospital coding using International Classification of Diseases (ICD), Clinical Modification codes, the coding book setup and the appropriate codes for diseases and procedures.

AA 276 Current Procedural Terminology (CPT) 3
(Prerequisite: CR 132 or permission of program director; AA 275 recommended) Fundamentals of medical office coding using CPT codes. CPT book setup and appropriate codes for office visits, procedures, exams and diagnoses.

AA 277 Medical Insurance 3
(Prerequisites: AA 275 and 276 or permission of program director) Topics include ethical and legal issues, basics of health insurance, CPT and ICD-9-CM coding, claims processing, Electronic Data Interchange (EDI), managed care systems and special plans and inpatient and outpatient billing.

AA 296 Topics Course 1-3
Current topics in office technology.

AA 297 Special Problems variable
(Prerequisite: permission of program 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 to the problem. An oral presentation may be required.

AA 298 Internship 4
(Prerequisites: AA 143, BA 121 and typing skill of 55 wpm on five-minute timed writing and permission of program director) Students 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)

AA 299 Cooperative Education 4
(Prerequisites: AA 143, BA 121 and typing skill of 55 wpm on five-minute timed writing and permission of program director) Students 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)

ACCT 100 Introduction to Accounting 3
Provides students with information about basic accounting cycle. Additional topics such as payroll and taxes covered as time permits. Helps students prepare for next-level accounting-related courses. (3 theory hours + 1 lab hour a week)

ACCT 101 Financial Accounting I 6
(Prerequisites: MATH 099, RDG 099 or equivalent; pre- or corequisite: ACCT 111 or MATH 162 or 180) Principles of the double-entry accounting system, recording transactions, adjusting entries, preparing statements and closing accounts, accounting for cash, accounts receivable, inventories and tangible and intangible assets are studied. ACCT 101A plus ACCT 101B are equivalent to this course.

ACCT 101A Financial Accounting IA 3
(Prerequisites: MATH 099 or equivalent; RDG 099 or equivalent) This course is the first half of ACCT 101. Principles of the double-entry accounting system including recording transactions, adjusting entries, preparing statements and closing accounts are covered. ACCT 101A plus 101B are equivalent to ACCT 101.

ACCT 101B Financial Accounting IB 3
(Prerequisites: ACCT 101A and 111 or MATH 162 or 180) This course is the second half of ACCT 101 and includes cash, accounts receivable, inventories and tangible and intangible assets. ACCT 101A and 101B are equivalent to ACCT 101.

ACCT 102 Financial Accounting II 6
(Prerequisite: ACCT 101; pre- or corequisite: BA 150; Accounting for current liabilities, payroll, partnerships, corporations, long-term liabilities, investments, statement of cash flows and financial statement analysis. ACCT 102A plus 102B are equivalent to this course.

ACCT 102A Financial Accounting IIA 3
(Prerequisite: ACCT 101 or 101B; pre- or corequisite: BA 150) This course is the first half of ACCT 102 and includes current liabilities, payroll, partnerships and corporations. ACCT 102A plus 102B are equivalent to ACCT 102.

ACCT 102B Financial Accounting IIB 3
(Prerequisites: ACCT 102A, BA 150) This course is the second half of ACCT 102 and includes long-term liabilities, investments, statement of cash flows and financial statement analysis. ACCT 102A plus 102B are equivalent to ACCT 102.

ACCT 103 Survey of Accounting for Non-Business Majors 3
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)

ACCT 111 Business Math 3
(Prerequisite: MATH 099 or equivalent; this course is a pre- or corequisite for ACCT 101) Basic arithmetic operations related to business applications and accounting. 10-key touch method skills using electronic calculators.

ACCT 150 VITA Tax Preparation 2
Introduction to 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 1
(Pre- or corequisite: ACCT 150) Current update on tax code changes and 30 hours of volunteer preparing of tax returns for low-income taxpayers during spring term at one of TVI's VITA locations.

ACCT 201 Intermediate Accounting I 4
(Prerequisite: ACCT 102 or 102B) Accounting theory, concepts, practical application, use of accounting data as a basis for decisions by management, stockholders, creditors and other users of financial statements and accounting reports. Emphasis is on the asset side of the balance sheet.

Course Credit Hours

ACCT 202 Intermediate Accounting II 4
(Prerequisite: ACCT 201) Accounting for current and long-term liabilities, capital stock transactions, dividends, retained earnings and cash flow statements and analysis.

ACCT 240 Tax Accounting I 3
(Prerequisite: ACCT 101 or 101B) Fundamental characteristics of individual federal income taxes.

ACCT 241 Tax Accounting II 3
(Prerequisite: ACCT 240 or permission of program director) Income tax aspects of corporations, partnerships, sub-chapter S corporations, fiduciaries, advanced concepts related to individual income taxes, tax planning and estate and gift taxation.

ACCT 254 Electronic Spreadsheets 3
(Prerequisites: ACCT 102 or 102B, BA 150 or permission of program director) Computer spreadsheets for accounting and business applications. (2 theory + 3 lab hours a week) Course fee: $15

ACCT 255 Computerized Accounting 3
(Prerequisites: ACCT 102 or ACCT 102B, BA 150 or permission of program director) Payroll, inventory control, accounts payable, accounts receivable and general ledger using computerized integrated business software. (2 theory + 3 lab hours a week) Course fee: $15

ACCT 260 Cost Accounting 3
(Prerequisite: ACCT 102 or 102B) Job order and process costing systems for construction and manufacturing.

ACCT 270 Governmental Accounting 3
(Prerequisite: ACCT 102 or 102B) Fund accounting for governmental and other non-profit entities.

ACCT 271 Auditing 3
(Prerequisite: ACCT 102 or 102B) Survey of auditing that includes audit standards, reports, professional ethics, legal liability, evidence accumulation, audit planning, internal control, transaction cycles, other engagements and operational auditing.

ACCT 272 Accounting Systems Design 3
(Prerequisite: ACCT 102 or 102B) Students design a manual accounting system which includes a chart of accounts, accounting manual, flow charts, control and support systems and reports to management.

ACCT 280 Managerial Accounting 3
(Pre- or corequisite: ACCT 260) Interpretation of accounting information for decision making by management in planning and controlling business activities.

ACCT 296 Accounting Topics 1-3
Current topics in accounting.

ACCT 297 Special Problems variable
(Prerequisite: permission of program 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 to the problem. An oral presentation may be required.

ACCT 298 Internship 4
(Prerequisites: ACCT 102 or 102B and permission of program director) Students 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 4
(Prerequisites: ACCT 102 or 102B and permission of program director) Students work a minimum of 150 hours in a new job experience in accounting 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)

ACHR 131 Refrigeration Fundamentals 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or *department approval)* Fundamentals of refrigeration, including components, refrigerants and accessories and hands-on competencies, are included. (1 theory + 2.5 lab hours a week = 15 theory + 37.5 lab hours a term)

ACHR 132 Basic Electricity 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Principles of electricity, measurements, safety, wiring procedures, schematics, components of basic circuits and principles and practices in electricity are presented. (1 theory + 2.5 lab hours a week = 15 theory + 37.5 lab hours a term)

ACHR 133 Refrigerant Management 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Accepted practices and procedures of refrigerant handling, containment, safety, leak detection, evacuation, recovery and charging systems are included. 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 2
(Pre- or corequisite: ACHR 132 or department approval) Primary and control circuits in various applications, troubleshooting and components are covered. Attention to motors and their starting devices is emphasized. (1 theory + 2.5 lab hours a week = 15 theory + 37.5 lab hours a term)

ACHR 135 Refrigeration Application 2
(Pre- or corequisite: ACHR 131 or department approval) System design, accessories, performance characteristics and problem diagnosis are reinforced. (1 theory + 2.5 lab hours a week = 15 theory + 37.5 lab hours a term)

ACHR 136 Control Circuit Applications 2
(Pre- or corequisite: ACHR 134 or department approval) Electrical schematics, diagrams, troubleshooting of circuits and problem diagnosis are stressed. (1 theory + 2.5 lab hours a week = 15 theory + 37.5 lab hours a term)

ACHR 137 Code and Safety Requirements I 1
(Prerequisites: RDG 099 or equivalent or department approval) Code requirements and safety practices related to refrigeration are investigated. Code and safety searches are an integral part of this course.

ACHR 151 Air Conditioning 2
(Prerequisites: A CHR 135, 136 or department approval) Installation, service and maintenance of air conditioning and heat pump systems are covered. (1 theory + 2.5 lab hours a week = 15 theory + 37.5 lab hours a term)

ACHR 152 Air Conditioning Control 2
(Prerequisites: ACHR 135, 136 or department approval) Installation, service and maintenance of air conditioning and heat pump systems controls are covered. (1 theory + 2.5 lab hours a week = 15 theory + 37.5 lab hours a term)

ACHR 153 Gas Heating Systems 2
(Prerequisites: ACHR 135, 136 or department approval) Installation, service and maintenance of forced fossil fuel furnaces are covered. (1 theory + 2.5 lab hours a week = 15 theory + 37.5 lab hours a term)

ACHR 154 Gas Heating Control Systems 2
(Prerequisites: ACHR 135, 136 or department approval) Forced fossil fuel furnace controls installation and main-

tenance are emphasized. (1 theory + 2.5 lab hours a week = 15 theory + 37.5 lab hours a term)

ACHR 155 Commercial Refrigeration 2
(Prerequisites: ACHR 135, 136 or department approval) Installation, service and maintenance of reach-in refrigeration systems are covered. (1 theory + 2.5 lab hours a week = 15 theory + 37.5 lab hours a term)

ACHR 156 System Design 3
Air properties, air movement, heat load calculations and water as a secondary refrigerant are topics. (2 theory + 2.5 lab hours a week = 30 theory + 37.5 lab hours a term)

ACHR 171L Basic Refrigeration Maintenance 3
The types and components of refrigerators and air conditioners are introduced in this theory/lab course. Evaporative coolers and preventive maintenance are stressed. Troubleshooting skills are developed. (1 theory + 5 lab hours a week = 15 theory + 75 lab hours a term)

ACHR 172L Basic Air Conditioning, Heating and Refrigeration 3
Basic equipment and service techniques are introduced in this theory/lab course. Emphasis is on installation and troubleshooting of parallel compressor systems, energy management systems and preventive maintenance programs. (1 theory + 5 lab hours a week = 15 theory + 75 lab hours a term)

ACHR 173L Commercial Refrigeration 3
Commercial refrigeration and ice machines are introduced in this theory/lab course. Preventive maintenance is stressed. Simple servicing and troubleshooting skills are developed. (1 theory + 5 lab hours a week = 15 theory + 75 lab hours a term)

ACHR 210 Pumps and Valves 2
(Prerequisites: ACHR 151, 152 and 154 or department approval) The types of valves and pumps used in hydronic systems, the sizing, selection and internal construction, disassembling, assembling and measurement of impellers are covered. (1 theory + 2.5 lab hours a week = 15 theory + 37.5 lab hours a term)

ACHR 211 Basic Hydronic Principles 2
(Prerequisites: ACHR 151, 152 and 154 or department approval) Basic flow, nomenclature, physical principles of typical systems, piping layout and design are covered. Actual operating systems are investigated. (1 theory + 2.5 lab hours a week = 15 theory + 37.5 lab hours a term)

Course Credit Hours

ACHR 212 Hot Water and Steam Generation Systems 2
(Prerequisites: ACHR 210, 211 or department approval Types, design, construction of typical systems, sizing and controls of units are included. (1 theory + 2.5 lab hours a week = 15 theory + 37.5 lab hours a term)

ACHR 213 Controls I 2
(Prerequisites: ACHR 210, 211 or department approval Pneumatic, electronic and electric control systems with computer interfacing are stressed. (1 theory + 2.5 lab hours a week = 15 theory + 37.5 lab hours a term)

ACHR 214 Chilled Water Systems 2
(Prerequisites: ACHR 210,211 or department approval) Commercial and industrial chilled water systems are emphasized. (1 theory + 2.5 lab hours a week = 15 theory + 37.5 lab hours a term)

ACHR 215 Controls II 2
(Prerequisite: ACHR 213 or department approval) Advanced building controls using interfaced operating monitor equipment are covered. (1 theory + 2.5 lab hours a week = 15 theory + 37.5 lab hours a term)

ACHR 216 Code and Safety Requirements II 1
(Prerequisite: ACHR 13 7 or department approval) Code requirements and safety practices related to refrigeration are investigated. Code and safety searches are an integral part of this course.

AFAS 010 Leadership Laboratory 0
Progressively challenging leadership and management experiences: physical fitness activities; lectures on military policies, ethics, customs and courtesies, military drill and ceremonies. Required enrollment for admission into cadet corps.

AFAS 120 Foundation of the U.S. Air Force 1
(Corequisite: AFAS 010. Concurrent enrollment in leadership laboratory required for cadet status) A survey course designed to introduce students to the United States Air Force, providing an overview of the basic characteristics, missions and organization of the USAF. Meets once weekly. Fall only.

AFAS 121 Foundation of the U.S. Air Force 1
(Corequisite: AFAS 010. Concurrent enrollment in leadership laboratory required for cadet status) A survey course designed to introduce students to the United States Air Force, providing an overview of the basic characteristics, missions and organization of the USAF. Meets once

weekly. Spring only.

AFAS 250 Evolution of USAF Air and Space Power 1
(Corequisite: *AFAS 010. Concurrent enrollment in leadership laboratory required for cadet status)* Topics on Air Force heritage and leaders; introduction to air and space power; continued application of communication skills. Designed to motivate sophomores to transition from cadet to officer candidate and to prepare for field training. Meets once weekly. Fall only.

AFAS 251 Evolution of USAF Air and Space Power 1
(Corequisite.. AFAS 010. Concurrent enrollment in leadership laboratory required for cadet status) Topics on Air Force heritage and leaders; introduction to air and space power; continued application of communication skills. Designed to motivate sophomores to transition from cadet to officer candidate and to prepare for field training. Meets once weekly. Spring only.

ANTH 101 Introduction to Anthropology 3
(Prerequisite: RDG 100) Survey of the breadth of anthropology, including archaeology and biological, cultural and linguistic anthropology.

ANTH 110 Language, Culture and the Human Animal 3
(Prerequisite: RDG 100) Introduction to linguistics and anthropology. Study of the systematic nature of language: phonology, morphology, syntax, semantics and pragmatics.

ANTH 120 Archaeology: Discovering Our Past 3
(Prerequisite: RDG 100) Overview of archaeological theory and methods including data from selected archaeological sites in various geographical areas and from different time periods.

ANTH 130 Cultures of the World 3
(Prerequisite: RDG 100) Basic concepts of cultural anthropology. Survey of cultural characteristics illustrated by a variety of existing cultures in their native environments with societal examples in cross-cultural comparisons.

ANTH 150 Evolutionary Anthropology 3
(Prerequisite: RDG 100) Introduction to biological anthropology and concepts of organic evolution. Emphasis on 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 3
(Prerequisite: RDG 100) Mesoamerican archaeology traced from the earliest inhabitants through the Aztec period. Emphasis on cultural processes and dynamics of cultural evolution.

ANTH 231 North American Indians 3
(Prerequisite: RDG 100) Comparative ethnology of North American Indian tribes on geographic, ecologic and cultural bases. Exploration of life as a North American Indian before European influence and the diversity of cultures existing on the North American continent.

ANTH 238 Cultures of the Southwest 3
(Prerequisite: RDG 100) Basic concepts related to cultural patterns of the American Southwest from A.D. 1600 to the present. Interactions of the ethnic groups that populate the Southwest.

ANTH 255 Southwestern Archaeology 3
(Prerequisite: RDG 100) Interpretations and dynamics of southwestern archaeology from the time of the earliest inhabitants until European contact.

ANTH 265 The Anthropology of Drugs 3
(Prerequisite: RDG 100) Examination of the nature and use of mind-altering drugs from a cross-cultural 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 1-3
(Prerequisite: RDG 100) Various topics. See Schedule of Classes.

ARDR 107L Architectural Drafting I 4
(Pre- or corequisite: ARDR 109) The fundamentals of architectural graphic representation are introduced as the foundation of all A/E drafting courses. Basic common assembly systems are explored and schedules are introduced. (2 theory + 6 lab hours a week) Course fee: $15. Note: Students must provide their own drafting kits.

ARDR 108 Architectural Mathematics 3
(Prerequisite: MATH 100B) Basic concepts of geometry and trigonometry are covered with an emphasis on architectural and engineering applications and calculator use. Students must provide a full-function scientific cal-

culator with a ten-digit display. (2 theory + 3 lab hours a week)

ARDR 109 Building Materials and Methods I 3
(Prerequisites: ENG 100 and MATH 100B or equivalent) Construction systems, sub-systems and components are studied. Emphasis is on foundations, light wood frame and masonry construction. A construction hard hat is required. (2 theory + 3 lab hours a week)

ARDR 113 Site Analysis 2
(Prerequisite: ARDR 180) Analytical factors of site design are examined, such as orientation and view, sound and light intrusions, contours and grading, drainage and foliage. Planning aspects of site size are introduced. (1 theory + 3 lab hours a week)

ARDR 115 Building Materials and Methods II 3
(Prerequisites: ARDR 109, 180) This is a continuation of 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 7
(Prerequisites: ARDR 107L, 115, 213, 214L) In this continuation of ARDR 107L, students perform design development and produce representative architectural construction and detail drawings using graphic, dimensioning and notation systems. (3 theory + 12 lab hours a week) Course fee: $15

ARDR 180 Fundamentals of Computer-assisted Drafting 3
(Prerequisite: CP 176 or equivalent) Introduction to the fundamentals of computer-assisted drafting using AutoCAD. (2 theory + 3 lab hours a week) Course fee: $15

ARDR 181 Intermediate Computer-assisted Drafting 3
(Prerequisite: ARDR 180) Topics include customized menu-making, attribute editing and extracting, and the drawing of isometrics using AutoCAD. (2 theory + 3 lab hours a week) Course fee: $15

ARDR 182 Advanced Computer-assisted Drafting 2
(Prerequisites: ARDR 213, 214L) Introduction of advanced application of CAD. Topics include 3D CAD, including wireframe and solid modeling, working in paper space and third-party UDS applications to AutoCAD. (1 theory + 3 lab hours a week) Course fee: $15

Course Credit Hours

ARDR 183 Fundamentals of Microstation CAD 3
(Prerequisite: CP 176 or equivalent) Introduction to 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 3
(Prerequisite: ARDR 183) Continuing ARDR 183 and Intergraph's Microstation software, topics include user interface development and introduction to three-dimensional design. (2 theory + 3 lab hours a week) Course fee: $15

ARDR 201 Structural Systems Analysis 4
(Prerequisite: ARDR 119L; corequisite: ARDR 203L) Introduction to structural design and graphics in wood, steel and concrete and to elementary beam design problems. (4 theory + 1 lab hour a week)

ARDR 203L Structural Systems CAD Drafting 5
(Prerequisite: ARDR 119L; corequisite: ARDR 201) Development of representative drawings of steel, concrete and/or wood structural systems. (2 theory + 9 lab hours a week) Course fee: $15

ARDR 209L Architectural Design 2
(Prerequisite: ARDR 107L) Lectures present design principles, theories, methods and process. Students design projects to learn by direct experience and role play as a designer communicating with a client, including sketching and single point perspective. (1 theory + 3 lab hours a week) Course fee: $15

ARDR 212L Mechanical/Electrical Systems CAD Drafting 5
(Prerequisite: ARDR 119L; corequisite: ARDR 215) Conventional drafting methods of mechanical and electrical systems are reviewed including overlaying electrical, heating, ventilation and plumbing systems on architectural views. Engineering drawings are developed and engineering graphic skills are emphasized. (2 theory + 9 lab hours a week) Course fee: $15

ARDR 213 CAD Analysis 4
(Corequisite: ARDR 214L) Beginning to advanced CAD concepts and commands are applied to the production and coordination of A/E construction drawings. (4 theory + 1 lab hour a week)

ARDR 214L Architectural CAD Drafting II 7
(Prerequisite: ARDR 180; corequisite: ARDR 213) Development of representative construction drawings us-

ing CAD software commonly employed in the A/E industry. (3 theory + 12 lab hours a week) Course fee: $15

ARDR 215 Mechanical/Electrical Systems Analysis 4
(Prerequisite: ARDR 119L; corequisite: ARDR 212L) General theory and layout information and code requirements for non-residential systems are studied. Topics include lighting, plumbing and air conditioning. (4 theory + 1 lab hour a week)

ARDR 221 Architectural/Engineering Drafting Seminar 1
(Pre- or corequisites: ARDR 119L, 182) Development of a résumé and presentation of a cumulative portfolio to a review committee. Needs, requirements, personnel procedures, expectations of employers and trends of the professional community are examined. Course is taken in the student's last semester. (1 theory + 1 lab hour a week)

ARDR 275 Design Applications for Interiors 3
(Prerequisite: ENG 100 or equivalent) An introduction to basic color systems and psychology, light and lighting, space planning, code applications of finish selections, fabrics and furniture styles are provided. (2 theory + 3 lab hours a week)

ARDR 296 Topics 1-7
(Prerequisite: permission of program chair) Topics offered depend on requests from the community and available instructors.

ARDR 297 Special Problems 1-7
(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 3
(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 3
(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.

Course Credit Hours

ART 101 Introduction to Art 3
Fundamental concepts of visual arts: the language of form and media of artistic expression. Possible museum exhibition attendance.

ART 106 Drawing I 3
(Recommended: ART 101) Exploration of basic drawing concepts with dry and wet media: still life, landscape, portraiture and figures/nudes. Course fee: $25

ART 121 Two-Dimensional Design 3
(Recommended: ART 101,106) 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 3
(Prerequisites: ART 106, 121) Concepts, techniques, processes and vocabulary involved in working in the third dimension. 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

ART 201 History of Art I 3
Survey of Near Eastern, Egyptian, Greek, Roman, early Christian, Byzantine, early Medieval, Romanesque and Gothic art and architecture. Fall, summer only

ART 202 History of Art II 3
Survey of Italian and Northern Renaissance, Baroque, Rococo and 19th-century Western European painting, sculpture and architecture. Spring, summer only.

ART 205 Drawing II 3
(Prerequisite: ART 106) Further concentration on basic drawing concepts with emphasis on descriptive and perceptual drawing using wet and dry media and color. Assigned problems explore aspects of experimental drawing, still life, landscape, portraiture and the figure in environmental contexts and in motion. Course fee: $25

ART 250 Modern Art 3
Major figures, movements and stylistic developments in western art from 1850 to the present.

ART 251 Art of the American Southwest 3
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 3
Survey of 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 3
(Prerequisites: ART 106 and 121 or permission of instructor) Various topics. See Schedule of Classes. Course fee: $25

ASTR 101 Introduction to Astronomy I 3
(Prerequisite: RDG 100. Recommended: Math 100B) Descriptive and historical introduction to the science of astronomy focusing on the solar system including the sun, planets, comets and meteors.

ASTR 102 Introduction to Astronomy II 3
(Prerequisites: RDG 100, Math 100B) Exploration of life cycles of stars and stellar systems and the structure of the universe. Study of 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 1
(Pre - or corequisite: ASTR 102) Optional lab for investigation of the principles discussed in ASTR 102. Course fee: $20

ASTR 296 Topics in Astronomy 3
(Prerequisite: RDG 100) Various topics. See Schedule of Classes.

AUTC 121L Brake Systems 4
Prerequisites: RDG 099, MATH 099 or equivalent or department approval) The principles governing hydraulic brake operation with the practical skills of diagnosis and repair of standard and anti-lock brakes are covered. Lab activities include 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) System repairs and adjustments are accomplished on a variety of modern automobile suspension types. Topics include 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) Fundamentals of design and operation of front and rear drive manual transmissions, differentials and drive line components are addressed. 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 4
(Prerequisites: RDG 099, MATH 099 or equivalent or department approval) Critical troubleshooting skills necessary for identifying and correcting problems found in automotive electrical/electronic systems are presented. Topics include 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) Internal combustion engine theory, engine overhaul procedures and precision tool measuring are covered. Essential engine testing skills and identification of needed repairs are practiced along with removal and replacement of engines. (2 theory + 6 lab hours a week = 30 theory + 90 lab hours a term)

AUTC 132L Automatic Transmissions 4
(Prerequisites: AUTC 126L, RDG 099, MATH 099 or equivalent or department approval) The fundamentals of design and operation of automatic transmissions and transaxles, servicing, and proper repair procedures are reviewed. Experiences include performing pump and clutch repair, valve body overhaul and gear replacement on a variety of transmissions. (2 theory + 6 lab hours a week = 30 theory + 90 lab hours a term)

AUTC 133L Automotive Electronics 4
(Prerequisite: AUTC 126L or department approval) Builds on lessons in AUTC 126L. Testing and diagnostic skills in more complex automotive electronic systems are covered. Subjects include lighting circuits, body computers and sensors, use of lab scopes and scan tools and supplemental restraint systems (SRS). (2 theory + 5 lab hours a week = 30 theory + 75 lab hours a term)

AUTC 134L Air Conditioning and Heating 3
(Prerequisite: AUTC 126L or department approval) Test-

ing, evacuating, and charging air conditioning systems while maintaining an awareness of potential environmental concerns caused by automotive refrigerants are covered 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 3
Basic machine shop repair practices 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 are included. (1 theory + 5 lab hours a week = 15 theory + 75 lab hours a term)

AUTC 172 Air Care Inspector 1
The procedures for becoming a certified air care inspector for the City of Albuquerque Vehicle Pollution Management program are taught along with city and federal regulations governing air pollution and emissions inspections. (7.5 theory + 30 lab hours a term)

AUTC 174L Alternative Fuels 2
(Prerequisites: AUTC 221L, 222L, 223L or equivalent or ASE certification in engine performance) Diagnosis, repair and conversions for compressed natural gas (CNG) and liquefied petroleum gas (LPG) fueled light and medium vehicles are reviewed. Personal and environmental safety, LPG/CNG fuel handling and air/fuel management are included. (1 theory + 2.5 lab hours a week = 15 theory + 37.5 lab hours a term)

AUTC 221L Engine Performance I 4
(Prerequisites: AUTC 126L, 133L or department approval) Basic fuel and ignition systems along with early emission system designs with 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 4
(Prerequisite: AUTC 221L or department approval) A follow-up course to Engine Performance I that 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 4
(Prerequisite: AUTC 222L or department approval) Current production automobile and light truck computerized engine management systems are presented. Operation, trouble code analysis, diagnostic routines and proper repair procedures for electronic ignition (EI), port fuel injection, and emission devices are included. (2 theory + 5 lab hours a week = 30 theory + 75 lab hours a term)

AUTC 296 Special Topics 1-6
(Prerequisite: department approval) Various problems and current automotive subjects are presented.

BA 100 Business Careers/ Technology Awareness 3
Explores various business careers and business technologies. Emphasizes developing listening, speaking and employability skills. Recommended for students interested in business studies. (3 theory hours + 1 lab hour a week)

BA 101 Introduction to Quality Management 1
Concepts and theories of quality improvement. (5 weeks)

BA 102 Fundamentals of Continuous Quality Improvement (CQI) 1
Data gathering for process improvements and organizational culture change. (5 weeks)

BA 103 Quality Tools 1
Tools and techniques such as the cause and effect diagram, brainstorming, control charts and Pareto diagrams. (5 weeks)

BA 104 Team Building for Quality 1
Group process as it applies to team building. (5 weeks)

BA 105 Re-engineering for Quality 1
Tools and techniques to formulate action plans for process improvements. (5 weeks)

BA 106 Quality Leadership 1
Mission statement, goals and strategies to implement quality leadership throughout an organization. (5 weeks)

BA 111 Communications 3
Fundamentals of grammar, punctuation, oral communications and basic technical writing. (7.5 weeks)

BA 113 Introduction to Business 3
(Prerequisite: RDG 099 or equivalent) Structure of business, business activities, business opportunities and an understanding of the nature of the business world.

BA 117 Character Counts 1
Six pillars of Character Counts, Aspen Declaration and decision-making models. (5 weeks)

BA 118 Character Counts in the Workplace 1
Applications of the six pillars of character to the workplace. (5 weeks)

BA 119 Character Counts and the Decision-making Model 1
Character Counts decision-making model applications. (5 weeks)

BA 121 Business English 3
(Prerequisites: RDG 099 or equivalent and ENG 099 or equivalent) Principles of effective written communication in the business environment. Emphasizes correct grammar, punctuation, sentence structure and vocabulary.

BA 122 Business Writing 3
(Prerequisites: BA 121 and 25 wpm typing skill or permission of program director) Compose effective business letters, memos, and reports; develop oral presentation skills.

BA 131 Business Interpersonal Skills 2
Build 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)

BA 133 Principles of Management 3
(Prerequisites: RDG 099 or equivalent, BA 113 or permission of program director) Management functions of planning, organizing, staffing, directing and controlling, human relations, group process, problem solving, team building and leadership skills.

BA 150 Introduction to Computer Processing 4
(Recommended prerequisite: 25 wpm typing skill) Students gain skills in using automated information systems, computer hardware and business software applications. Hands-on experience with microcomputers is provided. Course fee: $15

BA 157 Computer Accounting for Small Business 1
(Prerequisite: AA 112 or ACCT 101 or 101B or ENTR 101 or permission of program director) Accounting software program for a small business: set up records for a business, open accounts, enter transactions and print end-of-period reports. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

BA 159 Intermediate Quickbooks 1
(Prerequisite: BA 157 or permission of program director) Use project accounting for contractors construction, inventory management, budgeting, cash flow and management reports and transferring Quickbooks data to tax software. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

BA 211 Business Law 3
(Prerequisites: RDG 099 or equivalent and ENG 099 or equivalent) Basic knowledge of law including contract law, Uniform Commercial Code, negotiable instruments and alternative dispute resolutions.

BA 215 Money and Banking 3
(Prerequisite: ACCT 102 or 102B) History, nature and function of money, methods of institutional control and theories of monetary policy.

BA 222 Principles of Marketing 3
(Prerequisite: BA 113 or permission of program director) Total marketing concepts from product creation, pricing, promotion and distribution.

BA 251 Retail Merchandising 3
(Pre- or corequisite: BA 222 or permission of program director) Methods and practice of retail merchandising including target market decisions, pricing, considering inventories, displaying layout and buying functions.

BA 252 Customer Relations 3
Relationship of self to customers, problem solving and communicating with customers, understanding customers, anticipating customers' needs and offering assistance.

BA 253 Retailing 3
(Prerequisite: RDG 099 or equivalent) Overview of the retail industry including target market decisions, pricing, store locations, store organization, scheduling of work, loss prevention and safety and strategic planning.

BA 260 Purchasing 3
(Prerequisite: ACCT 101, 101B or permission of program director) 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*
The fiduciary relationship between the real estate agent and the client, ownership rights, law of agency and law of contracts. This course has been certified to earn 30 hours of credit toward the New Mexico Real Estate License Exam.

BA 271 Real Estate Practice *3*
Review of general real estate practice providing basic knowledge of the real estate business. This course has been certified to earn 30 hours of credit toward the New Mexico Real Estate License Exam.

BA 272 Real Estate Appraisal *3*
(Prerequisite: BA 271 or permission of instructor or program director) 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 *3*
(Prerequisite: BA 271) Financing real property, money markets, sources of mortgage money, financial leverage, value of existing mortgage in the current market and purchaser qualification.

BA 274 Real Estate Investment *3*
(Prerequisites: BA 270, 271) Principles for investment decisions, assessment of property potential, and an awareness of the marketplace and the needs of the public.

BA 275 Property Management *3*
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 Mandatory Course *1*
Real estate licensees are updated about 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 *2*
Requirements for ethical behavior and competent performance by appraisers. (7.5 weeks)

Course Credit Hours

BA 280 Fair Housing Law *1*
Issues, regulations, practices and court cases related to fair housing. (5 weeks)

BA 281 Americans with Disabilities Act and Related Handicap Discrimination Law *1*
Issues and guidelines affecting employment, construction and operation of business. (5 weeks)

BA 282 Appraising the Single-family Residence *3*
(Prerequisite: BA 272) Techniques used to estimate the market value of single-family residential property.

BA 283 Rules and Regulations of the New Mexico Real Estate Commission *1*
Current rules and regulations including the intent and the Real Estate Commission's interpretations. (5 weeks)

BA 284 Sales *3*
(Prerequisite: RDG 099 or equivalent) Sales principles, demonstrating selling skills and promoting goods and services.

BA 286 Advertising *3*
(Prerequisite: BA 222 or permission of program director) Develop an advertising plan, select and schedule media, create budgets, design and produce advertisements and evaluate advertising effectiveness.

BA 287 Delta Epsilon Chi Competition *1*
Skills to compete at state and national career development conferences by using sample written tests, role-playing case problems and classroom assignments involving salesmanship, marketing, problem solving and human relations. (3 lab hours a week)

BA 289 Strategic Planning *3*
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 296 Business Topics *1-3*
Current topics in business.

BA 297 Special Problems *Variable*
(Prerequisite: permission of program 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 to the problem. An oral pre-

sentation may be required.

BA 298 Internship 4
(Prerequisites: ACCT 102 or 102B and permission of program director) Students work a minimum of 150 hours at business- or training-related supervised work stations. Students are not paid for their work but are supervised jointly by TVI and the company. (1 theory + 9 lab hours a week)

BA 299 Cooperative Education 4
(Prerequisites: ACCT 102 or 102B and permission of program director) Students work a minimum of 150 hours at business- or training-related supervised work stations. Student trainees are paid by the cooperating firm and supervised jointly by TVI and the employer. (1 theory + 9 lab hours a week)

BA 299A Cooperative Education I 1
Student's first term of employment in an on-going governmental or non-governmental cooperative program. Student must work a minimum of 40 hours and is paid by the employer and supervised jointly by TVI and the employer. (3 lab hours a week)

BA 299B Cooperative Education II 1
(Prerequisite: BA 299A) This course is a continuation of BA 299A for students in their second term of cooperative education. (3 lab hours a week)

BA 299C Cooperative Education III 1
(Prerequisite: BA 299B) For students in their third term of cooperative education. (3 lab hours a week)

BA 299D Cooperative Education IV 1
(Prerequisite: BA 299C) For students in their fourth term of cooperative education. (3 lab hours a week)

BANK 101 Principles of Banking 3
Survey of major aspects of banking from the fundamentals of negotiable instruments to contemporary issues.

BANK 103 Law and Banking Principles 3
Banker's guide to law and legal issues with emphasis on the Uniform Commercial Code.

BANK 105 Consumer Lending 3
Regulations governing credit practices, loan processing, cross-selling and collections.

BANK 107 Analyzing Financial Statements 3
(Prerequisite: ACCT 101A ACCT 101) Financial analysis and skills needed to assess a borrower's ability to repay loans.

BANK 109 Bank Accounting 1
(Prerequisite: ACCT 101A or 101) Describes the accounting and reporting system specifically for commercial banks in the context of their special reporting requirements. (5 weeks)

BANK 111 Personal Financial Management 1
Focus is budgeting and planning techniques on a personal level for eventual use in business situations. (5 weeks)

BANK 113 Bank Simulator 1-3
Computer simulation to devise and implement management goals for a commercial bank in a competitive environment.

BANK 115 Commercial Lending 3
Covers the technical side of commercial lending and important human relations skills.

BANK 296 Financial Services Topics 1-3
Current topics in financial services.

BANK 297 Special Problems Variable
(Prerequisite: permission of program 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 to the problem. An oral presentation may be required.

BANK 298 Internship 4
(Prerequisites: ACCT 101 or 101B and BANK 101 or permission of program director) Students 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 4
(Prerequisites: ACCT 101 or 101B and BANK 101 or permission of program director) Students 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 200 Digital Publishing 3
(Recommended prerequisite: BA 150) Desktop publishing for print and Web, covering PostScript workflows, typography, printing and design history, plus design using PageMaker, QuarkXPress, FreeHand, Illustrator, Photoshop and more. (2 theory + 3 lab hours a week) Course fee: $15 (Previously MMS 220)

BGC 201 Advanced Digital Publishing 3
(Pre- or corequisite: BGC 200 or permission of program director; MMS 255 recommended) Advanced concepts and production techniques for digital publishing for print and Web covering the PDF workflow, practical graphic design techniques and link management. (2 theory + 3 lab hours a week) Course fee: $15

BGC 202 Digital Drawing 3
(Pre- or corequisite: BGC 200 or permission of program director) Advanced training in design and production of printable artwork in FreeHand and Illustrator. Focus is on production techniques for print and Web. (2 theory + 3 lab hours a week) Course fee: $15 (Previously MMS 280)

BGC 203 Production Photoshop 3
(Pre- or corequisite: BGC 200 or permission of program director; MMS 175 recommended) Instruction in design, artwork, halftones, duotones and separations in Photoshop is presented. An introduction to Painter is optional. (2 theory + 3 lab hours a week) Course fee: $15 (Previously MMS 281)

BGC 204 Digital Printing Production 3
(Pre- or corequisite: BGC 202, 203 or permission of program director) Instruction in top-end print production in PostScript environment, utilizing a PDF workflow where possible . Students learn pre-flight, image production, trapping and imposition. (2 theory + 3 lab hours a week) Course fee: $15 (Previously MMS 282)

BIO 100 Introduction to Biology 3
(Prerequisites: MATH 099 and RDG 099 or equivalent) Explores basic concepts through taxonomy, anatomy, cells and tissues and genetics 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) Course fee: $10

BIO 110 Biology for Non-Majors 3
(Prerequisite: RDG 100) Biological principles and current topics for non-biologists or liberal arts students: cellular and molecular biology, microbiology, human genetics, ecology, complexity theory and animal behavior.

BIO 111 Environmental Science 3
(Prerequisite: RDG 100) 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 1
(Prerequisite: RDG 100) Optional lab for investigation of the principles discussed in BIO 111; analysis of water, soil and air pollutants. Moderately strenuous field tips to special interest sites may be scheduled outside regular laboratory hours. Course fee: $20

BIO 112L Biology for Non-Majors Laboratory 1
(Prerequisite: RDG 100, Pre- or corequisite: BIO 110) Optional lab which includes use of microscopes, culturing bacteria, chemical analysis of biomolecules, plant and animal behavior. Course fee: $20

BIO 121/121L Principles of Biology I 4
(Prerequisite: RDG 100. Recommended: MATH 1003, CHEM 111) Basic principles of biology for students wishing to pursue science majors. Cell-level processes including biological chemistry, cell metabolism, photosynthesis, control/transmission of hereditary materials and nucleic acid structure/function. Emphasis on critical thinking skills and scientific methodology. Required enrollment in 3-hour lecture and 3-hour lab. Course fee: $20

BIO 122/122L Principles of Biology II 4
(Prerequisite: BIO 121/121L) Organism-level processes: taxonomy, comparative anatomy/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 3-hour lecture and 3-hour lab. Course fee: $20

BIO 123 Biology for Health Sciences 3
(Prerequisite: RDG 100. Recommended: MATH 160, and CHEM 111, BIO 100 or SCIE 100) Principles of cell biology, cell chemistry, genetics and organismic biology with emphasis on human systems.

BIO 124L Biology for Health Sciences Lab 1
(Pre- or corequisite: BIO 123) Exercises and demon-

strations related to cell biology, biochemical processes and genetics.

BIO 136 Human Anatomy and Physiology for Non-Majors 3
(Prerequisite: RDG 100. Recommended: BIO 100 or CHEM 100) One-term examination of the structure (anatomy) and function (physiology) of the human body. Investigating molecular, cellular, tissue and organ levels and study of organ systems.

BIO 139L Human Anatomy and Physiology for Non Majors Lab 1
(Pre - or corequisite: BIO 136) 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 3
(Prerequisites: BIO 121/121L and 122/122L and either CHEM 111/112L or 121/121L) Cell structure and processes, including structure and function of membranes, the cytoskeleton, the nucleus, DNA replication, gene expression, energy use/production, metabolism, cell receptors, intercellular communication and cancer biology. Fall only.

BIO 221 Introductory Genetics 3
(Prerequisite: BIO 123/124L or 121/121L or permission of instructor. Corequisite: BIO 222) Structure, function and transmission of hereditary factors. Fall, spring only.

BIO 222 Introductory Genetics Problems 1
(Corequisite: BIO 221) Recitation and problem-solving techniques in genetic analysis related to BIO 221. CR/NC only. Fall, spring only.

BIO 223L Introductory Genetics Laboratory 1
(Pre- or corequisites: BIO 221, 222) 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 4
(Prerequisite: RDG 100) Lecture and labs or field trips (one or more overnight) presenting the natural history and identification of southwestern flora and fauna. Required enrollment in 3-hour lecture and 3-hour lab. Course fee: $20. Summer, fall only.

Course Credit Hours

BIO 237 Human Anatomy and Physiology I 3
(Prerequisites: either BIO 123/124L or 121/121L and either CHEM 111/112L or 121/121L) Integrated study of human structure and function that covers the integumentary, skeletal, muscular and nervous systems.

BIO 238 Human Anatomy and Physiology II 3
(Prerequisite: BIO 237) Continuation of BIO 231, covering structure and function of the cardiovascular, respiratory, digestive, urinary, reproductive and endocrine systems.

BIO 239 Microbiology 3
(Prerequisites: either BIO 123/124L or BIO 121, 121L and either CHEM 111/112L or 121/121L. Corequisite: BIO 239L) Concepts of microbiology, host-parasite relationships, infection and immunity.

BIO 239L Microbiology Laboratory 1
(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) Investigation of a variety of techniques designed to facilitate the growth, identification and control of microorganisms. Course fee: $20

BIO 240 Pathophysiology I 3
(Prerequisites: BIO 237, 238, 239, 239L) Introduction to human pathophysiology. Fall only.

BIO 241 Pathophysiology II 3
(Prerequisite: successful completion of BIO 240) Continuation of BIO 240. Spring only.

BIO 247L Human Anatomy and Physiology I Laboratory 1
(Prerequisites: either BIO 123/124L or 121/121L and either CHEM 111/112L or 121/121L. Pre- or corequisite: BIO 237) 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 1
(Prerequisites: either BIO 123/124L or 121/121L and either CHEM 111/112L or 121/121L. Pre- or corequisite: BIO 238) Lab exercises in anatomy and physiology which complement BIO 238, including specimen dissection and cadaver study. Course fee: $20

BIO 260/260L Botany 4
(Prerequisite: BIO 122/122L) Introduction to the diversity of the plant kingdom: algae, bryophyta, pterophyta, gymnosperms and angiosperms; covering plant morphology, anatomy, sexual and asexual reproduction. Required enrollment in 3-hour lecture and 3-hour lab. Course fee: $20

BIO 282 Parasites of the Southwest 3
(prerequisites: RDG 100 and one previous college-level course in biology) 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) Focus on HIV, the causative agent of AIDS, history and origin of the virus, basic immunology, epidemiology and viral biology; in-depth study of the AIDS virus, biological social ramifications of AIDS epidemic. Spring only.

BIO 296 Topics in Biology 3
(Prerequisite: RDG 100) Various topics. See Schedule of Classes.

BKNG 101 Baking Theory I 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Baking fundamentals through scratch production of breads, sweet yeast goods and assorted pastries are introduced. Ingredient function and storage and basic math principles are included.

BKNG 102 Food Service Math 2
(prerequisites: RDG 099 or equivalent, MATH 099 or equivalent, or department approval) Applied math skills for sales, portioning and pricing of food products are analyzed. Cash register fundamentals are stressed.

BKNG 103L Breads 2
(Prerequisites: *FSMG 101A, 101B, RDG 099 or equivalent, MATH 099 or equivalent or department approval)* Fundamentals of mixing and processing ingredients in a variety of pan, Pullman and hearth breads, rolls and buns are covered. (5 lab hours a week = 75 lab hours a term)

BKNG 104L Sweet Yeast Goods 2
(Prerequisites: FSMG 101A, 101B, RDG 099 or equivalent, MATH 099 or equivalent or department approval) Retail production of donuts, sweet rolls, cinnamon rolls, coffee cake and danish, as well as portion control, safety techniques and costing skills, are included. (5 lab hours a week = 75 lab hours a term)

BKNG 105L Cake Batters 2
(Prerequisites: FSMG 101A, 101B, RDG 099 or equivalent, MATH 099 or equivalent or department approval) The processing of ingredients in a variety of cake batters, icings and fillings is presented. 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 2
(prerequisites: FSMG 101A, 101B, RDG 099 or equivalent, MATH 099 or equivalent or department approval) A variety of specialized pastries with emphasis on roll-in doughs and leavening agents are presented. Retail operations and merchandising are stressed. (5 lab hours a week = 75 lab hours a term)

BKNG 111 Baking Theory II 3
(Prerequisites: BKNG 101, 102, 103L, 104L, 105L, 106L or department approval) The principles of Baking I with emphasis on baking chemistry and advanced production procedures are covered. International pastries and desserts with advanced decorating techniques are covered.

BKNG 112L Yeast Doughs 2
(Pre- or corequisite: BKNG 111 or department approval) Supervision, safety techniques and advanced production procedures of a variety of breads, sweet doughs and croissants are covered. (5 lab hours a week = 75 lab hours a term)

BKNG 113L Advanced Cake Batters 2
(Pre- or corequisite: BKNG 111 or department approval) Topics include 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 sculptured cakes and decorations. (5 lab hours a week = 75 lab hours a term)

BKNG 114L Pastries and Cookies 2
(Pre- or corequisite: BKNG 111 or department approval) Advanced production techniques of international pastries, pies and petit fours are presented. The seven different methods of cookie production are emphasized. (5 lab hours a week = 75 lab hours a term)

BKNG 115L Icings and Fillings 2
(Pre- or corequisite: BKNG 111 or department approval) Advanced production techniques of international

buttercreams, fondants, ganache and marzipan are presented. (5 lab hours a week = 75 lab hours a term)

BKNG 296 Special Topics 1-6
(Prerequisite: department approval) Food Service Management and Quantity Foods students pursue specialized needs. The class may be taken as independent or directed study.

BT 177L Metal Framing 3
(Prerequisite: CARP 103 or department approval) Commercial and residential construction design, Uniform Building Code requirements, job site and tool safety and erection of metal buildings are studied and applied. (15 theory + 75 lab hours a term)

BT 178 Remodeling 3
Students are introduced to hand and power tools and the safety measures associated with their use. OSHA regulations and job safety are emphasized. Basic structural, electrical, plumbing and other typical remodeling repair principles and techniques are provided. (15 theory + 75 lab hours a term)

BT 179 Advanced Remodeling 3
(Prerequisite: BT 178 or department approval) Instruction in job site safety, OSHA regulations, design and construction techniques for remodeling and additions to existing buildings is provided. (15 theory + 75 lab hours a term)

CARP 101 Carpentry Blueprint Reading I 4
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Topics include lumber sizing, scaling, centering and triangle theory, interpretation of elevation drawings, floor plans, symbols, notations, dimensions and structural information.

CARP 102 Foundations Theory 1
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Safety and use of hand and power tools, site layout and various methods of concrete foundation construction are introduced.

CARE 102L Foundations Lab 2
(Pre- or corequisites: CARP 101, 102 or department approval) Safety and use of hand and power tools are introduced. Site layout, footing, stemwall and concrete slab construction are covered. (5 lab hours a week = 75 lab hours a term)

CARP 103 Framing Theory 1
(Prerequisites: CARP 101,102 or department approval) The layout of floor, wall, ceiling and roof structural members is covered, as well as blueprint reading and calculation of structural materials in accordance with the Uniform Building Code (UBC).

CARE 103L Framing Lab 2
(Pre- or corequisite: CARP 103 or department approval) Cutting and assembly of structural material for floor, wall, ceiling and roof systems in accordance with the UBC are introduced. Safety is stressed. (5 lab hours a week = 75 lab hours a term)

CARP 104 Exteriors Theory 1
(Pre- or corequisites: CARP 101, 102, 103 or department approval) Provides instruction in the installation of exterior wall and roof finishes, windows and exterior doors in accordance with the UBC.

CARE 104L Exteriors Lab 2
(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 4
(prerequisites: CARP 101, 102, 102L, 103, 103L, 104, 104L, or department approval) Blueprint applications for residential homes, multiple family dwellings and commercial buildings are introduced, along with material estimating and volume measure.

CARP 112 Interior Finish Theory 1
(Pre- or corequisite: CARP 111 or department approval) The focus is on the UBC requirements for the installation of thermal insulation and drywall. Methods of painting, trimming and finishing interiors are covered.

CARE 112L Interior Finish Lab 2
(Pre- or corequisite: CARP 112 or department approval) Hands-on activities are provided 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 1
(Pre- or corequisite: CARP 111 or department approval) Design, layout and construction of wood cabinets are covered.

CARP 113L Cabinet-making and Millwork Lab 2
(Pre- or corequisite: CARP 113 or department approval) Hands-on experiences are assigned 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 1
(Pre- or corequisite: CARP 111 or department approval) Uniform Building Code requirements for remodeling an existing structure are covered.

CARP 114L Carpentry Remodel Lab 2
(Pre- or corequisite: CARP 114 or department approval) Hands-on experiences are offered 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 3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Covers safety and use of hand and power tools. 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 3
Reading and interpreting residential blueprints with emphasis on terminology, symbols, notations, scaling, dimensioning and drawing techniques. Construction methods, materials, calculations for material take-off and estimates are reviewed.

CARP 296 Special Topics 1-6
(Prerequisite: department approval) This course includes an in-depth study of methods and advanced techniques.

CCAP 198 Commercial Carpentry Apprenticeship 40
(Prerequisite: current full-time employment in the carpentry industry or department approval) This course consists of 600 hours of related classroom instruction covering orientation, safety, shop and trade math, commercial carpentry process for shop tools and equipment, supplies and materials, building systems, blueprint reading, concrete, specifications and code interpretation.

CDV 101 Parents and Young Children 3
Study of the interactions of parents and children and diverse family configuration throughout the life cycle. Summer only.

CDV 103 Pre-school Growth and Development 3
(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 4
(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 a week)

CDV 106 Healthy Young Children 3
(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 2
(Prerequisites: RDG 099, ENG 099) Study of 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 3
Assist 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.

CDV 124 Supervised Field Experience 1-5
(Pre- or corequisite: CDV 120 and CDV 120B) Scheduled on-site experience that includes working with children at various early childhood settings, 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 and Development 3
(Prerequisites: RDG 099, ENG 099; corequisite: CDV 127L) Provides 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) Observation in an approved early childhood setting to promote practical application of lecture and text material for CDV 126. (3 hours a week)

CDV 128 Early Childhood Learning Environments I 3
(Prerequisites: RDG 099, ENG 099; pre- or corequisite: CDV 129C) 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 2
(Prerequisite: director approval) Students work in an approved FS or ECME setting to practice competencies learned through coursework and texts. (6 hours a week)

CDV 132 Emergent Literacy in Early Childhood 3
This course provides basic knowledge for promoting young children's language, literacy, investigative and problem-solving activities. The emphasis is in understanding developmental stages and their implications for developmentally appropriate practice. Fall, summer only.

CDV 201 Middle Childhood Growth and Development 3
(Prerequisites: RDG 099, ENG 099) This course 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 3
(Prerequisites: RDG 099, ENG 099) Students examine the development and communication patterns of adolescents within the family setting. Spring only.

CDV 203C Practicum II 2
(Prerequisite: director approval) Students work in an approved FS or ECME setting to practice competencies learned through coursework and texts. (Formerly Early Childhood Practicum CDV 131C) (6 hours a week)

CDV 204 Introduction to Classroom Learning 3
(Prerequisites RDG 099, ENG 099) An introduction to educational psychology and learning. Emphasis is on practical application. Spring only.

CDV 206 Working with Special-needs Children 3
(Prerequisites: RDG 099, ENG 099) Examines the characteristics and educational needs of exceptional children. Surveys definition, etiology and educational alternatives for each of the exceptionalities. (Formerly titled Education of the Exceptional Person) Fall only.

CDV 207 Management of Early Childhood Programs 3
(Prerequisites: RDG 099, ENG 099) Presents knowledge 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 3
(Prerequisites: RDG 099, ENG 099; corequisite: CDV 203C) Focus 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 3
(Prerequisites: RDG 099, ENG 099) Covers positive guidance and discipline techniques; emphasis is on appropriate experiences for the development of autonomy self-esteem and social competency. Fall, spring only.

CDV 212 Special Issues in Child and Family Development 3
(Prerequisite: Must be in final term or have permission of program director; summer and fall graduates may enroll in spring term) Exit seminar course designed to present 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 4
Students explore a variety of early childhood care and

education programs in multicultural settings for typical and atypical children. Students 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 3
(Prerequisites: 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 3
(Prerequisites: 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 3
(Prerequisites: RDG 099, *ENG* 099) Students view 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.

CDV 219 Marriages and Families 3
(Prerequisites: 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 1-3
(Prerequisite: program director approval) A specific problem is defined and studied while working with the instructor.

CDV 299 Cooperative Education 1-3
(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 100 Basics of Chemistry 3
(Recommended pre- or corequisite: MATH 100A or equivalent) For students who did not take high school chemistry. Provides essential background for next level success, in particular BIO 123, BIO 136 and CHEM 111. Includes applied math skills, reading and science study habits. (3 theory hours + 1 lab hour a week)

CHEM 101 Concepts of Chemistry 3
(Prerequisite: ENG 100 *or* RDG 100*)* Non-mathematical introduction to chemistry as it applies to the world, covering qualitative treatment of chemical and physical properties of matter and topics of special interest. Not a preparatory class for other chemistry classes.

CHEM 111 Introduction to Chemistry 3
(Prerequisites: RDG 100, MATH 100A) 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 Lab 1
(Pre- or corequisite: CHEM 111) Three-hour lab. Experiments complementing CHEM 111. Course fee: $20

CHEM 121/121L General Chemistry I 4
(Prerequisites: RDG 100, MATH 120) First of a two-term sequence for students in sciences, engineering or pre-med. Atomic and molecular structure, chemical periodicity, mass and energy relationships and chemical reactions. Required enrollment in 3-hour lecture and 3-hour lab. Course fee: $20

CHEM 122/122L General Chemistry II 4
(Prerequisites: CHEM 121/121L within past three years and MATH 121) Acids and bases, equilibrium, kinetics, thermodynamics, solubility, electro- and nuclear chemistry. Introduction to coordination and organic chemistry. Required enrollment in 3-hour lecture and 3-hour lab. Course fee: $20

CHEM 212 Organic Chemistry and Biochemistry 4
(Prerequisite: CHEM 111/112L or 121/121L) Introduction to 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 5
(Prerequisite: CHEM 122L) Theory and techniques of volumetric, gravimetric, potentiometric, chromatographic and spectrophotometric analysis. Introduction to data-handling and statistics. Three one-hour lectures and six-

hour lab. It is recommended that students complete CHEM 253L within two terms of completing CHEM 122L. Course fee: $40. Spring only.

CHEM 296 Topics in Chemistry *3*
(Prerequisite: RDG 100) Various topics. See Schedule of Classes.

CJ 101 Criminal Law *3*
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Studies include 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) The juvenile court and justice system including the Children's Code and the Rules of Procedure are covered.

CJ 103 Probation and Parole *3*
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) The history, philosophy and legal basis governing investigation and supervision of juvenile offenders and adult violators placed on probation and parole are presented.

CJ 104 Patrol Procedures **3**
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Basic patrol function and the problems faced by law enforcement officers are introduced.

CJ 107 Criminal Procedure *3*
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) This course examines the method of enforcing the substantive criminal law. It 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 **3**
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) This course examines the history of policing, problems with some of the earlier methods, a re-thinking of the basic role of police and using police for problem solving, improving relations with the public and crime prevention with the public.

CJ 109 Introduction to Security Services **3**
Topics include history and development of security services, relationships to the legal process, career roles and operational processes in security operations. The course also helps homeowners make living quarters more secure and covers personal defense, report writing, emergency procedures and defensive driving.

CJ 111 Traffic Investigation and Enforcement *3*
(Prerequisites: CJ 101, 104, 118 or department approval) Included in this course is the study of traffic law enforcement and basic wreck checking. The course progresses to the complete investigation of major accidents.

CJ 112 Criminal Investigation **3**
(Prerequisites: CJ 101, 107, 118 or department approval) Basic criminal investigation is studied from the preliminary investigation to final preparation and presentation in court.

CJ 113 Organized and White Collar Crime **3**
(Prerequisites: CJ 101 and 107 or department approval) Illegal activities of people and institutions whose purpose is profit through legitimate gain through illegal enterprise are studied in this course.

CJ 116 Correctional Services *3*
(Prerequisite: CJ 101 or department approval) The duties and authorities of correctional officers, admission procedures, cell searches, lockdown, penal terminology, key control measures and operations are covered, as well as court decisions dealing with corrections.

CJ 117 Public Policies and Strategies **3**
(Prerequisite: CJ 108 or department approval) Issues and strategies involved in implementing community-oriented policing are examined, including problems in standard operating procedures, police discretion, cadet training, in-service training, community input strategies, civilian review boards and problem solving.

CJ 118 Report Writing **3**
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Police reports, including writing and use of forms, are covered.

CJ 296 Special Topics **1-6**
(Prerequisite: department approval) The in-depth study of problems and the advanced techniques that criminal justice experts use in responding to them are included.

CJ 299 Cooperative Education **3**
The student is employed at an approved course-related

work site and applies learned theory based on goals and objectives. The position is paid by the work-site employer.

CLA 101L Intro to Laboratory Technique 3
(Prerequisites: Phlebotomy director approval, RDG 099 or equivalent, ENG 099 or equivalent, MATH 099 or equivalent; corequisite: CLA 102L) Introduction to basic anatomy and physiology, medical terminology, communications, laboratory math and laboratory techniques using applied theory in urinalysis, serology and microbiology. Safety issues and practices are stressed. Uniform fee: $40 (4 theory and 6 lab hours a week for 7 weeks)

CLA 102L Basic Hematology/Chemistry 3
(Pre- or corequisite: CLA 101L) Instrumentation and the concepts of quality control and calibration; basic techniques using applied theory in hematology and chemistry and the clinical significance of laboratory testing. (4 theory and 6 lab hours a week for 7 weeks)

CLA 103C Clinical Experience 5
(Prerequisites: CLA 101L, 102L) In this clinical practicum students perform urinalysis, serology, microbiology, hematology and chemistry procedures in affiliated medical laboratories. (28 hours a week for 8 weeks)

CM 130 Construction Detailing 3
Basics of construction detailing and working drawing sets. (2 theory + 2.5 lab hours a week)

CM 132L Construction Graphics/ Engineering Methods 3
(Pre- or corequisite: CM 130 or department approval) 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 3
(Pre- or corequisite: CM 130 or department approval) Plan reading, elementary construction techniques, materials and construction documents; primary emphasis is on Uniform Building Code plan check. (3 theory hours a week)

CM 175 General Contractor Preparation 3
Licensing requirements, rules and regulations, business law, the UBC, construction methods and contract management are covered. (3 theory hours a week)

Course Credit Hours

CM 201 Commercial Construction Theory 2
(Prerequisite: CM 277 or department approval) An introduction to commercial drawing sets, including UBC, code compliance and cost per square foot. Commercial and residential buildings are contrasted. (2 theory hours a week)

CM 201L Commercial Construction Lab 3
(Corequisite: CM 201 or department approval) Costs, specifications, codes and personal safety. (7.5 lab hours a week)

CM 256 Statics 3
Through the use of graphic and algebraic formulas, static forces, equilibrium, moments, stress and stain are introduced. Beams and columns in wood, steel and concrete are covered in reference to the UBC and institutional manuals. (3 theory hours a week)

CM 257 Computer Estimating 3
(Prerequisites: CM 171 and CP 176 or department approval) Using software, students complete cost estimates on buildings based on Construction Specifications Institute formatted budgets and take-off techniques. (1 theory + 5 lab hours a week)

CM 261L Construction Surveying 3
(Pre- or corequisite: MATH 123 or department approval) An introduction to 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 3
(Corequisites: CM 277 and MATH 120 or department approval) Large equipment used to move, lift and assemble components of commercial buildings is presented. Earth work, concrete forms and construction are covered, along with steel, wood and masonry methods, productivity, licenses and contract options. (3 lab hours a week)

CM 277 Construction Management, Planning and Estimating 3
(Pre- or corequisite: CM 257 or department approval) Topics include introduction to construction processes, techniques for transforming contract documents and estimating. State-of-the-art scheduling techniques are surveyed, including computer-assisted packages. Students break down a job into its basic tasks and reassemble it in a framework that controls time, work materials and related activities. (3 theory hours a week)

CM 278 Mechanical and Electrical Blueprint Reading 2
Materials and equipment used in the electrical and mechanical systems of commercial building, and associated codes and costs, are introduced. (2 theory hours a week)

CM 296 Topics **2-4**
(Prerequisite: permission of program chair) In-depth study of topics related to construction management.

CM 297 Special Problems *2-4*
(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.

CM 298 Internship *3*
(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.

CM 299 Cooperative Education *3*
(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.

CMPR 102 Offset Theory I *2*
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) This course covers the entire process of offset lithography including basic composition, layout and paste-up techniques, film processing on the process camera, film assembly, platemaking, press and bindery.

CMPR 104L Prepress Lab *2*
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) The printing process, including paste-up techniques, process camera, film assembly and platemaking, are covered, along with shooting halftones and lineshots and stripping for color jobs. Personal safety is stressed. (5 lab hours a week = 75 lab hours a term)

CMPR 105L Press and Bindery Lab *2*
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Procedures for set-up, operation, clean-up and maintenance of offset lithography presses are presented. Initial training is offered in custom ink mixing and basic bindery and finishing, including the operation of the folder and the power cutter. Safety is stressed. (5 lab hours a week = 75 lab hours a term)

CMPR 108L Basic Press Work 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Press adjustments, roller pressure adjustments, cylinder pressure (plate to blanket) and packing cylinders and changing blankets are essentials of the lab experience. Mechanical types and weights of paper stock that affect offset running ability are also covered. (5 lab hours a week = 75 lab hours a term)

CMPR 109L Intermediate Press Work *2*
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Simulating working conditions, time is spent to improve competencies and increase skill level and speed. A final project is taken from design to bindery. (5 lab hours a week = 75 lab hours a term)

CMPR 114L Estimating 2
(Prerequisites: CMPR 102, 104L, 105L, 108L and 109L or department approval) The basics of handling customer jobs, estimating cost and labor for a variety of printing jobs are covered. Making up work orders and charging jobs in a simulated business environment using both catalog and computer methods are presented. (5 lab hours a week = 75 lab hours a term)

CMPR 117L Advanced Prepress Lab 2
(Prerequisites: CMPR 102, 104L, 105L, 108L and 109L or department approval) Topics include hairline, multiple burn stripping using chokes and spreads, creating camera-ready art, flowing graphics from an existing file into a publication and printing finished document. Basic entry-level electronic prepress techniques are stressed. (5 lab hours a week = 75 lab hours a term)

CMPR 170 Commercial Printing Skills Improvement: Basic 3
Individuals with industry experience who need to update their knowledge may review the entire range of offset experience with emphasis on improving quality. (1 theory + 5 lab hours a week = 15 theory + 75 lab hours a term)

CMPR 205L Advanced Press Work 2
(Prerequisites: CMPR 102, 104L, 105L, 108L and 109L

or department approval) Advanced training in press work with emphasis on efficiency and quality, including reducing make-ready and wash-up time. (5 lab hours a week = 75 lab hours a term)

CMPR 206L Process Press Work 2
(Prerequisites: CMPR 102, 104L, 105L, 108L and 109L or department approval) Producing process color on the press, including control densities and tit, is the focus. (5 lab hours a week = 75 lab hours a term)

CMPR 296 Special Topics 1-6
(Prerequisite: department approval) Various problems and the advanced techniques of commercial printing are presented.

COMM 110 Mass Media and Society 3
(Prerequisite: RDG 100. Recommended: ENG 101) Examination of the roles media play in American society and their effects on other forms of communication.

COMM 130 Public Speaking 3
(Prerequisite: RDG 100. Recommended: ENG 101) A blend of theory and practical application. Focus on organizing and delivering, listening and responding to various types of presentations.

COMM 221 Interpersonal Communication Studies 3
(Prerequisites: RDG 100 and ENG 101) Overview of perception, emotions, nonverbal communication, language, listening, defensiveness and relational conflict. Emphasis on developing communication styles and skills to enhance effectiveness in professional and personal relationships.

COMM 223 Introduction to Nonverbal Communication Studies 3
(Prerequisite: RDG 100. Recommended: ENG 101) Examination of how the face and eyes, gestures, touch, voice, physical appearance, space, time and environment communicate in personal and professional interactions.

COMM 225 Small-Group Communication Studies 3
(Prerequisite: RDG 100. Recommended: ENG 101) Examination of group types, characteristics, dynamics, conflicts, norms, roles, leadership, problem solving and decision making in small-group processes.

COMM 232 Business and Professional Communication Studies 3
(Prerequisite: RDG 100. Recommended: ENG 101) Emphasis on developing, organizing and supporting ideas in interpersonal business encounters, groups, teams, meetings, interviews and platform presentations.

COMM 240 Organizational Communication Studies 3
(Prerequisite: RDG 100. Recommended: ENG 101) Communication networks, power and authority, manager/employee relationships, leadership and interviewing in organizational contexts.

COMM 270 Communication Studies for Teachers 3
(Prerequisite: RDG 100. Recommended: ENG 101) Systems approach to classroom communication at any level, providing a means to analyze, develop and facilitate effective communication.

COMM 289 Listening 3
(Prerequisite: RDG 100. Recommended: ENG 101 and COMM 221) Investigation and application of current research in listening theory. Analysis of the appropriateness and applicability of five major types of listening in academic, business, media and interpersonal contexts.

COMM 290 Gender Communication Studies 3
(Prerequisite: RDG 100. Recommended: ENG 101 and COMM 221) Focus 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 3
(Prerequisite: RDG 100. Recommended: ENG 101 and COMM 221) Focus 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 3
(Prerequisite: RDG 100. Recommended: ENG 101 and COMM 221) Examination of 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) Various topics. See Schedule of Classes.

COS 101 Orientation 2
(Prerequisites: ENG 100 or equivalent, RDG 100 or equivalent and MATH 100A or department approval) Introduction to cosmetology. Theory in the areas of professional image, first aid and work ethics.

COS 102 Sterilization/Sanitation/ Bacteriology Theory 1
(Pre- or corequisite: COS 101 or department approval) 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 1
(Pre- or corequisite: COS 102 or department approval) Students develop 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) Topics include 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) Focus is 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)

COS 104 Chemical Rearranging Theory 1
(Pre- or corequisites: COS 103, 103L or department approval) Introduction to anatomy, physiology, preparation, procedures, products, materials and implements related to hair analysis, applied chemistry, client consultation and record keeping.

COS 104L Chemical Rearranging Lab 1
(Pre- or corequisites: COS 103, 103L, 104 or department approval) 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 1
(Pre- or corequisites: COS 104, 104L or department approval) Introductory theory topics related to 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 1
(Pre- or corequisites: COS 104, 104L, 105 or department approval) Basic skill development focused 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 1
(Pre- or corequisites: COS 105, 105L or department approval) Topics include 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 1
(Pre- or corequisites: COS 105, 105L, 106 or department approval) 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 1
(Pre- or corequisites: COS 106, 106L or department approval) Topics include 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 1
(Pre- or corequisites: COS 106, 106L, 107 or department approval) Basic skill development related to safety, preparation, procedures and practices, products, materials and implements, massage, nail techniques, client con-

sultation and recommendations and record keeping. (2.5 lab hours a week = 37.5 lab hours a term)

COS 112 Facials Theory 1
(Prerequisites: COS 107, 107L or department approval) Topics include 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.

COS 112L Facials Lab 1
(Pre- or corequisite: COS 112 or department approval) Basic skill development in safety, preparation, procedures and practice, use of products, materials and implements, facial treatments and makeup application, use of specialized equipment and techniques, eyelash techniques, hair removal, client consultation and 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 1
(Pre- or corequisites: COS 112, 112L, 113 or department approval) Continued 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 1
(Pre- or corequisites: COS 113, 113L or department approval) Continued 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 Rearranging- Perms and Relaxers Lab II 2
(Pre- or corequisite: COS 114L or department approval) Continued 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 3
(Pre- or corequisite: COS 115L or department approval) Continued 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 2
(Pre- or corequisite: COS 116L or department approval) Continued 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)

Course Credit Hours

COS 201L Chemical Rearranging- Perms and Relaxers Lab III 2
(Prerequisite: COS 117L or department approval) 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 4
(Pre- or corequisite: COS 201L or department approval) Intermediate application of scissors, shears, razor and clippers, products, materials and implements in a supervised salon setting. (10 lab hours a week = 150 lab hours a term)

COS 203L Hair Coloring Lab III 1
(Pre- or corequisite: COS 202L or department approval) 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 2
(Pre- or corequisite: COS *203L or* department approval) 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. (5 lab hours a week = 75 lab hours a term)

COS 205L Facials/Manicuring/ Pedicuring Lab III 5
(Pre- or corequisite: COS 204L or department approval) 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. (12.5 lab hours a week = 187.5 lab hours a term)

COS 211 State Laws/Regulations 3
(Prerequisite: COS 205L or department approval) Topics include state laws and regulations, professional image, employability skills, ethics, professional standards, State Board standards, job-seeking and retention skills, customer service, teamwork, problem solving and quality principles. (7.5 lab hours a week = 112.5 lab hours a term)

COS 212 Salon Operation Theory 1
(Pre- or corequisite: COS 211 or department approval) Topics include 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) 1
(Pre- or corequisite: COS 212 or department approval) In cooperation with a TVI-approved employer, the student is exposed 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. This externship may not exceed eight hours per day or one day per week. (2.5 lab hours a week = 37.5 lab hours a term) Course fee: $50

COS 213 Advanced Salon Theory 2
(Pre- or corequisites: COS 212, 212L or department approval) 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 6
(Pre- or corequisite: COS 213 or department approval) 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. (15 lab hours a week = 270 lab hours a term)

CP 100 Introduction to Computer Programming 3
(Prerequisite: MATH 099 or equivalent) 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 6
(Prerequisites: CP 103 and 105) Students write structured programming projects directly related to business and accounting applications. The projects are designed, coded, debugged and executed using a mainframe computer system. (4 theory + 6 lab hours a week) Course fee: $10

Course Credit Hours

CP 103 Mathematics for Computer Programmers 4
(Prerequisite: MATH 100B) Algebra fundamentals are covered along with selected applications in business and management math. Computerized math applications are illustrated. (4 theory hours + 1 lab hour a week)

CP 105 Fundamentals of Computer Programming 5
(Prerequisites: RDG 99 and MATH 100B and CP 176, pre- or corequisite 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 111L Advanced ANSI COBOL 5
(Prerequisite: CP 101L) Skill development continues using the ANSI COBOL language. Emphasis is on sequential and indexed file processing, file maintenance, multi-dimensional table processing, sorts and interactive programming. (4 theory + 6 lab hours a week) Course fee: $10

CP 113 Survey of Computer Animation 3
Beginning with traditional cel animation, this course progresses through building free-hand skills, use of paint software packages, digital media applications and an introduction to 3D computer animation. (2 theory + 3 lab hours a week)

CP 120 Mainframe/Mini Computer Operating Systems 5
(Prerequisite: CP 105) An introduction to operating systems on IBM mainframe and mid-range computers. Topics include: VSE, JCL, MUSIC, and the AS/400 systems. (2 theory + 3 lab hours a week)

CP 132 Introduction to Web Scripting 3
(Prerequisites: CP 105 and MMS 172 or permission of director) Covers the fundamentals of the Common Gateway Interface (CGI) protocol and scripting languages, to include PERL and JavaScript. Use of compiled programs and CGI security concerns are introduced. (2 theory + 3 lab hours a week)

CP 135 Advanced Web Scripting 3
(Prerequisite: CP 132) Skill development continues with focus on integrating scripting into Web designs and structures. Both client and server applications are developed, incorporating many advanced Web page development techniques. (2 theory + 3 lab hours a week)

CP 150 Data Structures 3
(Prerequisite: CP 105 or permission of director) This course explores sequential, random and indexed file structures, multi-dimensional 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 3
(Prerequisites: ENG 101 and CP 177L or permission of director) 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 175L Introduction to C Language Programming 3
(Prerequisite: CP 105 or DDET 115 or a programming language or permission of director) An introduction to C programming language using microcomputers. (2 theory + 3 lab hours a week) Course fee: $10

CP 176 Introduction to Technology Computer Applications 4
(Recommended prerequisite: typing proficiency) Introductory computer hardware and software topics are covered with a mix of lecture and hands-on instruction. Students are introduced to 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 3
(Prerequisites: CP 176 and ART 106 or CP 113. Pre- or corequisite: ART 121 or permission of director) Various topics desirable in industry are explored. Windows 95, Lightwave 3D animation software, modeling, texturing, lighting, animation and other bundled tools are reviewed. 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 3
(Prerequisites: CP 177L and ART 121. Pre- or corequisite: ART 122) Extensive use of Alias 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 3
(Prerequisites: CP 178L and MMS 175 and ART 122 and CP 170) Advanced techniques such as inverse kinematics, constraints, character building, particle emission and dynamic forces are explored. Team project participation is emphasized. 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 3
(Prerequisites: CP 177L and MMS 175 and ART 121; pre- or corequisite: ART 122) The use of Lightwave 3D animation software is expanded to professional applications. Insights into the work environment and employer expectations are emphasized. Additional lab hours outside the regular class time are required. (2 theory + 3 lab hours a week)

CP 181L Introduction to Alias/Wavefront Maya 3
(Prerequisite: CP 178L or permission of director). An introduction to Maya from Alias/Wavefront, a high-end computer program for character animation, scene design and simulation. Students create realistic characters and scenes, as well as a variety of special effects. Course 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 201L Interactive Programming Techniques 3
(Prerequisites: CP 111L and 120) Students develop interactive business applications on the IBM mainframe in the VSE environment. Command level CICS and VSAM file structures are used. (2 theory + 3 lab hours a week)

CP 202L Assembler Language Programming 6
(Prerequisites: CP 101L) Techniques necessary to write Assembler language programs are introduced on an IBM mainframe. (4 theory + 6 lab hours a week)

CP 213 Database Concepts 3
(Prerequisite: CP 105 or 176 or permission of director) General concepts, organization and application of database systems. Introduces database management on the microcomputer. Includes designing databases; accessing, searching and updating files; and designing and producing printed reports. Students 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 3
(Prerequisite: a programming language or permission of director) Introduction to the RPG III/400 programming language used in business organizations. Students become familiar with the basic coding parameters and code a variety of business functions. (2 theory + 3 lab hours a week)

CP 216L. Personal Computer Operating Systems 3
(Prerequisite: CP 105) An introduction to major PC operating systems. Topics include MS-DOS, Windows, Windows 95 and UNIX. (2 theory + 3 lab hours a week) Course fee: $10

CP 217L Personal Computer Assembler Language 3
(Prerequisites: CP 105 and 216L) Introduces Assembler language programming using the microcomputer. (2 theory + 3 lab hours a week) Course fee: $10

CP 218 Introduction to Client/Server Technology 3
(Prerequisite: CP 283) Covers theory of client/server and models of distributed computing. Lab assignments in SQL, FTP, terminal emulation and cross-platform data access are done on a PC LAN with DOS, Windows 95 and NT, as well as an AS/400 and ES-9000 mainframe. (2 theory + 3 lab hours a week)

CP 220 Advanced Database Concepts 3
(Prerequisite: CP 213 or permission of director) Continuation of 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 235 Programming in JAVA 3
(Prerequisite: CP 175L or 281L or 284 or permission of director) Accelerated introduction to JAVA programming language. Covers fundamentals including class design and implementation, the AWT, exception handling, JAVA I/O, threads and event-driven programming for applets and applications. (2 theory + 3 lab hours a week)

CP 236 Systems Life Cycle Analysis 3
(Prerequisites: ACCT 103 and CP 175L and 213 or permission of director) An advanced course on structured techniques of systems analysis and design. The systems life cycle and several methods of analyzing existing systems are covered. Students apply techniques in their analysis of sample and/or local systems. Team project participation is emphasized. (2 theory + 3 lab hours a week)

CP 241 Local Area Network (LAN) Systems Manager 3
(Prerequisite: CP 176 or permission of director) Introduction to network systems management that includes a brief overview of network layouts and topology and instruction on creating workable directories, login scripts, user accounts and menus. (2 theory + 3 lab hours a week) Course fee: $10 [Previously offered as MMS 258]

CP 242 LAN Management 3
(Prerequisite: CP 176 or permission of director) Instruction on the operation and security of a computer network using a specific LAN software. (2 theory + 3 lab hours a week) Course fee: $10 [Previously offered as MMS 262]

CP 243 Advanced LAN Management 3
(Prerequisite: CP 242 or permission of director) Advanced instruction on network performance, troubleshooting and ways to optimize network performance. (2 theory + 3 lab hours a week) Course fee: $10 [Previously offered as MMS 263]

CP 260L. Open GL/Open Inventor 3
(Prerequisites: CP 175L and 177L or permission of director) Covers use of graphics library interface that runs on a wide variety of platforms. Students write graphics applications using the object-oriented 3D graphics developer tool kit. (2 theory + 3 lab hours a week)

CP 261L Image Processing 3
(Prerequisite: CP 175L or permission of director) The use and applications of PC and UNIX-based development environments are covered. Applications include image processing, data manipulation and scientific visualization. (2 theory + 3 lab hours a week)

CP 262 Video Editing/Post Production 3
(Prerequisite: CP 178L or permission of director) Nonlinear video editing techniques are presented. Applications include 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 3
(Prerequisites: CP 105 and 216L or permission of director) An introduction to UNIX with emphasis on running a network. Topics include the UNIX command line,

X-Windows and connection/connectionless networking schemes (TCP/IP and NFS). Wide Area Network data delivery and protocols are introduced. (2 theory + 3 lab hours a week) Course fee: $10

CP 275 Advanced UNIX and WAN Administration 3
(Prerequisite: CP 274L or permission of director) Course involves building and customizing a UNIX host in a network environment and administering it remotely. Remote access protocols (PPP, SLIP, etc.) and the mechanics of remote data delivery are covered. (2 theory + 3 lab hours a week)

CP 278 Advanced C Language Programming 3
(Prerequisite: CP 281L or permission of director) Students with considerable programming experience write programs working with data structures such as stacks, linked lists, binary search trees and self-balancing trees using C++. (2 theory + 3 lab hours a week) Course fee: $10

CP 280L Advanced BPG III/400 3
(Prerequisite: CP 214L) A continuation of CP 214L with emphasis on file processing and interactive techniques. (2 theory + 3 lab hours a week) Course fee: $10

CP 281L C++ Language Programming 3
(Prerequisite: CP 175L or permission of director) Programming principles of the computer language C++ are covered. This is an advanced programming class. (2 theory + 3 lab hours a week) Course fee: $10

CP 282 Networking Topologies/NOS Environments 3
(Prerequisite: CP 176 or permission of director) An introduction to building networks and running a network operating system. Using the OSI model as a guide, students study cabling protocols, data link protocols (Ethernet, FDDI, ATM, etc.) and network protocols (IP and IPX). Switches, bridges, gateways and routers are introduced. (2 theory + 3 lab hours a week)

CP 283 Overview of Network Operating System Environments 3
(Prerequisite: CP 176 or permission of director) An introduction to 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)

Course Credit Hours

CP 284 Introduction to Visual Basic 3
(Prerequisite: CP 105 or a programming language or DDET 115 or permission of director) Introduction to 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 3
(Prerequisite: CP 282 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 NT Server 3
(Prerequisites: CP 176 and MMS 162 or permission of director) Managing single or multiple domains, improving system security and data, and integrating and optimizing a Windows NT Server. (2 theory + 3 lab hours a week) Course fee: $10 [Previously offered as MMS 264]

CP 287 Advanced Visual Basic with Client/Server Applications 3
(Prerequisite: CP284 or permission of director) Constructing advanced applications using Visual Basic, with an emphasis in client/server development. (2 theory + 3 lab hours a week)

CP 296 Topics 3-6
(Prerequisite: permission of director) Topics vary based on the requests from the community and available software, hardware and instructors.

CP 297 Special Problems 3-6
(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 3
(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 3
(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 103 Machine Shorthand I 7
(Prerequisites: RDG 099 or equivalent and AA 101 and 102 or 35 wpm typing speed on five-minute timing; pre- or corequisite: CR 121) Keyboarding and computer-compatible, conflict-free machine shorthand theory are presented. (5 theory + 5 lab hours a week)

CR 104 Machine Shorthand II 7
(Prerequisites: CR 103, CR 121, BA 121) Computer-compatible, conflict-free machine shorthand theory and vocabulary building are presented. Open-exit course. Students may advance to CR 210 after reaching 100 wpm. Enrollment limited to 45 weeks or three terms. (5 theory + 5 lab hours a week)

CR 105 Keyboard Skill-building 2
(Prerequisite: AA 107 or 45 wpm typing speed on five-minute timing) 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 121 Introduction to Court Reporting 3
Overview of court reporting profession includes real-time writing in the courtroom, deposition, classroom, conventions and broadcasting and certification process, testing requirements and the NCRA organization, and skills testing.

CR 122 Word Power 1
Strengthen 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 3
Fundamental rules for punctuating syntax. Presents verbatim English as found in courtroom transcripts and modifies the rules to accommodate this English.

CR 132 Medical Terminology and Anatomy 3
(Prerequisite: RDG 099 or equivalent) A study of medical terminology, using 350 Greek and Latin prefixes, suffixes, word roots, combining forms and human anatomy is presented through video and text.

CR 210 Machine Shorthand III 8
(Prerequisite: CR 104) This course covers vocabulary building, machine shorthand theory, on-the-job considerations, legal procedures, speed-building using testimony, literary and jury charge materials. Open-entry, open-exit course. Students may advance to CR 220 after reaching 140 wpm, literary, and 150 wpm testimony. Enrollment limited to 45 weeks or three terms. (5 theory + 10 lab hours a week)

CR 220 Machine Shorthand IV 8
(Prerequisites: CR 210, CR 132) Medical terminology and dictation, vocabulary building and speed-building are emphasized in this open-entry, open-exit course. Court Reporting students may advance to CR 230 after reaching 160 wpm, literary; 170 wpm, jury charge; and 190 wpm, testimony. Enrollment limited to 45 weeks or three terms. (5 theory + 10 lab hours a week)

CR 230 Machine Shorthand V 8
(Prerequisite: CR 220) Speed-building and vocabulary building are emphasized. Open-entry, open-exit course. Students must pass at least three five-minute takes of literary at 190 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 3
Civil law, criminal law, the judicial system and Latin/legal terminologies. This course is occasionally offered through distance learning.

CR 250 Computer-aided Transcription 3
(Prerequisites: CR 104, BA 150) Production of transcripts on computer-aided transcription software. (2 theory + 3 lab hours a week) Course fee: $10

CR 251 Stenotranscription 3
(Prerequisites: CR 104 and BA 150 or approval of program director) 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 a week) Course fee: $10

CR 252 Medical/Legal Stenotranscription 2
(Prerequisite: CR 251) Students use computer-aided transcription software and stenotranscription skills to transcribe legal and medical documents, correspondence and instruments with correct formatting, punctuation and spacing.

CR 253 Litigation Support 2
Students scan and index documents and transcripts, create and maintain a legal-specific database and print images to CD. (7.5 weeks)

CR 260 Court Reporting Procedures 3
(Prerequisites: CR 220, 250) Depositions, administering oaths, handling exhibits, storing notes and applying ethics.

CR 270 Speed-building/Test Preparation 3
Students need a minimum speed of 180 wpm literary and 225 wpm testimony. Preparation course for the state certification exam. Students speed-build and take two-, three- and four-voice testimony.

CR 296 Topics Course 1-3
Current topics in court reporting and stenotranscription.

CR 297 Special Problems variable
(Prerequisite: permission of program 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 to the problem. An oral presentation may be required.

CR 298 Internship 2
(Prerequisites: CR 250, passage of two five-minute dictation takes at 200 wpm on testimony material and approval of program director) Arranged by program director in student's final term. Student acquires 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 salable transcript.

CR 298A Internship 2
(Prerequisite: CR 251) Arranged by program director in student's final term. Student acquires 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 4
(Prerequisite: CR 210) Students 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)

CSCI 098 Computer Basics 2
(half term) Provides opportunities to develop beginning computer skills. Includes common word processing and spreadsheets tasks and understanding computer system components. Introduces concepts used in many Adult & Developmental Education courses. (4 theory hours a week)

CSCI 100 Basic Keyboarding/Computer Shills 3
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 4
Fundamental computer literacy which introduces computer hardware and software topics with lecture and hands-on instruction: common user applications (word processing, spreadsheets, data bases), operating systems (Windows 3.1 and 95) and networked computers (e-mail and the Web). Typing proficiency useful but not required. Course fee: $10

CSCI 151 Introduction to Computer Programming 4
(Prerequisites: MATH 121 with a grade of B or better and MATH 150) Introductory course 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: $10. (Previously offered as CSCI 155)

CSCI 163 Intermediate Computer Literacy 3
(Prerequisite: CSCI 101 or permission of instructor) Creating graphics and Web documents; research using the Internet. Course fee: $10

CSCI 296 Topics in Computer Science 3
(Prerequisites: RDG 100 and permission of instructor) Various topics. See Schedule of Classes.

CST 150 Introduction to Cultural Studies 3
(Prerequisite: RDG 100) Survey of a range of contemporary topics in global perspective, including gender, race, class and ethnicity. Exploration of non-dominant cultures and non-traditional social issues.

CST 250 A,H,N,S Ethnic Studies 3
(Prerequisite: RDG *100)* Investigation of present-day perspectives and historical and social conditions which have affected the lives of a specific group of American people. Emphasis on 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 3
(Prerequisite: RDG 100) Various topics. See Schedule

of Classes.

DDET 102L Manufacturing Methods 3
(Pre- or corequisite: ENG 101) Introduction to manufacturing methods including machining, fabrication, hot and cold metal working processes, assembly operations and quality assurance. Properties of materials as affected by manufacturing processes are introduced. (3 theory hours + 1 lab hour a week)

DDET 104L Introduction to Technical Drafting 4
(Prerequisite: MATH 120 or ACT math score of 26 or equivalent) An introduction to fundamental drafting techniques including care and use of drafting equipment, lettering, sketching, linework, scaling and geometric construction. (3 theory + 3 lab hours a week)

DDET 106L Basic CADD 3
(Pre- or corequisite: DDET 104L or permission of program advisor) Microcomputer CADD hardware and software are introduced including format and execution of basic command verbs, creation, editing and saving of drawing files, and generation of hard-copy output. (2 theory + 3 lab hours a week) Course fee: $15

DDET 111L Mechanical Detailing 3
(Prerequisite: DDET 104L) Introduction to the development of detail drawings including layout, view selection, notation, dimensioning, ASME Y-14.5 tolerancing and revisions of mechanical parts. (2 theory + 3 lab hours a week)

DDET 115L Intermediate CADD 3
(Prerequisite: DDET 106L; pre- or corequisite: DDET 111L) The student continues use of CADD software in an applied situation. Advanced drawings include insertions, layering, auto-dimensioning and constructing library files. (2 theory + 3 lab hours a week) Course fee: $15

DDET 116L Basic Electronic Drafting 3
(Prerequisite: DDET 104L) Electronic drafting fundamentals including symbolic representation of electronic components and devices, block and connection diagramming, cable drawings and circuit schematics are presented. Basic electronics theory and mathematics applications are included. (2 theory + 3 lab hours a week)

DDET 201L Mathematics of Mechanics 3
(Prerequisite: MATH 121 or 150) A graphical analysis of the relationships among points, lines and planes in space is presented. Advanced applications of trigonometry to dynamic mechanisms and point locations are covered. (2 theory + 3 lab hours a week)

DDET 205L Machine Design Layout 4
(Prerequisites: DDET 111L, 115L; pre- or corequisite: DDET 201L or MATH 123) Application of machine design principles including fixed and removable fastening techniques, dimensioning and tolerancing for assembly; relational functions of bearings, gears, cams, belts, pulleys and shafts; and parts list development. Force vectors and stress and strain are introduced. Layout formats, parts searches and material specifications are made for each design. (3 theory + 3 lab hours a week)

DDET 206L Jig and Fixture Design 4
(Prerequisite: DDET 205L) Focus is the science of three-dimensional location, clamping and holding of work for machining and assembly. Cams, levers, screwlocks, air and hydraulic devices are covered. Students make various designs in the TVI machine shop. (3 theory + 3 lab hours a week)

DDET 211L Electromechanical Drafting 3
(Prerequisite: DDET 205L; pre-or corequisite: DDET 215L) The study, experimentation, design and drafting of electromechanical devices and systems. Principal components of hydraulic, pneumatic drive systems and control devices are covered in a hands-on laboratory. A major design project is required. (1 theory + 5 lab hours a week)

DDET 215L Technical Computer Applications 3
(Prerequisite: DDET 115L) Students use the computer to solve engineering and related problems. Solid modeling is utilized for drawing, designing and engineering problem solving. (2 theory + 3 lab hours a week)

DDET 216L Dimensional Metrology 4
(Prerequisite: DDET 111L or MATT 112) Students make direct and indirect measurements to 50 millionths of an inch. Measurements concentrate on linear and angular units. Equipment used in electrical, decibel and PPM measurements is introduced. Lab work includes SPC and CMM practicums. (3 theory + 3 lab hours a week)

DDET 220L Statics and Strengths of Materials 5
(Prerequisites: DDET 201L or MATH 123 and ENG 119) Students analyze distribution of forces as applied to strengths of materials. Mechanical properties of material are evaluated in laboratory conditions. (3 theory + 5 lab hours a week)

DDET 284 **Geometric Dimensioning and Tolerancing** 3
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 **2-5**
(Prerequisite: permission of program chair) Topics offered depend on requests from the community and available instructors.

DDET 297 Special Problems **2-5**
(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 appropriate to the problem. An oral presentation may be required.

DDET 298 Internship 3
(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 3
(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 101 Data Entry Skill-building 2
(Prerequisites: AA 101 or 35 wpm keyboarding speed on a five-minute timing, RDG 099 or equivalent, ENG 099 or equivalent, MATH 099 or equivalent) The purpose of this open-exit course is development of speed and accuracy for computer data entry applications. (1 theory + 4 lab hours a week for 7.5 weeks)

DETC 103 Manual Shift Transmissions Theory 1
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Shop safety, operation and theory of manual shift transmissions are covered.

DETC 103L Manual Shift Transmissions Lab 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Shop safety, disassembly, evaluation, assembly and adjustment of manual shift transmissions used in trucks are included in this course. Also covered are single and twin countershaft transmissions, auxiliary transmissions and transfer gear cases. (5 lab hours a week = 75 lab hours a term)

Course Credit Hours

DETC 104 Drive Axles, Brakes and Automatic Transmissions Theory 1
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Emphasis is on safety, operation of drive axles and steering axles, air and hydraulic brakes and automatic transmissions.

DETC 104L Drive Axles, Brakes and Automatic Transmissions Lab 3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Shop safety and disassembly, evaluation, assembly and adjustment of automatic transmissions, drive axles, clutches and other drive train components are presented. Air and hydraulic brake system components are disassembled, evaluated and reassembled. (7.5 lab hours a week = 112.5 lab hours a term)

DETC 105 Hydraulic Systems Theory 1
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Emphasis is on safety and operation of hydraulic systems and components.

DETC 105L Hydraulic Systems Lab 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Shop safety, disassembly, evaluation and assembly of hydraulic pumps, valves, actuators and hydraulic circuits used in the heavy-equipment industry are presented. Hydrostatic transmissions and in-line circuit testers are covered. (5 lab hours a week = 75 lab hours a term)

DETC 111 Diesel Engine Overhaul Theory 1
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Emphasis is on four-cycle diesel engine operating principles. Operation and troubleshooting procedures are covered for blocks, crankshafts, camshafts, rods, bearings, pistons, cylinder heads, lubrication systems, cooling systems, fuel systems, air induction and exhaust systems. Job seeking and retention skills are stressed.

DETC 111L Diesel Engine Overhaul Lab 3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Engine disassembly, evaluation and reassembly techniques are covered in this course. Engines are assembled to manufacturer's recommended specifications then operated and adjusted on a test stand. (7.5 lab hours a week = 112.5 lab hours a term)

DETC 112 Precision Measurement and Component Repair Theory 1
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Uses of micrometers and dial indicators are presented. Measurements are done on engines and compared to manufacturer's specifications. Component repair involves disassembly, evaluation and reassembly of units such as blowers, turbochargers, oil pumps, water pumps and fuel transfer pumps.

DETC 112L. Precision Measurement and Component Repair Lab 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval; prerequisite: DETC 102 or department approval; pre- or corequisite: DETC 111) The uses of micrometers and dial indicators are presented. Measurements are done on engines then compared to manufacturer's specifications. Component repair involves disassembly, evaluation and reassembly of units such as blowers, turbochargers, oil pumps, water pumps and fuel transfer pumps. (5 lab hours a week = 75 lab hours a term)

DETC 113 Diesel Engine Tune-up and Testing Theory 1
(Prerequisites: RDG 099, MATH 099 or department approval) Safety, tune-up and diagnostic principles and practices are covered.

DETC 113L. Diesel Engine Tune-up and Testing Lab 2
Engine adjustments and tune-ups are performed on major brands of engines. Troubleshooting skills are practiced on engines in operating condition. (5 lab hours a week = 75 lab hours a term)

DETC 115 Diesel Electronics 3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Principles of electronics are covered along with testing and diagnosis of electronic components used in the diesel industry.

DETC 201 Diesel Electrical Theory 2
Shop safety and diagnosis and troubleshooting procedures of electrical systems and diesel components are covered.

DETC 201L. Diesel Electrical Lab 3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Practice of shop safety and diagnostic and troubleshooting procedures of electrical components and diesel systems. (5 lab hours a week = 75 lab hours a term)

DETC 202 Diesel Fuel Injection Theory 1
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Safety, diagnosis, troubleshooting and repair of fuel injection systems and diesel components are reviewed.

DETC 202L. Diesel Fuel Injection Lab 3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Safety and diagnosis, troubleshooting and repair procedures on fuel injection systems and diesel components are practiced. (5 lab hours a week = 75 lab hours a term)

DETC 203 Transport Refrigeration/ Air Conditioning Theory 1
(prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval; pre- or corequisite: DETC 201 or department approval) Shop safety and diagnostic, troubleshooting and repair procedures of transport refrigeration and air conditioning systems are studied.

DETC 203L. Transport Refrigeration/ Air Conditioning Lab 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Practice of 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 1-6
(Prerequisite: department approval) This course includes an in-depth study of problems and the advanced techniques diesel technicians use in responding to them.

DRFT 100 Introduction to Drafting 3
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)

ECM 101 Web Accounting 3
(Prerequisite: MATH 099) This course introduces World-Wide-Web-based accounting terminology, accounting transactions, credit card accounting, inventory, purchasing, auditing and billing.

ECM 102 Internet Customer Service 3
The course focuses on Web-based customer service for growing and maintaining a loyal customer base, as well as continually attracting new customers. This course includes Web customer service, timely transactions and convenience issues.

ECM 120 Cyber Sales 3
(Prerequisites: MMS 160, BA 113; pre- or corequisite: ECM 102) Internet sales to increase profits, minimize costs, purchase goods and services and improve productivity in a virtual environment. Web business models include storefronts, cybermalls and auctions. (2 theory + 3 lab hours a week) Course fee: $15

ECM 220 Web Marketing 3
(Prerequisites: ECM 102, MMS 160; corequisite: MMS 176) Internet marketing includes designing and communicating for customer loyalty, product or service uniqueness, targeting markets, understanding the five Ps for Internet marketing, examining commercial aspects of the Web, enterprise resource planning, supply chain management and reshaping business and communication in a virtual environment. (2 theory + 3 lab hours a week) Course fee: $15

ECM 223 Online Payment Systems 3
(Prerequisites: ECM 120, MMS 176) Various methods for making electronic payments and cryptographic techniques, as well as characteristics of current payment systems and the role of micropayment systems and electronic cash. (2 theory + 3 lab hours a week) Course fee: $15

ECM 224 Knowledge Management 3
(Prerequisites: ECM 102, MMS 160, 168) This course focuses on collecting and analyzing information for better business decision making using online databases. (2 theory + 3 lab hours a week) Course fee: $15

ECM 226 Online Business Law 3
(Prerequisites: MMS 176, ECM 224) Major legal issues such as electronic information, information security, regulating content/conduct, interstate commerce issues, purchasing issues and online transactions.

ECON 101 Introduction to Economics 3
(Prerequisite: RDG 100) Broad survey of the theories, history and relationships of economics.

ECON 200 Macroeconomics 3
(Prerequisite: RDG 100) Theories and problems of economic policy, including the contrast of the Classical and Keynesian models, money and banking, inflation, unemployment and economic growth.

ECON 201 Microeconomics 3
(Prerequisite: RDG 100) Laws of demand and supply and the workings of the price systems in a free market. Basic economic theory applied to problems of production, monopoly, taxation, consumer welfare and the environment.

ECON 296 Topics in Economics 3
(Prerequisite: RDG 100) Various topics. See Schedule of Classes.

EET 107L Graphics and Analytical Methods 3
(Pre- or corequisite: MATH 150 or 121) Mechanical and electronic drafting methods, including schematic preparation, printed circuit layout, chassis definition and wiring, are studied. Lab time is devoted to techniques required to prepare drawings. Students gain 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 5
(Pre- or corequisites: ENG 101, EET 107L, MATH 150 or 121) Passive DC circuits are analyzed using Ohm's Law, Kirchhoff's Laws, source conversions, network theorems and branch/mesh/nodal analysis. Transient analysis of R-C and R-L circuits is presented along with concepts of energy, power and efficiency. Computers are used. (3 theory + 5 lab hours a week)

EET 113L Structured Computer Programming 3
(Prerequisite: MATH 121 or 150) Beginning computer programming using engineering applications. (2 theory + 2.5 lab hours a week) Course fee: $15

EET 117L Digital Electronics I 3
(Prerequisite: EET 109L) Combinational logic and integrated circuits are analyzed and designed using Boolean algebra, Karnaugh maps and logic diagrams. Number systems, binary codes and code conversions are studied along with flip flops, multivibrators and circuit applications. Lab work emphasizes wiring and troubleshooting skill. (3 theory + 1 lab hours a week)

EET 119L Circuit Analysis II 5
(Prerequisite: EET 109L; pre- or corequisites: ENG 119, MATH 123, 162 or 180) Passive AC circuits with dependent and independent sources are studied along with

network theorems, phasor analysis, AC measurements, power factor analysis/correction, sweep generation usage and Fourier series. Computers are used for complex mathematical problem solving, spreadsheet preparation, graphics, word processing and CAD. (3 theory + 5 lab hours a week)

EET 207L Digital Electronics II *3*
(Prerequisite: EET 117L) Logic circuit decoders, encoders, multiplexers, counters and registers are studied along with ADCs, DACs, RAM, ROM and applications. (3 theory + 1 lab hours a week)

EET 208L Microprocessors **4**
(Prerequisite: EET 113L, pre- or corequisite: EET 207L) Microprocessors and microcomputers are studied in depth with emphasis on machine and assembly language programming. Interrupts and DOS entry points are introduced. (3 theory + 3 lab hours a week)

EET 209L Electronic Devices *5*
(Pre- or corequisite: EET 119L) Diodes, bipolar transistors, FETs and circuits including rectifiers, zener diode regulators, clippers, clampers and amplifiers are studied. Transistor modeling and circuit analysis/design are stressed along with computer use for circuit analysis, spreadsheet preparation, graphics and word processing. (3 theory + 5 lab hours a week)

EET 218L Microprocessor Interfacing *3*
(Prerequisites: EET 208L, 209L) I/O devices including printers, terminals and proto board circuits are interfaced to a microcomputer. Each student makes an oral presentation and prepares documentation describing system operation and organization along with block diagrams, schematics and structured software. (2 theory + 2.5 lab hours a week)

EET 219L Electronic Systems *5*
(Prerequisite: EET 209L) Electronic system schematics are studied along with frequency considerations, decibel usage, differential and operational amplifiers, power supplies, thyristors, PLLs, oscillators and feedback concepts. Each student prepares a technical manual for a computer-controlled system. Video monitor basics and introductory transmission line theory are presented. Computers are used for advanced circuit analysis, instrument control, data logging and word processing. (3 theory + 5 lab hours a week)

EET 296 Topics *3-5*
(Prerequisite: open to advanced Electronics students) The topics depend on requests from the community.

EET 297 Special Problems **3-5**
(Prerequisite: enrolled only in 200-level technical courses and/or 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 computer-aided techniques appropriate to the problem. An oral presentation may be required.

EET 298 Internship *3*
(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 *3*
(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 100 Introduction to Electronics for Technologies/Trades *3*
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 *4*
(Recommended corequisite: ELEC 104 or strong mathematics background or permission of director) The basic concepts of DC electronics with emphasis on Ohm's Law, Kirchhoff's Law, circuit analysis and component application with troubleshooting are covered. In the lab students construct circuits from schematic diagrams and use multimeters. (3 theory + 3 lab hours a week) Course fee: $15

ELEC 103B Electronics Fundamentals B *4*
(Prerequisite: ELEC 103A) Covers the basic concepts of AC electronics with emphasis on Ohm's Law, Kirchhoff's Law, circuit analysis and component application. In the lab students construct, analyze and troubleshoot AC circuits with multimeters, oscilloscopes and function generators. (3 theory + 3 lab hours a week)

ELEC 103L Electronics Fundamentals **8**
(Recommended corequisite: ELEC 104 or strong mathematics background) The basic concepts of DC and AC

electronics with emphasis on Kirchhoff's Law, circuit analysis and component application with troubleshooting are covered. Students use oscilloscopes, function generators and multimeters and construct circuits from schematic diagrams. ELEC 103L = ELEC 103A + ELEC 103B (5 theory + 9 lab hours a week) Course fee: $15

ELEC 104 Electronics Mathematics *5*
(Prerequisite: MATH 100B or sufficient math placement score) Covers algebra and trigonometry and their application to various technologies. (5 theory hours a week)

ELEC 105L Digital Circuits *4*
(Recommended corequisite: ELEC 104 or strong mathematics background) The fundamental concepts and applications of digital logic circuits are covered along with number systems and Boolean algebra. The basic logic gates and MSI, LSI circuits are used to develop operational digital circuits. (4 theory + 1 lab hours a week)

ELEC 111L Introduction to Photonics *4*
(Prerequisite: ELEC 103L; corequisite: ELEC 105L) Fiber optics and optical transducer theory are studied including the basics of laser safety and operation. Laboratory experiments in all three areas strengthen concepts. (3 theory + 3 lab hours a week)

ELEC 114A Semiconductor Devices A **3**
(Prerequisites: ELEC 103L, 104) The basic concepts and applications of semiconductors, rectifier circuits, transistor biasing techniques, AC circuits and transistor regulated power supplies are covered. (2 theory + 3 lab hours a week)

ELEC 114B Semiconductor Devices B *3*
(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 *6*
(Prerequisites: ELEC 103L, 104) Semiconductor devices, diodes, transistors, op-amps and JFETS, and their application in simple power supplies and amplifiers, are introduced. Students construct, analyze and troubleshoot semiconductor circuits. (4 theory + 6 lab hours a week)

ELEC 118L Electromechanical Devices *6*
(Prerequisites: ELEC 103L, 104, 105L) Theory and application of mechanical devices and their control circuits are presented. Topics include 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 **6**
(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. The students build individual buffered interfaces that connect with the PC's I/O backplane for their custom I/O applications. (4 theory + 6 lab hours a week)

ELEC 205L Analog Circuits *6*
(Prerequisite: ELEC 114L) Circuitry involved in an analog system is covered. Discrete transistor circuits and classes of operation are studied. Signal generation and active filters using operational amplifiers are presented. Fundamentals of modulation and demodulation are also covered. (4 theory + 6 lab hours a week)

ELEC 214L Troubleshooting Techniques *3*
(Prerequisite: ELEC 205L or equivalent) Students apply troubleshooting techniques to a complete electronic system. Emphasis is on systematic analysis to locate problems. (2 theory + 3 lab hours a week)

ELEC 217 Upgrading and Repairing PCs **3**
(Recommended corequisite: CP 176 or permission of director) Basic aspects of computer repair, troubleshooting techniques with and without software, modification and replacement are covered. The emphasis is on microcomputers and related hardware. (2 theory + 3 lab hours a week) Course fee: $15

ELEC 220 Digital Signal Processing Systems **6**
(Prerequisites: ELEC 203L, 205L) Covers op amp theory, applications and limitations, analog circuit analysis and filtering techniques, including passive, active and digital filters. Interfacing methods between analog signals and digital computers are presented. Topics include 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 PCs *3*
(Prerequisite: ELEC 217) Includes a more advanced aspect of computer troubleshooting techniques, repair, and modifications. The emphasis of this course is A+ Certification, which is an industry recognized credentia. (2

theory + 3 lab hours a week) Course fee: $15

ELEC 223 **RF/Consumer Electronics** 6
(Prerequisites: ELEC 114L, 205L) An introduction to radio frequency communication theory, circuits and problems. Students will study 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 2
Students use a modern repair center to learn high-reliability soldering and desoldering techniques. Non-destructive printed circuit board repairs and component replacement techniques also are used. (7.5 weeks; 1 theory + 3 lab hours a week) Course fee: $15

ELEC 277L Advanced Soldering Techniques 2
(Prerequisite: ELEC 276L) Students use a modern repair center to learn high-reliability surface mount technology (SMT) soldering and desoldering techniques. The students must have good visual perception. (7.5 weeks; 1 theory + 3 lab hours a week) Course fee: $15

ELEC 279 Electronics Refresher 3
(Prerequisite: completion of an electronics program or equivalent) A review of electronics, including basics, semiconductors, op-amps, digital electronics and microprocessors.

ELEC 282 Pulsed Power 3
(Prerequisite: ELEC 114L or permission of director) The generation, transmission and measurement of high-voltage, pulsed power systems are studied.

ELEC 296 Topics 2-8
(Prerequisite: advanced Electronics student) The topics depend on the requests from the community.

ELEC 297 Special Problems 2-8
(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 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 3
(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.

ELTR 101 Electrical Theory I 4
(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 electricity with emphasis on Ohm's Law, Kirchoff's Law, circuit analysis and troubleshooting. Subject areas include DC and AC theory, symbol identification, schematic reading, circuit application, magnetism, basic transformers, single-phase motors and application of the National Electrical Code.

ELTR 102 Electrical Math I 3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Topics include 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 3
(Pre- or corequisites: ELTR 101, 102 or department approval) Emphasis is placed on safety. Topics include 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 3
(Pre- or corequisites: ELTR 101, 102 or department approval) Subjects include combination circuit analysis, RLC circuitry, DC/AC motors, generators, solid-state components, wiring methods for single pole and three-way switches and application of the National Electrical Code. Safety is stressed. (7.5 lab hours a week = 112.5 lab hours a term)

ELTR 112 Blueprint Reading I 3
(Pre- or corequisite: ELTR 101 or department approval) Instruction is provided in reading and interpreting blueprints and specifications. Emphasis is on terminology, symbols, notations, scaling, dimensioning and basic blueprint drawing techniques.

ELTR 113 Electrical Theory II 4
(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 associ-

ated materials and equipment for residential and light commercial applications.

ELTR 114L. Residential Wiring Lab 3
(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, as well as NEC requirements for residential and light commercial applications. (7.5 lab hours a week = 112.5 lab hours a term)

ELTR 115L Residential Electrical Services 3
(Pre- or corequisites: ELTR 112, 113 or department approval) 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 2
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 1
This theory/lab course provides instruction in the computation and placement of conduit hand benders to bend and install conduit systems in accordance with the NEC and state and local codes. (.5 theory + 2 lab hours a week = 7.5 theory + 30 lab hours a term)

ELTR 173 Industrial Motor Control Circuitry 2
The design, interpretation, drawing and installation of electromechanical relay type motor controls in accordance with the National Electrical Code are presented.

ELTR 174L. Industrial PC Motor Control 3
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 are reviewed and applied. (1 theory + 5 lab hours a week)

ELTR 175 Fiber Optical Cable Installation 2
Introduces the installation of fiber optical cable in various systems. Emphasis is placed on proper installation and termination.

ELTR 176 Electrical Journeyman Preparation 3
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 4
(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 3
(Prerequisite: ELTR 112 or department approval; pre- or corequisite: ELTR 201) This course introduces students to the symbology and method of interpreting and drawing electromechanical motor control circuitry. NEMA standards are studied in detail.

ELTR 204L Industrial Motor Control Lab 3
(Pre- or corequisite: ELTR 203 or department approval) Topics include safety, electromechanical relay-type motor control, momentary push button switches, limit switches, proximity switches, pneumatic timers, forward/reverse starters, three-phase motors and National Electrical Code requirements. (7.5 lab hours a week = 112.5 lab hours a term)

ELTR 205L Industrial Power Distribution 3
(Pre- or corequisites: ELTR 201, 204L or department approval) This lab covers safety, use of mechanical and hydraulic benders, use of power threaders, knock-out punches, hammer drills and powder actuated fasteners, drop-in anchors, cable installation, cutting, splicing and termination, wire pulling and the application of the NEC. (7.5 lab hours a week = 112.5 lab hours a term)

ELTR 211 Industrial Electrical Circuitry and Safety 3
(Prerequisites: ELTR 201, 202, 203, 204L, 205L or department approval) Safety principles and standards used in the electrical field and techniques for electrical troubleshooting are emphasized.

ELTR 212 Programmable Logic Controller Theory 4
(Pre- or corequisites: ELTR 211 or ELEC 103L, 105L or department approval) Topics include the principles of operation of a programmable controller, the numbering systems used by controllers, logic fundamentals and basics of programming.

ELTR 213L PLC Installation and Operation 3
(Pre- or corequisites: ELTR 211, 212 or ELEC 103L, 105L or department approval) Installation and programming of programmable logic controllers in accordance with manufacturer's specifications and NEC requirements. Simulating fundamental industrial control processes with various input and output devices is also covered. (7.5 lab hours a week = 112.5 lab hours a term)

ELTR 214L PLC Systems Operation and Troubleshooting 3
(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 1–6
(Prerequisite: department approval) Provides advanced, in-depth study and research into methods and current technological equipment used in the electrical trades.

EMS 160L Basic Emergency Medical Technician Skills 6
(Prerequisites: BLS CPR certification, RDG 099 or equivalent, MATH 099 or equivalent) Introduction to 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: $40

ENG 096 Special Topics 1-3
Presents various topics in developmental English.

ENG 098 Basic Writing and Reading Skills 3
(Prerequisite: appropriate placement by exam) Focuses on reading and writing in everyday life. Provides practice in studying and reading strategies, paragraph and short-essay writing and sentence construction. Review of English grammar, usage and punctuation. (3 theory hours + 1 lab hour a week)

ENG 099 Practical Writing 3
(Prerequisite: ENG 098 or equivalent) 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)

Course Credit Hours

ENG 100 Essay Writing 3
(Prerequisite: ENG 099 or equivalent) Focuses on writing effective essays through brainstorming, drafting, revising/editing and peer feedback. Practice in developing and organizing ideas into essays. Presents grammar, usage and punctuation in the context of the students' own writing. (3 theory hours + 1 lab hour a week)

ENG 098L ESL Lab 1
For ESL students enrolled in ENG 098, 099 or 100. Teaches students 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 099L ESL Lab 1
For ESL students enrolled in ENG 098, 099 or 100. Teaches students 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 100L ESL Lab 1
For ESL students enrolled in ENG 098, 099 or 100. Teaches students 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 3
(Prerequisite: ENG 100 or equivalent. Recommended: RDG 100) Text-based essay composition, including critical reading, summary writing and synthesis.

ENG 102 Analytic and Argumentative Writing 3
(Prerequisite: ENG 101) Analytic and argumentative writing with readings and research in exposition and literature.

ENG 119 Technical Communications 3
(Prerequisite: ENG 101) Introductory study of written and verbal communication in business and industry.

ENG 150 Study of Literature 3
(Prerequisite: ENG 101 or permission of instructor) Introduction to the study of literature. Fall only.

ENG 206 D, F, S, W Popular Literature 3
(Prerequisite: ENG 101 or permission of instructor)

Analysis of a popular literary form. D: detective novel; F: science fiction; S: espionage fiction; W: western.

ENG 210 Film as Literature 3
(Prerequisite: ENG 101 or permission of instructor) Study of film as visual literature, surveying major trends in the history of film.

ENG 211 Topics in Literature 3
(Prerequisite: ENG 101 or permission of instructor) Various topics. See Schedule of Classes.

ENG 212 Topics in Language and Writing 3
(Prerequisite: ENG 101 or permission of instructor) Various topics. See Schedule of Classes.

ENG 213 D, F, W Film Genres 3
(Prerequisite: ENG 101 or permission of instructor) Survey of film genre or national cinema. D: comedy; F: film noir; W: western.

ENG 219 Technical Writing 3
(Prerequisite: ENG 102) Writing in industry, research laboratories, business and other professional settings.

ENG 220 Expository Writing 3
(Prerequisite: ENG 102) 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) Fiction writing as a creative process.

ENG 222 Creative Writing: Poetry 3
(Prerequisite: ENG 101 or permission of instructor) Poetry writing as a creative process.

ENG 240 Traditional Grammar 3
Survey of 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 3
(Prerequisite: ENG 102 or equivalent) Methods of literary analysis and critical writing applied to literary techniques, conventions and themes. Spring only.

ENG 251 Introduction to Dramatic Literature 3
(Prerequisite: ENG 101 or permission of instructor) Introductory study of structure and nature of drama as a literary form: Greek, Renaissance, Enlightenment and Modern eras. Spring only.

ENG 252 Introduction to Shakespeare 3
(Prerequisite: ENG 101 or permission of instructor) Study of Shakespeare's work: sonnets, tragedies, comedies and histories. Fall only.

ENG 262 Survey of Earlier World Literature 3
(Prerequisite: ENG 101 or permission of instructor) 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 3
(Prerequisite: ENG 101 or permission of instructor) Poetry, fiction and drama from primarily non-English cultures: ca. 1650 to present. Spring only.

ENG 270 Modern Literature 3
(Prerequisite: ENG 101 or permission of instructor) American and European literature of the 20th century.

ENG 282 Modern Latin American Literature 3
(Prerequisite: ENG 101 or permission of instructor) Chronicles, diaries, drama, poetry, essays and fiction of Latin America.

ENG 294 Survey of Earlier English Literature 3
(Prerequisite: ENG 101 or permission of instructor) British literature from Old English to 1798. Fall only.

ENG 295 Survey of Later English Literature 3
(Prerequisite: ENG 101 or permission of instructor) English literature from the late 18th century to the present. Spring only.

ENG 296 American Literature 3
(Prerequisite: ENG 101 or permission of instructor) Short stories, poetry, drama and nonfiction from colonial U.S. to the present.

ENTR 101 Entrepreneurship 6
Tasks and activities are accomplished through lecture, group activities and completion of a business plan.

ENTR 102 Entrepreneurship in a Global Setting 3
(Prerequisite: RDG 099 or equivalent) Small business exporting and importing, market analysis, pricing, financing, marketing, insurance, transportation and distribution of exports/imports and North American Free Trade Agreement (NAFTA) are covered.

EPT 102 Emergency Response 3
Standard first aid and cardiopulmonary resuscitation are offered with Red Cross certification. Other topics are emergency management, hazardous materials, DOT labeling and placarding, decontamination protocols and personal safety.

EPT 111 Environmental Technology I 4
(Prerequisites: MATH 100, ENG 100 or department approval) Introduction to environmental protection methods and their ecological basis. All major areas of environmental concern are covered including air, water, soils and food sanitation.

EPT 112 Hazards and Protection Training 3
(Prerequisite: EPT 213, CHEM 111/112L, computer elective or department approval) Covers safe work practices at hazardous waste sites. Procedures specified by OSHA in the 29 CFR 1910.120 regulation concerning safety and health plans, site characterization and analysis, waste removal and remedial operations are covered. (7.5 lab hours a week = 112.5 lab hours a term)

EPT 131 Materials Categorization and Analysis 4
(Prerequisites: CHEM 111/112L or department approval) Introduces fundamentals of analysis of hazardous and non-hazardous materials. Emphasis is on the use of proper techniques and protocols.

EPT 170 Introduction to OSHA Compliance 3
Everyday application of Occupational Safety and Health Administration (OSHA) standards required in today's workplace is covered.

EPT 171 Introduction to Safety Management 3
Behavioral and management techniques for safety in today's demanding workplace are presented. Topics include planning, budgeting, communications, motivation and people skills.

EPT 172 Introductory Soil Science 3
Soil profiles, standard soil classification systems, elementary soil biology and chemistry, root zone interactions, nutrient cycling and agricultural considerations are reviewed.

EPT 173 Water Quality Protection 3
(Prerequisites: EPT 111, 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 plus 75 lab hours a term)

EPT 174 Basic Site Remediation Technology 3
Major remedial technologies for site cleanup under federal, state and local regulations are emphasized. Physical, biological, chemical and thermal treatments in common use are presented.

EPT 175 Pest Management 3
Multiple pest types--insects, weeds, rodents and fungal pests-are addressed, along with control techniques and impacts on the environment.

EPT 176 Food Resources and the Environment 3
The impact of food resource choices on the quality of the environment and human health is presented. Economic, ecological and social aspects of food resource production and consumption are explored.

EPT 177 Business Aspects of Environmental Technology 3
(Prerequisites: EPT 111, ENG 101, 119) Business aspects of environmental services and consulting are included in the course. The increasingly competitive nature of the environmental business arena is emphasized.

EPT 178 Industrial Hygiene for Environmental Technicians 3
(Prerequisites: CHEM 111/112L) Recognition, evaluation and control of health hazards encountered during hazardous waste clean-up and emergency responses are presented. Personnel monitoring, chemistry, toxicology, pathology and air surveillance are covered.

EPT 179 Sampling Design and Polychlorinated Biphenyl 3
(Prerequisite: EPT 111 or department approval) Practice sampling technique and statistically superior field environmental sampling designs are provided. EPA's Polychlorinated biphenyl (PCB) sampling grid design is covered, as well as regulations, spills and cleanups.

EPT 211L Environmental Technology II/Lab 4
(Prerequisites: EPT 111, BIO 111, CHEM 111/112L, physics elective, math elective or department approval) Technical, operational and regulatory aspects of environmental technology are presented. Identification and handling of biological, chemical and nuclear wastes are presented, as well as site sampling, characterization and assessment, waste removal and site remediation meth-

ods. (2 theory + 5 lab hours a week = 30 theory + 75 lab hours a term)

EPT 212 Energy and Waste Management 3
(Prerequisites: EPT 111, CHEM 111/112L, physics elective, math elective, computer elective or department approval) Orientation to energy and waste management focusing on energy requirement assessments, energy conservation techniques and waste reduction and control.

EPT 213 Occupational Safety 3
Principles and standards of safety are introduced. Basic safety concepts and monitoring procedures are emphasized, culminating in inspections and projects that contribute to the TVI safety program.

EPT 215 Environmental Instrumentation and Analysis 3
(Prerequisites: EPT 111, math elective or department approval; corequisite: EPT 211L) Contemporary instrumentation and techniques are explored in this hands-on introduction to the care and use of laboratory and field-portable instruments. Maintenance, calibration and operation of instruments and meters are covered, along with EPA protocols. (1 theory + 5 lab hours a week = 15 theory + 75 lab hours a term)

EPT 232 Air Quality Protection 1
(Prerequisites: EPT 111, CHEM 111/112L, math elective, computer elective or department approval) Topics include fundamentals of vehicle pollution control, city, state and federal rules and regulations governing air pollution, general and point-source emissions and standard air pollution control methods. (.5 theory + 2.5 lab hours a week = 7.5 theory + 37.5 lab hours a term)

EPT 233 Environmental Bioremediation 4
(Prerequisites: BIOL 121/121L or department approval) Introduction to the basic concepts of bioremediation to detoxify hazardous contaminants.

EPT 270 Air Pollution Meteorology 3
Basic meteorology and climatology, mainly in the Southwest United States, are presented. Applications to ambient air monitoring, dispersion modeling, air discharge permitting, air quality and hazardous waste transport and sampling considerations are emphasized.

EPT 271 Ambient Air Monitoring and Clean Air Act 3
The federal Clean Air Act (CAA) and the EPA's and NMED's regulations and enforcement actions are the focus of this course. Also covered are criteria for the location, construction, instrumentation and operation of meteorological and air chemistry monitoring stations operated for data collection and permit compliance.

EPT 296 Special Topics 1-6
(Prerequisite: department approval) In-depth study of problems and advanced techniques.

EPT 299 Cooperative Education 3
The student is employed at an approved course-related work site and applies learned environmental theory based on goals and objectives. The position is paid by the work-site employer.

ETAP 198 Electrical Trades Apprenticeship 40
(Prerequisite: current full-time employment in the electrical trades industry or department approval) This course consists of 600 hours of related classroom instruction covering safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor controls.

FITT 170 Physical Fitness I 1
Assessment of muscular strength, muscular endurance, cardiorespiratory fitness, flexibility and body composition is introduced. Based on the assessments, the student designs and participates in a self-paced exercise program. (3 lab hours a week = 45 lab hours a term)

FITT 171 Physical Fitness II 1
(Prerequisite: FITT 170) Based 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 1
Structured strength training and aerobics to provide a total body workout within a single format. (3 lab hours a week = 45 lab hours a term)

FITT 174 Weight Training for Women 1
This introductory weight training course designed for women 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 1
For individuals who have never participated in a step aerobics program. Cardiorespiratory fitness, flexibility and body composition are addressed. (3 lab hours a week

= 45 lab hours a term)

FITT 176 Intermediate Step Aerobics 1
(Prerequisite: FITT 175 or department approval) For those who know the proper steps on command. (3 lab hours a week = 45 lab hours a term)

FITT 209 Introduction to Exercise Physiology 3
(Prerequisite: RDG 100 or equivalent; strongly recommended: BIO 100) How the human body responds and adapts to exercise and physical training is introduced. Scientifically based exercise programs are covered 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)

FITT 211 The Business of Personal Fitness Training 3
(prerequisite: ENG 100 or equivalent) This course 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 3
(Prerequisites: FITT 209 and ENG 100 or equivalent) This course 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 3
(Prerequisite: RDG 100 or equivalent) The physiological and kinesiological aspects of muscular fitness training are covered. 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 3
(Prerequisites: FITT 209, 277 and MATH 100A) Methods of assessing health status, cardiorespiratory and muscular fitness, flexibility and body composition in apparently healthy individuals are covered and appropriate exercise programs are prescribed. (2 theory + 2.5 lab hours a week = 30 theory + 37.5 lab hours per term) (Spring only)

Course Credit Hours

FITT 290 Exercise Prescription for Special Populations 3
(Pre- or corequisite: FITT 289) The indications and contraindications are reviewed 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 1-6
(Prerequisite: department approval) Fitness problems and the advanced techniques that fitness professionals use in responding to them are covered.

FITT 298 Fitness Technician Field Experience 3
(Prerequisite: department approval) This course 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 3
The student is employed at an approved course-related work site and applies learned theory based on goals and objectives. The position is paid by the work-site employer.

FREN 101 Beginning French I 4
Beginning course in French language skills, emphasizing listening, comprehension and speaking.

FREN 102 Beginning French II
(Prerequisite: FREN 101 or permission of instructor) Further development of FREN 101 skills.

FREN 201 Intermediate French 3
(Prerequisite: FREN 102 or permission of instructor) Enhancement of skills from FREN 102 and further knowledge of the language and culture of France.

FREN 202 Intermediate French II 3
(Prerequisite: FREN 201 or permission of instructor) Continuation of FREN 201.

FREN 296 Topics in French 3
(Prerequisite: varies) Various topics. See Schedule of Classes.

FS 102 Fire Service Organization 3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) In an orientation to basic management principles used in modern fire pro-

tection organizations, topics include 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 3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) This course 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 3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) A basic overview is presented of fire prevention programs and specific techniques used to reduce the occurrence of fire. Public fire safety education programs and basic concepts of installed fire protection and detection systems are covered.

FS 112 Building Construction 3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Building construction is introduced 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 3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) This course presents an in-depth study of fire protection system design and operation. A variety of fire suppression systems are discussed including water, carbon dioxide, halon, dry chemical and foam.

FS 202 Managing Community Fire Protection 3
(Prerequisite: FS 102 or department approval) Topics include legal aspects, program and personnel management, emergency management, EMS and rescue services, code administration, alternative delivery systems, training and trends in the fire service.

FS 203 Hazardous Materials 3
(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.) Topics include 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 3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Specific incident management techniques for a variety of emergency incidents are covered. The course includes basic fireground and emergency incident operations, incident management systems and multi-agency/multi-jurisdiction response.

FS 212 Fire Investigation 3
(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 3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) In-depth information is presented 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) Emphasis is placed on inspections conforming to NFPA 101: Life Safety Code and applicable NFPA fire codes. General and occupancy-specific requirements are covered.

FS 215 Tactics I 3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) In-depth information is provided on strategy and tactics used by fire officers at emergency incidents. Topics include structural firefighting, rescue, apparatus placement, water supply, ventilation, fire suppression systems, forcible entry and making fireground decisions.

FS 216 Tactics II 3
(Prerequisite: FS 215 or department approval) Topics include high-rise operations, urban search and rescue, wildland fires, aircraft emergencies, hazardous materi-

als, mass casualty incidents and firefighter safety.

FS 296 Special Topics 1-6
(Prerequisite: department approval) Current topics in fire protection and emergency services are presented.

FS 299 Cooperative Education 3
The student is employed at an approved course-related work site and applies learned theory based upon goals and objectives of the Fire Science program. The position is paid by the work-site employer.

FSMG 101A Food Sanitation Principles 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Covers food safety and sanitation. Certification is available in sanitation and American Red Cross standard first aid/adult CPR.

FSMG 101B Applied Food Safety 1
(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 101 Physical Geography 3
(Prerequisite: RDG 100) Introduction to 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 3
(Prerequisite: RDG 100) Introduction to 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 3
(Prerequisite: RDG 100) 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 3
(Prerequisite: RDG 100) Various topics. See Schedule of Classes.

GIS 201 Introduction to Geographic Information Systems 3
(Prerequisites: MATH 120, CP 176, ARDR 180) This course introduces concepts of Geographic Information Systems including applications, components, mapping, topology, data and data capture.

GIS 202 Geographic Information Systems Software Applications I 3
(Prerequisite: GIS 201) The concepts of Geographic Information Systems with computer applications are introduced. Actual projects are developed using the computer and related hardware. (2 theory + 3 lab hours a week)

GIS 203 Geographic Information Systems Software Applications II 3
(Prerequisites: GIS 202, programming language or permission of program chair) In this course students develop individual projects. (1 theory + 5 lab hours a week)

GNHN 121A General Honors: The Ancient Legacy 3
(Prerequisites: See page 30 and permission of instructor) 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: The Modern Legacy 3
(Prerequisites: See page 30 for details; permission of instructor) Analysis of classic texts of Western culture from the Renaissance through the early 20th century: ideas about the individual, society, state, history, nature, progress and religion. Spring only.

GNHN 221 Topics in General Honors 3
(Prerequisites: See page 30 for details; permission of instructor) Various topics. See Schedule of Classes.

HCT 101/101L HCT Phlebotomy Skills and Laboratory 2
(Corequisites: HCT 102L, 103L; prerequisites: RDG 099 or equivalent, ENG 099 or equivalent, MATH 099 or equivalent, program director approval) Theory and skills of basic venipuncture and blood collection techniques, specimen handling and reference procedures are presented. (4 theory + 4 lab hours a week) Uniform fee: $40

HCT 102/102L HCT Health Unit Coordinator Skills and Lab 2
(Corequisite: HCT 101L) Basic skills including medical terminology, abbreviations, communications, 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 4
(Corequisite: HCT 101L) Topics include technical nursing skills such as sterile technique, urinary catheterizations and respiratory care. (4 theory + 8 lab hours per week for 6 weeks)

HCT 110C HCT Phlebotomy Skills Clinical 2
(Prerequisite: HCT 101L; corequisite: HCT 120C) Students apply fundamental phlebotomy techniques within the clinical setting. (30 clinical hours a week for 3 weeks)

HCT 120C HCT Multi-skilled Clinical 2
(Corequisite: HCT 110C) Students apply health unit coordinating and special skills in nursing in a healthcare setting under the supervision of a nurse. (30 clinical hours a week for 3 weeks)

HIST 101 Western Civilization I 3
(Prerequisite: RDG 100. Recommended: ENG 101) Events, personalities, issues, rises and falls, covering ancient times through 1648.

HIST 102 Western Civilization II 3
(Prerequisite: RDG 100. Recommended: ENG 101) Exploration of such topics as colonialism, the age of revolutions, expansionism and the Great Wars from 1648 to the present.

HIST 161 History of the United States I 3
(Prerequisite: RDG 100. Recommended: ENG 101) Survey of economic, political, intellectual and social development of the U.S. from 1492 to 1877.

HIST 162 History of the United States II 3
(Prerequisite: RDG 100. Recommended: ENG 101) Continuation of HIST 161, covering 1865 to the present.

HIST 230 Twentieth-century Russia 3
(Prerequisite: RDG 100. Recommended: ENG 101) Survey of Russian History from czarist absolutism through communist totalitarianism to the tentative introduction of a pluralist society.

HIST 240 Vietnam: War, Politics and Culture 3
(Prerequisite: RDG 100. Recommended: ENG 101) 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.

Course Credit Hours

HIST 260 History of New Mexico 3
(Prerequisite: RDG 100. Recommended: ENG 101) 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 3
(Prerequisite: RDG 100. Recommended: ENG 101) 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 3
(Prerequisite: RDG 100. Recommended: ENG 101) Latin American history from the beginning of the revolutionary period in 1810 to the present.

HIST 296 Topics in History 3
(Prerequisite: RDG 100. Recommended: ENG 101) Various topics. See Schedule of Classes.

HLTH 100 Introduction to Health Occupations 3
Explores various medical careers and introduces medical terminology and selected body systems. Course concepts integrated with the study of anatomy, physiology and patho-physiology. (3 theory hours + 1 lab hour a week)

HT 101 Introduction to Hospitality and Tourism Today 3
(Prerequisite: RDG 099 or equivalent) Organization and structure of hotels, restaurants and clubs, business ethics, franchising, management contracts and areas of management responsibility. Course equivalency AH&MA EI 103.

HT 104 Tourism and the Hospitality Industry 3
(Prerequisite: RDG 099 or equivalent) How and why people travel, how travel acts to satisfy needs and wants, and how marketing efforts can influence travel decisions. Course equivalency AH&MA EI 321.

HT 106 Front Office Procedures 3
(Prerequisite: RDG 099 or equivalent) 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. Course equivalency AH&MA EI 333.

HT 108 Hospitality Supervision 3
(Prerequisite: RDG 099 or equivalent) 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 3
(Prerequisite: RDG 099 or equivalent) 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 3
(Prerequisite: RDG 099 or equivalent) Quality concepts and tools within the hospitality industry. High -performance team building, strategic career plans and managing organizational change. Course equivalency AH&MA EI 303.

HT 126 Hotel/Motel Facilities Management 3
(Prerequisite: RDG 099 or equivalent) Physical plant management of a hotel or restaurant that includes the engineering and maintenance department. Course equivalency AH&MA EI 280.

HT 128 Hotel/Motel Housekeeping Management 3
(Prerequisite: RDG 099 or equivalent) Systematic approach to managing housekeeping operations in the hospitality industry. Course equivalency AH&MA EI 339.

HT 130 Resort Management 3
(Prerequisite: RDG 099 or equivalent) 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 132 Hotel/Motel Human Resources Management 3
(Prerequisite: RDG 099 or equivalent) A systematic approach to human resources management in the hospitality industry and analysis of contemporary issues, practices and trends. Course equivalency AH&MA EI 357.

HT 134 Hospitality Energy and Water Management 3
(Prerequisite: RDG 099 or equivalent) 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.

Course Credit Hours

HT 136 Hospitality Industry Training 3
(Prerequisite: RDG 099 or equivalent) Roles of supervision and training for the tourism and hospitality industry. 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) 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 3
(Prerequisite: RDG 099 or equivalent) 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 371.

HT 144 Hospitality Sales and Marketing 3
(Prerequisite: RDG 099 or equivalent) Marketing within the tourism and hospitality industry. Course includes target markets, marketing plans, advertising and promotion, and identification of emerging trends in consumer preferences and tastes. Course equivalency AH&MA EI 4735.

HT 146 Convention Management and Service 3
(Prerequisite: RDG 099 or equivalent) Convention and group business market, marketing and sales strategies and techniques. Course equivalency AH&MA EI 471.

HT 161 Hotel/Motel Food and Beverage Management 3
(Prerequisite: RDG 099 or equivalent) Challenges and responsibilities involved in managing a food and beverage operation. Course equivalency AH&MA EI 240.

HT 164 Hotel/Motel Food and Beverage 3
(Prerequisite: RDG 099 or equivalent) 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 348.

HT 166 Quality Sanitation Management 3
(Prerequisite: RDG 099 or equivalent) Sanitation man-

agement and risk reduction techniques. Emphasis on quality sanitation and cost control techniques, compliance strategies, and sanitation control points. Course equivalency AH&MA EI 244.

HT 168 Food and Beverage Controls 3
(Prerequisite: RDG 099 or equivalent) 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. Course equivalency AH&MA EI 4645.

HT 170 Food Production Principles 3
(Prerequisite: RDG 099 or equivalent) Helps students master 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 3
(Prerequisite: RDG 099 or equivalent) 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 3
(Prerequisite: ACCT 101A or permission of program director) 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 263.

HT 204 Managerial Accounting for the Hospitality Industry 3
(Prerequisite: ACCT 101A or permission of program director) 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 462.

HT 206 Hospitality Industry Computer Systems 3
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. Course equivalency AH&MA EI 4695.

HT 221 Hospitality Law 3
Various legal considerations facing the tourism and hospitality industry. Topics of study include contractual obligations, torts, labor law, ADA and privacy issues. Course equivalency AH&MA EI 390.

HT 224 Hotel/Motel Law 3
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 3
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 386.

HT 296 Topics Course 1-3
Current topics in hospitality and tourism.

HT 297 Special Problems variable
(Prerequisite: permission of program 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 to the problem. An oral presentation may be required.

HT 298 Internship 4
(Prerequisites: ACCT 101A and permission of program director) Students work a minimum of 150 hours at business- or training- related supervised work stations. Students are not paid for their work but are supervised jointly by TVI and the company. (1 theory + 9 lab hours a week)

HT 299 Cooperative Education 4
(Prerequisites: ACCT 101A and permission of program director) Students work a minimum of 150 hours at business or training related supervised work stations. Student trainees are paid by the cooperating firm and supervised jointly by TVI and the employer. (1 theory + 9 lab hours a week)

HUC 101L Health Unit Clerk Theory and Lab 8
(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 9 weeks)

WC 131C Health Unit Clerk Clinical Practice 4
(Prerequisite: HUC 101L) Supervised clinical experience in local hospitals and hospital out-patient clinics. Uniform fee: $30 (32 hours a week for 4 weeks and 20 hours a week for 1 week)

HUM 111 Early World Civilizations 3
(Prerequisite: RDG 100) 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 3
(Prerequisite: RDG 100) Continuation of HUM 111. History, art, literature, music and ideas of world civilizations from the Renaissance to present.

HUM 247 Topics in Humanities 3
(Prerequisite: RDG 100) Various topics. See Schedule of Classes.

IB 101 Introduction to International Business 3
(Prerequisite: RDG 099 or equivalent) 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.

IB 201 International Marketing 3
(Prerequisite: RDG 099 or equivalent) A conceptual framework for analyzing marketing opportunities abroad and development and implementation of marketing mixes in different cultures and nations.

IB 202 International Management 3
(Prerequisite: RDG 099 or equivalent) Management practices within diverse international operations and understanding how to conduct business with people of different cultures.

IB 203 International Finance and Trade 3
(Prerequisites: RDG 099 or equivalent, ACCT 101 and ACCT 102) Overview of international finance with emphasis on the multinational corporation, foreign exchange risk management, investment analysis, capital asset management, working capital management, comparative advantage, trade restrictions, and a global overview of demographic, technical, social, political and business relationships.

Course Credit Hours

IB 205 Fundamentals of Exporting/Importing 3
(Prerequisite: RDG 099 or equivalent) Forms, country regulations, methods of shipment, rates, documents, quotations, orders, banking, shipping and customs are covered.

IWAP 198 Iron Worker Apprenticeship 30
(Prerequisite: current full-time employment in the iron worker industry or department approval) This course consists of 450 hours of related classroom instruction covering orientation, safety, shop and trade math, tools, equipment, supplies, blueprint reading, layout and code interpretation.

JOUR 151 Writing for the Media I 3
(Prerequisite: ENG 101 or permission of instructor) Practical introduction to journalism, emphasizing journalistic conventions, news gathering and news writing for print and broadcast media.

JOUR 251 Writing for the Media II 3
(Prerequisite: JOUR 151 or permission of instructor) Advanced study in 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 3
(Prerequisite: JOUR 151 and permission of instructor) 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 101 Introduction to Judicial Studies 3
(Prerequisites: ENG 099 or equivalent, RDG 099 or equivalent or approval of director) Designed for court personnel. Presents an overview of 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.

JUD 102 Introduction to Court Operations and Ethics 1
(Prerequisites: ENG 099 or equivalent, RDG 099 or equivalent or approval of director) Presented jointly by Judicial Education Center and TVI faculty. Focuses on ethical and specific court operation issues. Composed of seminars offered throughout the state. Open entry and open exit. Training may be provided to individuals other than court employees; those individuals should contact Judicial Education Center to arrange payment of fees.

JUD 296 Topics Course 1-3
Current topics in judicial studies.

JUD 297 Special Problems variable
(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 to the problem. An oral presentation may be required.

JUD 298 Internship 4
(Prerequisites: JUD 101, 102, COMM 221 or 225, BA 150, ENG 101, elective and approval of director) Students work a minimum of 150 hours at court sites. The student is jointly supervised by TVI and the employer.

JUD 299 Cooperative Education 4
(Prerequisites: JUD 101, 102, COMM 221 or 225, BA 150, ENG 101, elective and approval of director) Students 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.

LAS 101 Introduction to Legal Assistant Studies 3
(Prerequisites: ENG 100 or equivalent, RDG 100 or equivalent or approval of director; recommended prerequisite: BA 150) Definition and role of the legal assistant, ethical responsibilities, human relations, the legal system, legal research and analysis, the process of litigation, technology in the law and topics in substantive law.

LAS 102 Business Organizations 3
(Prerequisites: ENG 100 or equivalent, RDG 100 or equivalent or approval of director; recommended prerequisite: BA 150) Various types of business entities including sole proprietorships, partnerships and corporations, agency principles, franchising and regulatory requirements.

LAS 111 American Law and Ethics 3
(Prerequisites: ENG 101, LAS 101, 102, 123) Origins, nature, history and structure of the American judicial system, principles of federalism under the Constitution and rules of professional conduct for lawyers.

LAS 123 Torts 3
(Prerequisites: ENG 100 or equivalent, RDG 100 or equivalent or approval of director; recommended prerequisite: BA 150) Tort law, concentrating on negligence, products liability, non-physical injuries and their remedies and defenses. Students are given an overview of the trial process and complete a project designed to develop practice skills.

LAS 124 Legal Research and Writing I 3
(Prerequisites: ENG 101, LAS 101, 102, 123) Principles and skills of writing case briefs and legal memoranda, with a focus on basic legal research sources and techniques, including Westlaw and other computer-assisted legal research. Significant time is spent at the UNM law library.

LAS 201 Contract Law 3
(Prerequisites: MMS 134 or 135, ENG 102, LAS 111, 124) Introduction to the law of contracts, rights and responsibilities, consideration, types of contracts, remedies and assignments and the study, analysis and application of cases. Students draft a simple contract.

LAS 203 Civil Litigation 3
(Prerequisites: MMS 134 or 135, ENG 102, LAS 111, 124) Process of civil litigation from initial client contact through post-trial procedures. Rules of civil procedure and rules of the various courts. Students develop a forms and procedures notebook.

LAS 204 Legal Research and Writing II 3
(Prerequisites: MMS 134 or 135, ENG 102, LAS 111, 124) Advanced legal research problems with focus on analysis and writing.

LAS 206 Criminal Litigation 3
(Prerequisites: MMS 134 or 135, ENG 102, LAS 111, 124) Process of criminal litigation from initial appearance through post-conviction proceedings. Drafting documents associated with the prosecution or defense at various stages. Rules of criminal procedure of several courts and development of a forms and procedures notebook.

LAS 211 Real Estate Law for Legal Assistants 3
(Prerequisites: LAS 201, 203 or 206, 204, or approval of director) Fundamental rights of property ownership, surveys, easements and licenses, deeds, titles, financing, closings and regulations.

LAS 221 Wills, Probate and Estate Planning 3
(Prerequisites: LAS 224, 230 or 243) Drafting of wills and trusts, administration of estates, formal and informal probate proceedings and estate tax returns.

LAS 223 Domestic Relations 3
(Prerequisites: LAS 224, 230 or 243, or approval of director) Legal issues in family relations with emphasis on

local procedures in the domestic relations court.

LAS 224 Evidence 3
(Prerequisites: LAS 201, 203 or 206, 204) 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.

LAS 225 Constitutional Law 3
(Prerequisites: LAS 224, 230 or 243, or approval of director) Civil rights and liberties under the Constitution, free speech, religious freedom, racial discrimination, group rights, privacy and political participation.

LAS 230 Civil Litigation II 3
(Prerequisites: LAS 201, 203 or 206, 204, or approval of director) Students participate in a hypothetical case, completing more sophisticated tasks in civil litigation, evidence rules, concepts and objections.

LAS 231 Computers in Law Practice 3
(Prerequisites: BA 150, MMS 134 or 135, LAS 201, 203 or 206, 204) Concepts and applications of computers in the areas of data organization, analysis and retrieval, legal forms, calendar and docket control, reports and searches. (2 theory + 3 lab hours a week) Course fee: $15

LAS 232 Personal Injury Law 3
(Prerequisites: LAS 201, 203 or 206, 204, or approval of director) Medical aspects and documentation of personal injuries in tort, workers' compensation and Social Security disability law.

LAS 233 Law Office Management 3
(Prerequisites: LAS 201, 203 or 206, 204, or approval of director) Prepares students to coordinate and oversee the administrative needs of a small to medium firm and includes managerial techniques, law office systems, revenue tracking, personnel management, crisis resolution and ethical requirements.

LAS 234 Administrative Law 3
(Prerequisites: LAS 201, 203 or 206, 204, or approval of director) Policies, practices and procedures of governmental agencies and state and local administrations.

LAS 236 Employment Law 3
(Prerequisites: LAS 201, 203 or 206, 204, or approval of director) 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.

LAS 242 Native American Law 3
(Prerequisites: LAS 201, 203 or 206, 204, or approval of director) Basic Native American law with the primary purpose of preparing students to work in private law firms that specialize in Native American law and in tribal courts and agencies.

LAS 243 Criminal Litigation II 3
(Prerequisites: LAS 201, 203 or 206, 204, or approval of director) Students participate in a hypothetical case and study evidence rules, concepts and objections.

LAS 244 Social Security Law 1
(Prerequisites: LAS 201, 203 or 206, 204, or approval of director) Representing clients through the Social Security administrative process, disability evaluation, procedural issues and regulations, federal law and medical terminology. (5 weeks)

LAS 245 Bankruptcy Law 1
(Prerequisites: LAS 201, 203 or 206, 204, or approval of director) Introduction to bankruptcy practice, Bankruptcy Code and Rules of Bankruptcy Procedure. (5 weeks)

LAS 294 Mediation 3
(Prerequisites: LAS 224, 230 or 243 and approval of director) 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.

LAS 295 Public Defender 3
(Prerequisites: LAS 201, 203 or 206, 204 and approval of director) Students are assigned to a supervising attorney from the Public Defender's Office. The student works 135 hours and becomes familiar with all forms of case preparation with an emphasis on information gathering and investigation. The course is offered subject to availability of supervising attorney.

LAS 296 Topics Course 3
(Prerequisites: LAS 201, 203 or 206, 204 and approval of director) Student chooses an area of study in consultation with an instructor. A sophisticated legal research paper or project is completed.

LAS 297 Special Problems variable
(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 to the problem. An oral presentation may be required.

LAS 298 Internship 4
(Prerequisites: LAS 224, 230 or 243, all Arts & Sciences courses in the first three terms and approval of director) Students perform a minimum of 150 hours of legal assistant assignments in legal environments. The student is jointly supervised by TVI and the supervising attorney.

LAS 299 Cooperative Education 4
(Prerequisites: LAS 224, 230 or 243, all Arts & Sciences courses in the first three terms and approval of director) Students perform a minimum of 150 hours of legal assistant assignments in legal environments. Student is paid by the cooperating firm and is jointly supervised by TVI and the employer.

LEOT 205L Introduction to Laser Systems 4
(Prerequisite: ELEC 111L) The theory and operation of solid-state and gas lasers are studied. Continuous wave and pulsed systems are discussed. Laboratory exercises provide hands-on operation of various types of lasers. (4 theory + 1 lab hours a week)

LEOT 206 Optics 6
(Prerequisite: ELEC 111L) Lenses and optical systems are studied from the standpoints of geometric and wave optics. Laboratory experiments are performed. (4 theory + 6 lab hours a week)

LEOT 217L Advanced Laser Systems with Applications 6
(Prerequisite: LEOT 205L) The applications of laser systems to industry are covered. Students write a technical paper. Calibration techniques, interferometery and Q-switching are examples of laboratory exercises. (4 theory + 6 lab hours a week)

LPNR 155L Refresher Theory/Lab 7
(Pre- or corequisite: LPNR 165C) Medical-surgical and specialty nursing trends, procedures and pharmacology are covered. (11 theory + 3 lab hours a week) Course fee: $20

LPNR 165C Refresher Clinical Experience 2
(Prerequisite: must have had a valid LPN license; pre- or corequisite: LPNR 155L) Supervised medical-surgical clinical experiences include administration of medications and patient care. This course is offered for credit/no credit. (17.6 clinical hours a week for 5 weeks)

MATH 096 Special Topics 1-3
Presents various topics in developmental math.

MATH 097 Introductory Mathematics 6
(Prerequisite: appropriate placement by exam) Provides individualized and small-group instruction in basic mathematics: whole numbers, fractions, decimals, percents and ratios and proportion. Satisfies prerequisite for MATH 099. (5 theory hours + 3 lab hours a week)

MATH 099 Basic College Mathematics 3
(Prerequisite: MATH 097 or equivalent) 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 099H Basic Math for Health Occupations 3
(Prerequisite: MATH 097 or equivalent) Covers material necessary for the Nursing/Medical Laboratory Technician basic math test: basic arithmetic, the metric system and other measuring systems. Meets prerequisite requirement for MATH 100A. (3 theory hours a week)

MATH 100A Algebraic Problem Solving I 3
(Prerequisite: MATH 099 or equivalent) 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)

MATH 100B Algebraic Problem Solving II 3
(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 and is recommended for MATH 111. (3 theory hours + 1 lab hour a week)

MATH 100 Algebraic Problem Solving 3
(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, MATH 119 and MATH 120. (3 theory hours + 1 lab hour a week)

MATH 111 Mathematics for Elementary and Middle School Teachers I 3
(Prerequisite: MATH 100A) Introduction to 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 3
(Prerequisite: MATH 111) Properties of rational and irrational numbers, real numbers as fractions and decimals, intuitive geometry and measurement.

MATH 119 Methods of Problem Solving 4
(Prerequisite: MATH 100A) 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 4
(Prerequisite: MATH 100B) 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 3
(Prerequisite: MATH 120) Focus on functions and their graphs; investigation of linear, quadratic, polynomial, rational, exponential and logarithmic functions.

MATH 123 Trigonometry 3
(Prerequisite: MATH 121 or 150) Use of 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 3
(Prerequisite: MATH 119 or 120) Illustration of the creative nature of mathematics through problems, readings, discussions of topics such as set theory, logic, number theory, basic geometry and probability.

MATH 145 Introduction to Probability and Statistics 3
(Prerequisite: MATH 119 or 120) 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.

MATH 150 Advanced Algebra 4
(Prerequisite: MATH 121) Exploration of polynomial, rational, exponential and logarithmic functions using graphing calculators.

MATH 162 Calculus I 4
(Prerequisites: MATH 123 and 150) Introduction to derivatives and definite integrals using graphing calculators; differentiation, antidifferentiation, limits, extrema, curve sketching and applications.

MATH 163 Calculus II 4
(Prerequisite: MATH 162) Use of graphing calculators to cover integration techniques, numerical integration, improper integrals, some differential equations, series and applications.

MATH 180 Elements of Calculus I 3
(Prerequisite: MATH 121 or 150) Use of graphing calculators to study limits, derivatives, applications to graphing, extrema, antiderivatives, definite integrals. Emphasis on business and biological applications.

MATH 181 Elements of Calculus II 3
(Prerequisite: MATH 180) Substitution, integration by parts, numerical integration; introduction to multivariate calculus and some differential equations.

MATH 215 Mathematics for Elementary and Middle School Teachers III 3
(Prerequisite: MATH 112) 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 3
(Prerequisite: MATH 180) Basic ideas in probability and statistics: descriptive statistics, sample spaces, random variables, probability densities, expectation, variance, confidence intervals, hypothesis testing, correlation, simple regression analysis. Emphasis on business applications.

MATH 264 Calculus III 4
(Prerequisite: MATH 163) Multivariate and vector calculus: level curves and surfaces, partial derivatives, gradients, tangent planes, directional derivatives, multiple integrals, cylindrical and spherical coordinates, applica-

tions.

MATH 296 Topics in Mathematics 3
(Prerequisite: varies) Various topics. See Schedule of Classes.

MATT 101 Metals Math I 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Whole numbers, fractions and decimals, shop geometry and algebra, formulas and equations, and the Pythagorean theorem are presented. Emphasis is on developing problem solving skills.

MATT 102 Metals Blueprint Reading I 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) The interpretation of basic manufacturing and fabrication drawings, terminology, orthographic projection, sectional views, dimensions, tolerances, symbols and drawing standards are covered.

MATT 103L Basic Lathe Principles 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Introduction to basic engine lathe principles and operations. Safety, setup, speeds and feeds, workholding devices and tooling, facing, turning, chamfering, shouldering and tailstock operations are included. (5 lab hours a week = 75 lab hours a term)

MATT 104L Basic Milling Machine Principles 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Basic milling machine principles and operations are introduced. Safety, basic setup, speeds and feeds, tooling, workholding devices, squaring, step milling, drilling, reaming, and tapping are covered. (5 lab hours a week = 75 lab hours a term)

MATT 105L Basic Supporting Machine Tool Principles 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Drill press, bandsaw, pedestal grinder and handtool principles and operations are introduced. Safety, care and use of hand tools, layout, toolbit grinding and machine care and maintenance are covered. (5 lab hours a week = 75 lab hours a term)

MATT 108L Basic Measurement and Inspection 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Practical exercises are provided 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 2
(Prerequisite: MATT 101 or department approval) Basic shop algebra, formulas, geometry and triangulation are reviewed. Calculation of areas, volumes, material requirements, angles, applied trigonometry and advanced shop math applications are covered.

MATT 113 Metals Blueprint Reading II 2
(Prerequisite: MATT 102 or department approval) Following a review of basic shop blueprint interpretation, instruction is provided in interpretation of complex manufacturing and fabrication drawings including sectional views, tolerances and allowances, surface texture and assembly drawings.

MATT 117L Intermediate Lathe Principles 2
(Prerequisite: MATT 103L or department approval) Basic engine lathe principles and operations are reviewed, 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 2
(Prerequisite: MATT 104L or department approval) Following a review of basic milling principles and operations, training is offered in safety, climb and conventional milling methods, hole production, slotting, pocket milling, rotary table work and basic CNC milling set-up and operation. (5 lab hours a week = 75 lab hours a term)

MATT 121L Intermediate Supporting Machine Tool Principles 2
(Prerequisite: MATT 105L or department approval) Concentrated training is offered in safety, surface grinding, tool reconditioning, production support and advanced quality assurance methods. (5 lab hours a week = 75 lab hours a term)

MATT 122L Computer Numerical Control I 2
(Prerequisites: MATT 101 and 102 or department approval) Basic computer skills necessary to program, set up and operate CNC milling and turning centers are presented. CNC manuscript and tape preparation, program troubleshooting and editing, tooling and workholding and

fundamentals of CNC operation are covered. (5 lab hours a week = 75 lab hours a term)

MATT 173 Machine Tool Technology Skills 3
Basic knowledge and upgrade skills in the machine tool industry are covered, including safety, hand tools, lathe, mill, bench work, measurement, blueprint reading and shop math. (1 theory + 5 lab hours a week = 15 theory + 75 lab hours a term)

MATT 174 Advanced Machine Tool Technology Shills 3
(Prerequisite: MATT 173 or department approval) Advanced instruction is offered in safety, lathe, mill, blueprint reading and shop math. (1 theory + 5 lab hours a week = 15 theory + 75 lab hours a term)

MATT 202 Metallurgy 2
The basic science of metals is introduced, including structure, properties, alloying, weldability and testing of ferrous and non-ferrous metals with emphasis on machining performance and applications.

MATT 208L Advanced Lathe Principles 2
(Prerequisite: MATT 117L or department approval) A review of carbide tooling applications, boring and threading is presented. Safety, setup and use of soft jaws and advanced production and CNC turning techniques are covered. (5 lab hours a week = 75 lab hours a term)

MATT 214 Machine Tool Technology CAD 2
Computer-assisted drafting as applied in machine tool technology is presented on hardware typically found in the machine shop with specific instruction offered in CADKEY software.

MATT 216L Advanced Milling Machine Principles 2
(Prerequisite: MATT 120L or department approval) Rotary table work and locational operations are reviewed. Concentrated training is offered in safety, carbide shell mills, complex milling set-ups and advanced production and CNC milling techniques. (5 lab hours a week = 75 lab hours a term)

MATT 217L Advanced Supporting Machine Tool Principles 2
(Prerequisite: MATT 121L or department approval) Production support, safety, advanced surface grinding set ups and operations, assembly techniques, production inspection techniques to ANSI standards and CNC set-up and operation for production applications are covered.

Course Credit Hours

(5 lab hours a week = 75 lab hours a term)

MATT 218L Computer Numerical Control II 2
(prerequisite: MATT 122L or department approval) Programming, manuscript and tape preparation, and editing are reviewed. Various programming languages, subroutines and interactive graphic programming are presented. (5 lab hours a week = 75 lab hours a term)

MATT 296 Special Topics 1-6
(Prerequisite: department approval) This flexible course enables students to pursue studies in specialized areas. This class may also be taken as an independent or guided study, as a refresher course or to sharpen skills prior to employer exams.

MH 101 Manufactured Housing Customer Service 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) This course provides training in interpersonal skills needed to support successful and professional interaction between manufactured housing employees and customers. (2 theory hours a week = *30* theory hours a term)

MH 102 Manufactured Housing Code and Safety 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) This course provides training in mechanical, building, HUD and Manufactured Housing Division codes as well as safety and OSHA compliance as applied to the manufactured housing industry. (2 theory hours a week = 30 theory hours a term)

MH 103L Manufactured Housing Electrical 1
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) This course provides instruction and hands-on training in electrical safety, OSHA rules and regulations, NRC, HUD and manufactured housing code interpretation, devices, wiring and materials to complete the electrical installation for manufactured housing. (2.5 lab hours a week = 37.5 lab hours a term)

MH 104 Manufactured Housing Plumbing 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) This theory/lab course 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 105 Manufactured Housing Set-up 3
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) This course provides instruction and practice in set-up, leveling, blocking and general carpentry work to meet the requirements for N.M. Manufactured Housing Division MHD 1, 2 and 3 licenses. Safety is emphasized. (1 theory + 5 lab hours a week = 15 theory + 75 lab hours a term)

MH 106 Manufactured Housing Appliance Service 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) This course 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 110L Intro to Medical Technology 3
(Prerequisite: program director approval) Introduction to basic medical laboratory techniques emphasizing urinalysis. Includes principles and procedures of chemical and microscopic analysis of urine, basic immunology, instrumentation, quality control and safety procedures. (2 theory + 3 lab hours a week) Uniform fee: $3 1

MLT 114 Immunology 1
(Pre- or corequisites: MLT 110L, 114C, 201L) A basic study of the body's immune response and introduction to diseases involving deficiencies in the immune system. (2 hours a week for 8 weeks)

MLT 114C Clinical Immunology 1
(Pre- or corequisites: MLT 110L, 114, 201L) An opportunity to perform serological testing on specimens from hospital patients using current methodologies. (6 hours a week for 8 weeks) Course fee: $20

MLT 151C Clinical Experience Urinalysis/ Phlebotomy 3
(Prerequisite: department approval) The practice of procedures learned in urinalysis and phlebotomy at affiliated hospitals. This is a credit/no credit course. Uniform fee $7.50 (6 hours a week)

MLT 201L Clinical Chemistry 7
(Pre- or corequisites: MLT 110L, 114/114C, 204L) The principles and methods used in testing for chemical components in blood and other body fluids including basic instrumentation and laboratory experiences for performing the basic procedures used in a clinical chemistry laboratory. (5 theory + 6 lab hours a week) Course fee: $20

Course Credit Hours

MLT 203L Clinical Hematology/Coagulation 6
(Prerequisites: MLT 110L, 114/114C, 201L, 204L; pre- or corequisites: MLT 151C, 206/206C) Normal and abnormal blood cell enumeration and morphology and coagulation mechanisms including the principles of routine procedures performed in the hematology laboratory. (4 theory + 6 lab hours a week) Course fee: $20

MLT 204L Clinical Immunohematology 3
(Pre- or corequisites: MLT 110L, 114/114C, 201L) Theory principles and test methods for determining blood group typing, antibody detection and identification, cross matching and component therapy. (4 theory + 6 lab hours a week for 7 weeks) Course fee: $20

MLT 205C Clinical Experience 11
(Prerequisites: MLT 110L, 114/114C, 151C, 201L, 203L, 204L, 206/206C; pre- or corequisite: Hum/SS elective) Supervised clinical practice takes place in the clinical laboratories of affiliated hospitals with rotations through hematology/coagulation, microbiology, chemistry and immunohematology departments. This is a credit/no credit course. (40 hours a week for 12 weeks)

MLT 206 MLT Microbiology 3
(Prerequisites: MLT 110L, 114/114C, 201L, 204L; pre- or corequisites: MLT 151C, 203L, 206C) Clinical bacteriology, mycology and parasitology including macroscopic and microscopic identification of organisms, antibiotics susceptibility testing, life cycles, and pathology and etiology of various diseases. Virology is introduced.

MLT 206C Clinical Microbiology 2
(Prerequisites: MLT 110L, 114/114C, 201L, 204L; pre- or corequisites: MLT 151C, 203L, 206) The identification of microorganisms of clinical significance from specimens obtained from hospital patients. Students utilize current methodologies and identification techniques. Course fee: $20 (6 lab hours a week)

MLT 296/296A Topics in Laboratory Medicine 1-4
(Prerequisites: may vary) Various topics in laboratory medicine are presented. Course fee: $20

MMS 134 WordPerfect for Windows 3
(Prerequisite: BA 150 or permission of program director) Word processing software using Windows with emphasis on functions and practical office applications. (2 theory + 3 lab hours a week) Course fee: $15

MMS 135 Microsoft Word for Windows 3
(Prerequisite: BA 150 or permission of program direc-

tor) 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

MMS 140 Data Communications Essentials 3
(Prerequisite: BA 150 or permission of program director) A general understanding of data communications theory. Concepts included are data communications networking terms, components, and applications.

MMS 142 Introduction to Information Management 3
(prerequisite: BA 150 or permission of program director) Provides a broad overview of important topics of information systems that are reviewed from the managerial point of view.

MMS 150 Microsoft Windows 1
Basic elements of Windows with emphasis on software functions. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 151 DOS Fundamentals 1
(Prerequisite: 25 wpm typing skill) DOS commands, internal and external commands, directories, file management and batch files. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 152 Lotus Fundamentals 1
(Prerequisite: 25 wpm typing skill.) Non-accounting spreadsheet applications. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 153 dBase Fundamentals 1
(Prerequisite: 25 wpm typing skill) Function and purpose of database software. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 154 Desktop Publishing Using Word 1
(Prerequisites: knowledge of Word, BA 150 or permission of program director) Integrate Word graphics and text to produce newsletters, instructional materials and other documents. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 156 Office Management Software 1
(Prerequisite: BA 150 or permission of program director) Groupware is used to create, analyze and share information. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

Course Credit Hours

MMS 157 PowerPoint Fundamentals 1
(Prerequisite: 25 wpm typing skill; knowledge of Windows recommended) Basic text charts and graph charts. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 158 Excel Fundamentals 1
(Prerequisite: 25 wpm typing skill; knowledge of Windows recommended) Create, edit and enhance worksheets; format cells; basic formulas and charts. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 159 Access Fundamentals 1
(prerequisite: 25 wpm typing skill; knowledge of Windows recommended) Create database tables, queries, forms and reports. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 160 Introduction to Internet 1
(Prerequisite: MMS 150 or permission of program director) Main features of the Internet that include e-mail, listserve, file transfer protocol (FTP), Gopher and the World Wide Web. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 161 Project Management 1
(Prerequisites: BA 150, MMS 150 or permission of program director) Planning, scheduling, managing and communicating project information. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 162 Windows NT Workstation 1
(Prerequisite: MMS 150 or permission of program director) Configure and optimize a windows NT workstation. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 163 Word Fundamentals 1
(Recommended prerequisites: MMS 150, knowledge of Windows) Create, edit, enhance and merge documents. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 164 Intermediate Windows 1
(Prerequisite: MMS 150 or permission of program director) Emphasis is on Windows 95 interaction with hardware and software to optimally configure and customize computers. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 166 Intermediate Excel 1
(Prerequisite: MMS 158 or permission of program director) Manage multiple worksheets and workbooks, manage data and design forms with Excel. (5 weeks; 2

theory + 3 lab hours a week) Course fee: $5

MMS 167 Advanced Excel 1
(Prerequisite: MMS 166 or permission of program director) Create pivot tables, use advanced data analysis techniques and use Excel with other programs. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 168 Intermediate Access 1
(Prerequisite: MMS 159 or permission of program director) Manage data, create special action queries and tools, add features to forms and add hyperlinks to database. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 169 Advanced Access 1
(Prerequisite: MMS 168 or permission of program director) Create Access Macros, create advanced reports, filter data using parameters and share databases. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 170 Introduction to Multimedia 3
(Prerequisite: BA 150; knowledge of Windows recommended) How text, graphics, sound, images and video come together in a multimedia program. Course fee: $5

MMS 171 Hypertext Markup Language (HTML) 1
(Pre- or corequisites: MMS 150, 160) Format for writing documents viewed with a World Wide Web browser. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 172 Web Construction Coding 1
(Prerequisite: MMS 171 or permission of program director) Advanced HTML markup including forms, image maps, and different programming languages. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 173 Beginning Photoshop 1
(Prerequisite: MMS 150 or permission of program director) Use selection tools to manipulate scanned images, slides and original artwork. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 174 Intermediate Photoshop 1
(Prerequisite: MMS 173 or permission of program director) Use selection, painting tools, and color-correction tools to produce high quality digital images. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 175 Advanced Photoshop 1
(Prerequisite: MMS 174 or permission of program director) Share files and prepare images for Web publications. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 176 Introduction to Internet Commerce 1
(Prerequisites: MMS 160, 172 or permission of program director) Includes legal and ethical use of the Internet, Internet business models, Internet marketing techniques, and secure site requirements. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 177 Extensible Markup Language (XML) 1
(Pre- or corequisite: MMS 171 or permission of program director) 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

MMS 178 Beginning FrontPage 1
(Prerequisite: MMS 160, knowledge of HTML recommended or permission of program director) Plan, create, publish and manage 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

MMS 179 Intermediate FrontPage 1
(Prerequisite: MMS 178 or permission of program director) Create advanced forms, database connectivity, advanced image mapping, e-commerce and secured transactions. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 201 Hardware and Software Administration 3
(Prerequisites: BA 150, MMS 151) Topics include computer viruses, utilities software, DOS and Macintosh operating systems, installation of boards and software integration. (2 theory + 3 lab hours a week) Course fee: $5

MMS 240 Data Management 3
(Prerequisite: MMS 140, 150, 151 or permission of program director) Hands-on experience on data communications networking. Applications included are setting up user accounts, creating directories, login scripts and menus. (2 theory + 3 lab hours a week) Course fee: $10

MMS 241 NetWare 4.11 Data Management 3
(Prerequisites: MMS 140, 150, 151 or permission of program director) Hands-on experience on data com-

munications using NetWare 4.11. Students manage users, groups, login security, trustee assignments, file attributes, printing, login scripts and menus. (2 theory + 3 lab hours a week) Course fee: $10

MMS 242 Windows NT Server Systems Management *3*
(Prerequisites: MMS 140, 150; pre- or corequisite: MMS 162 or permission of program director) User and group management, client and server management and file sharing management. (2 theory + 3 lab hours a week) Course fee: $10

MMS 243 Windows NT TCP/IP Data Communications *3*
(Prerequisite: MMS 242 or permission of program director) TCP/IP, its implementation and the combination of Windows NT and its networking with the TCP/IP suite of communication protocols. (2 theory + 3 lab hours a week) Course fee: $10

MMS 244 Windows NT Data Management 3
(Prerequisite: MMS 242 or permission of program director) Networking protocols, protocol bindings, application layers, managing clients and servers, utilizing user and group accounts and profiles. (2 theory + 3 lab hours a week) Course fee: $10

MMS 250 Business Intranets/Extranets *3*
(Prerequisite: MMS 160 or permission of program director) Basic elements of planning, managing and using business intranets/extranets. (2 theory + 3 lab hours a week) Course fee: $10

MMS 251 Business Operations Management 3
(Prerequisite: BA 150, MMS 150 or permission of program director) Scheduling, production planning and tracking, and forecasting and managing conflicts. (2 theory + 3 lab hours a week) Course fee: $10

MMS 252 Business Database Management 3
(Prerequisites: MMS 142, 169 or permission of program director) Manipulating and designing internal databases and extracting and analyzing data for business decision making. (2 theory + 3 lab hours a week) Course fee: $10

MMS 255 Desktop Publishing *3*
(Prerequisite: BA 150 or permission of program director) Students use microcomputers to edit, typeset, design and do graphic production and page makeup. (2 theory + 3 lab hours a week) Course fee: $15

Course Credit Hours

MMS 256 Advanced Desktop Publishing 3
(Prerequisite: MMS 255) Hands-on experience in advanced 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

MMS 257 Presentation Graphics *3*
(Prerequisite: BA 150 or permission of program director) This course provides hands-on experience in graphics presentation software which emphasizes charting, drawing, organizing and displaying images. (2 theory + 3 lab hours a week) Course fee: $15

MMS 260 Word Processing Macro Programming I
(Prerequisites: BA 150, MMS 134 or 135) The basic procedures for writing and running macros are covered. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 261 Spreadsheet Macro Programming I
(Pre- or corequisite: ACCT 254) The basic procedures for writing and running a macro are covered. (5 weeks; 2 theory + 3 lab hours a week) Course fee: $5

MMS 270 Macromedia Authorware *3*
(Prerequisite: MMS 170 or permission of program director) Interactive multimedia authoring program with emphasis on learning to combine a variety of media. (2 theory + 3 lab hours a week) Course fee: $15

MMS 271 Macromedia Director *3*
(Prerequisite: MMS 170 or permission of program director) Instruction in the use of an interactive multimedia script language to create dynamic multimedia productions. (2 theory + 3 lab hours a week) Course fee: $15

MMS 272 Adobe Premiere 3
(Prerequisite: MMS 270; pre- or corequisite: MMS 271 or permission of program director) Choice and use of appropriate software and media to design and produce a cost effective multimedia presentation. (2 theory + 3 lab hours a week) Course fee: $15

MMS 276 Web Site Design *3*
(Prerequisites: MMS 160, MMS 172, MMS 175 recommended or permission of program director) Uses the elements of communications, marketing, Internet, HTML and scripting to create and publish new Web sites. (2 theory + 3 lab hours a week) Course fee: $15

MMS 296 Topics Course 1-3
Current topics in computers.

MMS 297 Special Problems variable
(Prerequisite: permission of program 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.

MMS 298 Internship 4
(Prerequisites: MMS 270 or 271 or 250 or 251 or 241 or 242 or 257 and permission of program director) Students work a minimum of 150 hours at business- or training-related supervised work stations. Students are not paid for their work but are supervised jointly by TVI and the company. (1 theory + 9 lab hours a week)

MMS 299 Cooperative Education 4
(Prerequisite: MMS 250 or 251 or 270 or 271 or 241 or 242 and permission of program director) Students work a minimum of 150 hours at business- or training-related supervised work stations. Student trainees are paid by the cooperating firm and supervised jointly by TVI and the employer. (1 theory + 9 lab hours a week)

MT 105 Manufacturing Concepts 4
(Prerequisites: ENG 101, CP 176) This is a projects class in which students work as a team applying 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 a week)

MT 205 Applied Science 4
(Prerequisites: ELEC 104 or MATH 120, CHEM 121/121L) Students study some of the basic principles of chemistry and physics, along with the mechanical, chemical and thermal properties of some materials. Applications to high-tech industries such as semiconductor industries are explored. (3 theory + 3 lab hours a week)

MT 280 Introduction to Quality Assurance 3
This course examines the philosophies of Deming, Juran and Taguchi as they apply to quality in the workplace. Total Quality Management (TQM), self-directed teams and teamwork also are studied. (3 theory hours a week)

MT 281 Statistical Controls 3
(Prerequisite: any college algebra) The uses of hardware and software as they apply to quality assurance are featured in this course. Students study design of experiments, sampling techniques, SPC, control chart application and development and process reliability. (2 theory + 3 lab hours a week)

MUS 103 Fundamentals of Music 4
(Recommended: Experience with voice or instrument) Beginning course in fundamentals of music: notation, scales, key signatures and intervals. Introduction to aural comprehension through singing intervals, scales, triads, dictating simple rhythmic and melodic patterns.

MUS 139 Music Appreciation I 3
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 3
Study of symphonic music, chamber music and vocal literature from the Romantic period to the 20th century. Nontechnical; required attendance at live musical performances.

MUS 296 Topics in Music 3
Various topics. See Schedule of Classes.

NA 101 Nursing Assistant Theory 4
(Prerequisites: enrollment in the program, RDG 099 or equivalent, ENG 099 or equivalent, MATH 099 or equivalent; corequisites: NA 110L, 131, 161, 171) During the first nine weeks students attend classes covering basic nursing skills used in health care agencies and homes. Other topics covered are medical terminology, home care issues and community resources.

NA 110L Nursing Assistant Lab 1
(Corequisites: NA 101, 131, 161, 171) Students practice basic nursing skills in the laboratory. (5 lab hours a week for 5 weeks) Uniform fee: $35

NA 121C Nursing Assistant Clinical Experiences 3
Successful completion of NA 101, 110L, 131, 161 and 171 is required 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 3
(Corequisite: NA 101, 110L, 161, 171) This course includes introductions to anatomy and physiology and nutrition. The basic structure and normal functions of the body systems and some of the aging problems which can

occur in those systems are covered.

NA 161 Nursing Assistant Issues
(Corequisite: NA 101, 110L, 121C, 131, 171) Special topics are covered such as nutrition labs, blood pressure practice, lab practice and lab finals.

NA 171 Nursing Assistant-Applications 3
(Corequisites: NA 101, 110L, 131, 161) Basic math is reviewed 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.

NAHA 102L Nursing Home/Home Health Attendant Theory/Lab 5
(Corequisite: NAHA 102C) Includes basic nursing skill necessary to work in a nursing home, rehabilitation center or private home. Personal care and restorative care skills are taught in a lab setting. (11 theory + 9 lab hours a week for five weeks) Uniform fee: $22

NAHA 102C Nursing Home/Home Health Attendant Clinical 1
(Pre- or corequisite: NAHA 102L) Basic nursing skills are practiced in a supervised long-term care setting. (25 hours a week for 2 weeks)

NURS 115 Dosage Calculations 1
(Prerequisites: Nursing Basic Math Test and nursing director approval) Presents methods of dosage calculations for oral and parenteral medications, including intravenous therapy and pediatric dosages. Offered for CR/NC only.

NURS 126C Foundations of Nursing 9
(Prerequisites: nursing director approval, BIO 237/247L, ENG 101, PSY 105, NUTR 244; corequisites: NURS 115, BIO 238/248L, PSY 220) Foundations of nursing are reviewed including an introduction to the nursing process with a focus on assessment. Key concepts of basic and higher order needs within a caring framework are developed. 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: $140

NURS 127C Family Nursing I 9
(Prerequisites: BIO 238/248L, NURS 115, 126C, PSY 220; pre- or corequisites: BIO 239/239L, PHIL 245M) Using nursing process, the child-bearing and child-rearing family are studied. Clinical: experiences with maternity and pediatric clients in community and hospital settings. (5 hours theory + 12 hours clinical) Course fee: $25

NURS 202C Concepts for Transition Students 2
(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) Conceptual framework of the nursing program and study of the nursing process are introduced. 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, summer only. (1 hour theory + 3 hours clinical)

NURS 226C Family Nursing II 10
(Prerequisites: Calculation Exam II with score of 90% or better, NURS 127C, BIO 238/248L, BIO 239/239L; pre- or corequisite: NURS 231; corequisite: NURS 227) Continued 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) Course fee: $20

NURS 227 Manager of Care 1
(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 3
(Prerequisites: Permission of director of nursing, BIO 238/248L, NURS 126C; pre- or corequisite: BIO 239/239L) Concepts necessary for nursing judgment in the use of chemical agents and the theoretical base required to administer medications are introduced. Information covers drugs in current use, including pharmacokinetics, pharmacodynamics, therapeutic uses, adverse reactions, precautions and contraindications. Course fee: $10

NURS 247C Complex Health Problems in the Family 9
(Prerequisites: Calculation Exam III with score of 90% or better, NURS 226C, 227C, 231, elective) Study of 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) Course fee: $15

NURS 280 Critical Care Internship Theory 8
(Prerequisite: Nursing director approval) 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 3
(Prerequisite: Nursing director approval, corequisite: NURS 280) Application of 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) Course fee: $15

NURS 296 Topics in Nursing 1-10
(Prerequisites: may vary) Various topics in nursing are presented.

NUTR 120 Personal and Practical Nutrition 3
Personal, practical view of topics in nutrition of concern to the consumer: individual nutrient needs, fitness, disease prevention and weight control. Emphasis on changes of nutritional needs through the life cycle.

NUTR 244 Human Nutrition 3
(Prerequisite: CHEM 111/112L or 121/121L or BI 121/121L or 123/124L) Nutrition as it affects normal body function and total health. Designed for health majors.

NUTR 293 Topics in Nutrition 3
Various topics. See Schedule of Classes.

OCC 096 Special Topics 1-3
Presents various occupational topics.

PC 201 Electromechanical Systems 3
(Prerequisites: ELEC 114L, 118L) Use of electromechanical systems donated by local industries to expose students to equipment schematics, maintenance procedures and troubleshooting. Students practice preventive and corrective maintenance. (2 theory + 3 lab hours a week) Course fee: $25

PC 203 PLC Theory and Applications 2
(Prerequisites: ELEC 203L, 205L or permission of director) Topics include ladder logic diagrams, PLC hardware, software and applications of PLCs. A series of PLC lab exercises and a PLC project are required. (7.5 weeks; 2 theory hours + 3 lab hours a week) Course fee: $25

Course Credit Hours

PC 204 Feedback Theory and Applications 2
(Prerequisites: ELEC 203L, 205L) Topics include various types of feedback systems, components and operation. The applications of such systems are studied. (7.5 weeks; 2 theory hours + 3 lab hours a week) Course fee: $25

PC 205 Sensor Theory and Applications 2
(Prerequisites: ELEC 203L, 205L) Topics include force, photonic and temperature sensors. A project designed and constructed by students is required. (7.5 weeks; 2 theory + 3 lab hours a week) Course fee: $25

PC 206 CIM Theory and Applications 2
(Prerequisites: ELEC 203L, 205L) Topics include theory of computer integrated manufacturing (CIM), CIM systems used in industry and the programming and operation of such systems. (7.5 weeks; 2 theory + 3 lab hours a week) Course fee: $25

PC 207 Mobile Robot Design and Construction 2
(Prerequisites: ELEC 203L, 205L) Topics include micro-controllers, DC motors, motor drive circuitry and communications technology. A project designed and constructed by students is required. (7.5 weeks); 2 theory + 3 lab hours a week) Course fee: $25

PC 208 Industrial Robot Theory and Applications 2
(Prerequisites: ELEC 203L, 205L) Theory, operation and maintenance procedures of industrial robots are included along with a project (utilizing an industrial robot system) designed and constructed by students. (7.5 weeks; 2 theory + 3 lab hours a week) Course fee: $25

PC 211 Power RF 2
(Prerequisite: ELEC 114L) RF energy and its applications in manufacturing industries are presented. Topics include plasma physics, RF applications, safety, RF generators, transmission lines and RF interference. (7.5 weeks; 2 theory + 3 lab hours a week) Course fee: $25

PC 212L Vacuum Systems 2
(Prerequisite: ELEC 118L) This is a study of vacuum technology and vacuum systems. Topics include gas laws and properties, operation and applications of vacuum pumps, gauges and valves and systems leak detection. (7.5 weeks; 2 theory + 3 lab hours a week) Course fee: $25

PHIL 110 Introduction to Philosophical Thought 3
(Prerequisite: RDG 100. Recommended: ENG 101) Survey of the philosophical issues addressed by great thinkers of the western tradition. Questions about knowledge, reality, goodness, the idea of God, government and society and the self.

PHIL 156 Logic and Critical Thinking 3
(Prerequisite: RDG 100) Introduction to the tools of reason helpful in everyday decision making, skills for argument analyses and effective communication of ideas. Survey of informal fallacies and formal deductive systems.

PHIL 241 Topics in Philosophy 3
(Prerequisite: RDG 100) Various topics. See Schedule of Classes.

PHIL 245 B, M, T Ethics 3
(prerequisite: RDG 100) Discussion of ethical problems that may arise in specific fields. B: business; M: biomedical; T: technology.

PHIL 250 Philosophy of Education 3
(Prerequisite: RDG 100) Critical examination of classical and contemporary educational theories and philosophical movements in education. Emphasis on the relationship of philosophical theory and educational practice.

PHIL 257 Formal Logic 3
(Prerequisite: RDG 100) Introduction to formal deductive logic: propositional logic, truth tables, argument forms and fallacies, predicate (symbolic) logic and method of proof.

PHLB 101 Introduction to Phlebotomy 4
(Prerequisites: enrollment criteria for the program, RDG 099 or equivalent, ENG 099 or equivalent, MATH 099 or equivalent; corequisite: PHLB 122C) Includes basic anatomy and physiology and procedures for collecting blood from patients. (10 theory + 15 lab hours a week for 4 weeks)

PHLB 122C Clinical Phlebotomy 3
(Prerequisite: CPR certification; corequisite: PHLB 101) Supervised clinical course in which students practice phlebotomy skills and apply theory learned in class. Uniform fee: $40. (30 hours a week for 4 weeks)

PHYS 102 Introduction to Physics 3
(Prerequisite: RDG 100. Recommended: MATH 100B) Survey of basic concepts and phenomena of physics.

PHYS 151 Physics I 4
(Prerequisites: RDG 100 and MATH 121, 150 or 180. Corequisite: PHYS 153L. Recommended: Working knowledge of trigonometry) Non-calculus treatment of mechanics, sound and heat. Satisfies pre-medical, predental, pre-optometry and certain Technologies requirements.

PHYS 151L Physics I Laboratory 1
(Prerequisite: RDG 100. Corequisite: PHYS 151) Real-time experiments in mechanics, heat and sound. Computer data collection and analysis. (Previously offered as PHYS 153L)

PHYS 152 Physics II 4
(Prerequisites: RDG 100 and PHYS 151. Corequisite: PHYS 154L) Non-calculus treatment of electricity, magnetism and optics.

PHYS 152L Physics II Laboratory 1
(Prerequisite: RDG 100. Corequisite: PHYS 152) Experiments in electricity, magnetism and optics. Some computer simulations and data collection. (Previously offered as PHYS 154L)

PHYS 160 General Physics I 4
(Prerequisite: RDG 100. Pre- or corequisite: MATH 162. Recommended: co-enrollment in PHYS 160L) Calculus-based study of mechanics and sound waves for science and engineering students.

PHYS 160L General Physics Laboratory I 1
(Recommended: co-enrollment in PHYS 160) Real-time experiments in mechanics and waves. Computer data collection and analysis. Course fee: $20

PHYS 161 General Physics II 4
(Prerequisite: PHYS 160. Pre- or corequisite: MATH 163) Calculus-based treatment of heat, electricity and magnetism for science and engineering students.

PHYS 161L General Physics Laboratory II 1
(Pre- or corequisite: PHYS 161) Experiments in electricity, magnetism, optics. Course fee: $20

PHYS 262 General Physics III 4
(Prerequisite: PHYS 161. Pre- or corequisite: MATH 264) Calculus-based treatment of optics and topics in

modern physics for science and engineering students.

PLAP 198 Plumbing Apprenticeship *40*
(Prerequisite: current full-time employment in the plumbing industry) This course consists of 600 hours of classroom instruction covering safety, shop and trade math, plumbing processes, blueprint reading and mechanical code (plumbing) interpretation.

PLMB 101 Basic Plumbing Theory 1
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Procedures for installing plastic, steel, cast iron and copper pipe are covered. Installation, addition, repair, replacement or maintenance of plumbing and gas piping systems are also covered. Personal safety is stressed.

PLMB 101L Basic Plumbing Lab 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Identification of plumbing fittings and pipe nomenclature is covered. The correct procedures for soldering copper pipe, threading and cutting iron pipe, flaring copper pipe and making diagonal offsets are covered. (5 lab hours a week = 75 lab hours a term)

PLMB 102 Plumbing Systems Theory 1
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Design of drainage and vent systems, sprinkler and water supply systems is covered, as well as methods to rough in and top out of an installation.

PLMB 102L Plumbing Systems Lab 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Correct procedures for installation, repair and service of drainage and vent, sprinkler and water supply systems are introduced. Rough-ins and top outs are also covered. (5 lab hours a week = 75 lab hours a term)

PLMB 103 Heating Control Circuitry Theory I 1
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Troubleshooting of heating control circuitry, control theory, terminology and symbols are covered with emphasis on electrical control devices from various manufacturers.

PLMB 103L Heating Control Circuitry Lab 1
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) The focus is on installation and troubleshooting of heating control circuitry.

Course Credit Hours

The correct use of electrical test instruments is stressed, as is safety. (3 lab hours a week = 45 lab hours a term)

PLMB 105 Plumbing Blueprint Reading I 1
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Topics include sketching and reading blueprint working drawings for new construction, maintenance and remodeling.

PLMB 106L Backflow Prevention 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Identification, testing and repair of backflow prevention assemblies is the focus. (5 lab hours a week = 75 lab hours a term)

PLMB 111 Systems Layout/Maintenance Theory I 1
(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 2
(Pre- or corequisites: PLMB 106L, 111 or department approval) The emphasis is on layout and installation of water, soil and vent lines, related fixtures and fittings, inspecting and testing systems and soldering. (5 lab hours a week = 75 lab hours a term)

PLMB 112L Systems Maintenance Lab 2
(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 installation and service. (5 lab hours a week = 75 lab hours a term)

PLMB 115 Plumbing Blueprint Reading II 2
(Prerequisite: PLMB 105 or department approval) Content includes drawings, isometric pipe layouts, interpreting blueprints, application of plumbing codes, and planning and coordinating the job.

PLMB 116L Building Maintenance, Heating and Cooling 1
(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 Mechanical Trades Math 1
Topics include basic arithmetic, whole numbers, fractions and decimals. Volumes, weight measurements and basic algebra as it applies to electricity are also covered.

PLMB 171 Journeyman Preparation 3
Licensing requirements, rules and regulations and the Uniform Plumbing Code are covered for persons interested in becoming journey level plumbers and natural gas fitters in New Mexico.

PLMB 173L Orbital Welding Systems 3
(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 3
(Prerequisite: PLMB 173L) Asahi Butt Fusion System, UF 2000 infrared fusion and bead and crevice free system are presented. (1 theory + 5 lab hours a week = 15 theory + 75 lab hours a term)

PLMB 296 Special Topics 1-6
This flexible course is designed to enable students currently in the plumbing trades to pursue studies in specialized areas. This class also may be taken as an independent or guided study or as a refresher to sharpen skills prior to licensing.

PN 126C Foundations of Practical Nursing 9
(Prerequisites: nursing director approval, BIO 237/247L, ENG 101; corequisites: NURS 115, BIO 238/248L, NUTR 244) A study of 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: $130

PN 127C Family Nursing 8
(Prerequisites: BIO 238/248L, NURS 115, PN 126C, NUTR 244; pre- or corequisites: PSY 105, PN 131) Using nursing process, study of the child-bearing and child-rearing family. Clinical focuses on maternity and pediatric clients in community and hospital settings. Includes nursing care of clients with prevalent oncological conditions across the life-span. (4 hours theory, 12 hours clinical) Course fee: $25

Course Credit Hours

PN 128C Nursing of the Family with Complex Problems 13
(Prerequisites: Calculation Exam II with score of 90% or better, PN 127C, PN 131, PSY 105; corequisite: PN 129) Continued study of the family, using nursing process, focusing on the impact of illness on clients and their families. Clinical focuses on medical and surgical clients with multisystem health problems in acute and long-term health care settings. (8 hours theory, 15 hours clinical) Course fee: $20

PN 129 Trends and Issues in Practical Nursing 1
(Corequisite: PN 128C) 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 131 Pharmacology 2
(Prerequisites: BIO 238/248L, PN 126C; corequisite: PN 127C) Focus is on the effects of commonly used drugs on various body systems. Dosages, application, side effects and/or toxicity, laboratory tests performed to monitor actions, and effects of specific drugs are discussed integrating nursing implications and responsibilities. Course fee: $10

PRNS 255L Perioperative Nurse Specialist Theory/Lab 5
(Prerequisite:' Program Chair approval; pre- or corequisite: PRNS 265C) Presents history and philosophy of perioperative nursing, the surgical environment, perioperative care, intraoperative care and postoperative care. Skills are practiced in a mock operating room laboratory. (6 theory + 6 lab hours a week for 12 weeks) Course fee: $35

PRNS 265C Perioperative Nurse Specialist Clinical Experience 4
(Corequisite: PRNS 255L) Application of new and previously learned concepts to perioperative nursing in hospital operating rooms. (24 clinical hours a week for 12 weeks)

PSCI 110 The Political World 3
Introduction to politics, emphasizing how people can understand their own political systems and those of others.

PSCI 200 U.S. Politics 3
Survey of American politics: theory of democracy and political institutions, governmental branches and their bureaucracies.

PSCI 210 State and Local Politics 3
Analysis of state and local politics, using New Mexico and other states as examples. Fall, spring only.

PSCI 220 Comparative Government and Politics 3
Comparison of the roles of public opinion, electoral systems, political parties, interest groups, governmental institutions and policy performance in European democracies, developing third world nations and communist political systems.

PSCI 240 International Politics 3
Various significant factors in international politics: nationalism, ideology, deterrence, balance of power, international law and international conflict and collaboration.

PSCI 260 Political Ideas 3
Classical and contemporary political ideas and ideologies; introduction to many of the enduring political issues which are presented in descriptive, analytical and normative terms. Fall only.

PSCI 296 Topics in Political Science 3
Various topics. See Schedule of Classes.

PSY 105 Introduction to Psychology 3
(Prerequisite: RDG 100) Psychology as the scientific study of behavior and mental processes: methodology, psychobiology, learning, memory, personality, psychological disorders, therapy, personality and social psychology.

PSY 200 Statistical Principles 3
(Prerequisite: PSY 105. Recommended: MATH 119 or 120) 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 3
(Prerequisite: PSY 105) Physical, social, emotional and intellectual development across the life span. Emphasis on research and applications.

PSY 230 Psychology of Adjustment 3
(Prerequisite: RDG 100) Normal human adjustment and coping in personal and interpersonal arenas: stress and mood management, self-esteem, social adjustment, communication and relationships.

Course Credit Hours

PSY 231 Human Sexuality 3
(Prerequisite: RDG 100. Recommended: PSY 105) Physiological, cultural, social and individual factors that influence sexual behavior, sex roles and sex identity.

PSY 232 Clinical Psychology 3
(Prerequisite: PSY 105) 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 3
(prerequisite: RDG 100. Recommended: PSY 105) Psychiatric disorders as portrayed in films, offering an opportunity to see realistic manifestations of "madness," and cinema's ability to reflect and affect perceptions of mental illness and treatment.

PSY 240 Brain and Behavior 3
(Prerequisite: PSY 105 or BIO 121/121L) Survey of the role of the nervous system in the control of behavior and mental processes. Fall only.

PSY 260 Psychology of Learning and Memory 3
(Prerequisite: PSY 105) 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 3
(prerequisite: PSY 105) 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 3
(Prerequisite: PSY 105 or SOC 101) Social interaction: communication, perception of the self and others, attitudes and leadership. Spring only.

PSY 296 Topics in Psychology 3
(Prerequisite: RDG 100) Various topics. See Schedule of Classes.

PSY 299 Death and Dying 3
(Prerequisite: RDG 100) Psychological, emotional and sociological aspects of death in American culture.

PT 110 Introduction to Pharmacy Technology 3
(Prerequisites: RDG 099 or equivalent, ENG 099 or

equivalent, MATH 100A or equivalent, CHEM 111/112L; corequisites: PT 111L, 115, 116; pre- or corequisite: CSCI 101 or BA 150 or CP 176) Provides a discussion of the pharmacy technician's role, the Pharmacy Practice Act, ethics, prescription preparation and institutional drug distribution systems.

PT 111L Pharmacy Technician Lab I 2
(Prerequisite: CHEM 111/112L; corequisites: PT 110, 115, 116; pre- or corequisite: CSCI 101 or BA 150 or CP 176) This campus lab provides opportunities for skill development in prescription preparation including oral, parenteral and IV preparation. Medical terminology and infection control, including universal precautions, are also emphasized. (6 hours a week)

PT 115 Pharmacy Technician Anatomy and Physiology 3
(Prerequisite: CHEM 111/112L; corequisites: PT 110, 111L, 116; pre- or corequisite: CSCI 101 or BA 150 or CP 176) This is an integrated study of the structures and function of the human body. Common disease entities related to body systems are presented.

PT 116 Pharmacy Calculations 3
(Prerequisite: CHEM 111/112L; corequisites: PT 110, 111L, 115; pre- or corequisite: CSCI 101 or BA 150 or CP 176) This math course is designed to provide skills in pharmaceutical calculations for oral, parenteral and IV preparations.

PT 120 Advanced Pharmacy Technology 3
(Prerequisites: PT 110, 111L, 115, 116, CHEM 111/112L, CSCI 101 or BA 150 or CP 176; corequisites: PT 121L, 122C, 125; pre- or corequisite: COMM 221) This course covers compounding and packaging of drugs, preparation of intravenous admixtures, inventory maintenance, clerical skills and institutional drug distribution processes. Uniform fee: $35

PT 121L Pharmacy Technician Lab II 3
(Corequisites: PT 120, 122C, 125; pre- or corequisite: COMM 221) This campus lab 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 5
(Corequisites: PT 120, 121L, 125; pre- or corequisite: COMM 221) Students are assigned to 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 3
(Corequisites: PT 120, 121L, 122C; pre- or corequisite: COMM 221) This is a study of therapeutic drug categories.

QUFD 101 Quantity Food Theory I 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Food service tools, equipment, cooking methods and techniques, weights and measures, food costs and other math are presented. Breakfast through lunch operations are emphasized.

QUFD 103L Buffet Procedure 2
(Pre- or corequisites: FSMG 101A, 101B, QUFD 101 or department approval) Buffet procedures, catering, introductory serving techniques, customer service and cashiering are covered. (5 lab hours a week = 75 lab hours a term)

QUFD 105L Breakfast/Lunch Production 2
(Pre- or corequisites: FSMG 101A, 101B, QUFD 101 or department approval) Breakfast/lunch preparation techniques and methods of cooking are covered. (5 lab hours a week = 75 lab hours a term)

QUFD 107L Cold Food Preparation I 2
(Pre- or corequisites: FSMG 101A, 101B, QUFD 101 or department approval) Garnishing, Garde Manger, appetizers, hors d'oeuvres, salads, dressings, sandwiches, fruits and vegetable preparation are covered. (5 lab hours a week = 75 lab hours a term)

QUFD 108L Quantity Food Production 2
(Pre- or corequisites: FSMG 101A, 101B, QUFD 101 or department approval) Food service entrees, starches, vegetables, stocks, soups, and basic sauce production are covered. Methods of cooking are applied. (5 lab hours a week = 75 lab hours a term)

QUFD 111 Quantity Food Theory II 2
(Prerequisites: QUFD 101, 102, 103L, 104L, 105L, 106L, BKNG 102 or department approval) Cooking methods, fabrication, presentation, stocks, sauces, soups, beef, poultry, seafood, game, lamb, pork, potatoes, grains, pasta and vegetables/fruits, are covered. Professionalism is stressed.

QUFD 112L Dining Room Skills 2
(Pre- or corequisite: QUFD 111 or department approval)

Topics include 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 2
(Pre- or corequisite: QUFD 111 or department approval) Safe, sanitary and creative pantry techniques are practiced. Appetizers, salads, dressings, fruits/vegetables and starches are produced for the Student Specialties Restaurant. (5 lab hours a week = 75 lab hours a term)

QUFD 114L Stock and Sauces 2
(Pre- or corequisite: QUFD 111 or department approval) Students prepare 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) Topics include production of fabricated cuts of meats and a variety of cooking methods for wholesome, flavorful entrees for the Student Specialties Restaurant. Plate presentation and timely production are stressed. (5 lab hours a week = 75 lab hours a term)

RDG 096 Special Topics 1-3
Presents various topics for reading instruction.

RDG 099 Reading Improvement *3*
(Prerequisite: ENG 098 or equivalent) 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 3
(Prerequisite: RDG 099 or equivalent) Focuses on reading required for success in college. Students work on comprehension, problem solving, note-taking, summarizing and computer-assisted research skills. (3 theory hours + 1 lab hour a week)

RLGN 107 Living World Religions *3*
(Prerequisite: RDG 100) Introduction to 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 *3*
(Prerequisite: RDG 100) Various topics. See Schedule of Classes.

RNR 255L Refresher Theory/Lab 7
(Pre- or corequisite: RNR 265C) Medical-surgical and specialty nursing trends, pharmacology and procedures are covered. (11 theory + 3 lab hours a week for 8 weeks) Course fee: $20

RNR 265C Refresher Clinical Experience 2
(Prerequisite: must have had a valid RN license; pre- or corequisite: RNR 255L) Supervised 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 110 Respiratory Therapy Principles and Practices I 3
(Prerequisites: Program director approval and BIO 123/124L, ENG 101, MATH 120, 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: $90

RT 111 Respiratory Therapy Principles and Practices II 3
(Prerequisites: CHEM 111/112L, RT 110, 115L, 121C, 131; corequisites; RT 116L, 122C, 133, BIO 237/247L) Emphasis on 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, 121C, 131) Students practice 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 1
(Corequisites: RT 111, 122C, 133) Students practice respiratory care procedures learned in RT 111 using equipment in simulated patient situations.

RT 121C Clinical Experiences I *5
(Corequisites: RT 110, 115L, 131) Application of 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) Supervised clinic: experiences in area hospitals and healthcare facilities. (15 hours a week)

RT 131 Physics of Respiratory Therapy 3
(Corequisites: RT 110, 115L, 121C) 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 3
(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 3
(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 evaluation of cardiac and pulmonary function. Course fee: $20

RT 211 Advanced Respiratory Therapy II 3
(Prerequisites: RT 210, 215L, 221C; corequisites: RT 216L, 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 3
(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 1
(Corequisites: RT 210, 221C) Present 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 1
(Corequisites: RT 211, 222C) Practice 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 1
(Corequisites: RT 212, 223C) Practice 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 5**
(Corequisites: RT 210, 215L) Supervised application of 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 5**
(Corequisites: RT211, 216L) Supervised application of 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 5**
(Corequisites: RT 212, 217L) Supervised application of 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. Course fee: $75 (15 hours a week)

RT 296 Special Topics in Respiratory Care 3–6
(Prerequisite: permission of program director) Participation in supervised learning of advanced, specialized practices including rural healthcare, interdisciplinary problem-based learning, cardiopulmonary diagnostics and specialized prenatal/pediatric or adult critical care.

RT 297 Special Problems 3–6
(Prerequisite: permission of program director) Provides opportunity for independent study in respiratory care such as preparation for licensing/credentialing exams.

RT 298 Internship 3–6
(Prerequisite: AS RT Graduate and permission of program director) This course will allow graduates of the AS RT program to continue learning in conjunction with the UNM Health Sciences Center. Graduates will participate in nationally funded research projects that explore diagnosis, treatment, education and research.

***RT 121C, RT 122C, RT 221C, RT 222C, and RT** 223C: 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 partici-

pate 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 setting and during physician rounds.

SALE 101L Sales-Cashier Lab 9
(Prerequisite: placement test) Fundamentals of merchandising math, cashiering, retail salesmanship, human relations, customer service, and basic computer skills. Tutorials and self-paced modules are also available. (5 theory + 10 lab hours a week)

SALE 299 Cooperative Education 4
Students work a minimum of 150 hours at retailing-related, instructor-approved work stations. Student trainee is paid by the cooperating employer and supervised jointly by TVI and the employer. There are times when it is impossible to place all students in work stations because of local employment requirements. (1 theory + 9 lab hours a week)

SCIE 096 Special Topics 1-3
Presents various topics in developmental science.

SCSE 170L Small Engine Shills Improvement I 3
Instruction in the diagnosis and repair of small four-stroke air-cooled engines, safety, engine identification, special tools, ignition, cooling, lubrication, engine rebuilding and fuel systems are studied. (15 theory + 75 lab hours a term)

SCSE 171L Small Engine Shills Improvement II 3
(Prerequisite: SCSE 170L or department approval) Instruction and safe practices in the diagnosis and repair of small two-stroke powered equipment, chain saw service and chain sharpening, blower and line trimmer service are presented. (15 theory + 75 lab hours a term)

SMAP 198 Sheet Metal Apprenticeship 40
(Prerequisite: current full-time employment in the sheet metal industry or department approval) This course consists of 600 hours of related classroom instruction. Instruction covers safety, shop and trade math, sheet metal processes for shop machinery, triangulation lay-out, radial line layout, parallel line layout, blueprint reading and Sheet Metal and Air Conditioning National Assn. (SMACNA) manuals.

SMT 201 Semiconductor Manufacturing Technology I Theory 2
(Prerequisites: ELEC 103L, 105L, MT 205; corequisite: SMT 201L) Students are introduced to 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 a week)

SMT 201L Semiconductor Manufacturing Technology I Lab 1
(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 2
(Prerequisites: SMT 201, 201L, ELEC 114L; corequisite: SMT 211L) Students study the topics presented in SMT 201 with greater detail. Laboratory experiments include the process steps to construct and test simple PMOS field effect transistor devices. (2 theory hours a week)

SMT 211L Semiconductor Manufacturing Technology II Lab 1
(Pre- or corequisite: SMT 211) This is the lab course for SMT 211. (3 lab hours a week) Course fee: $60

SOC 101 Introduction to Sociology 3
(Prerequisite: RDG 100) Basic concepts and theories of contemporary sociology: culture, socialization, social groups, deviance, sexuality, race and ethnicity, gender, age, family, medicine and religion.

SOC 111 Criminal Justice System 3
(Prerequisites: RDG 100, SOC 101) Overview of criminal justice processes. Exploration of law, law enforcement, prosecution, defense, trial and sentencing.

SOC 211 Social Problems 3
(Prerequisite: SOC 101) Analysis from a sociological perspective of a range of problems in contemporary U.S. society: racism and prejudice, crime and delinquency, mental disorders, family changes, poverty and substance abuse.

SOC 212 Juvenile Delinquency 3
(Prerequisite: SOC 101) Theories of juvenile delinquency, child abuse, the juvenile justice system, probation, treatment and corrections for juveniles.

SOC 213 Deviant Behavior 3
(Prerequisite: SOC 101) Theories of deviance and ex-

amination of behaviors such as rape, murder, theft, drug use, alcoholism, prostitution, mental disorders and suicide.

SOC 214 Sociology of Corrections
(Prerequisite: SOC 101) 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 3
(Prerequisite: SOC 101) Causes of crime with emphasis on sociological factors, the various faces of crime, the criminal past and present and criminology theory.

SOC 216 Ethnic and Minority Groups 3
(Prerequisite: SOC 101) Relationships among majority and minority and ethnic groups: prejudice, discrimination, stereotyping, pluralism and social mobility.

SOC 225 **Sociology of the Family 3**
(Prerequisite: SOC 101) Major theories of the family and the status of the modern family in an era of varied family forms.

SOC 230 **Society and Personality 3**
(Prerequisite: SOC 101 or PSY 105) Introduction of topics in social psychology, such as personality theories, concepts of self, human relationships, small group dynamics and organizational theories.

SOC 235 **The Sociology of Gender 3**
(Prerequisite: SOC 101 or PSY 105) Nature and content of gender in the U.S.; theoretical viewpoints from social sciences applied to socialization, family, culture, media, education, work, politics and economics; impact of gender differentiation on personality development and social interaction.

SOC 280 Social Science Research 3
(Prerequisite: SOC 101) Methodology of experimental science applied to social sciences, including the study of methodologies of data collection and analysis using library resources, including legal citations.

SOC 296 Topics in Sociology 3
(Prerequisite: RDG 100) Various topics. See Schedule of Classes.

SPAN 101 Beginning Spanish I 4
(Prerequisite: RDG 100) Listening, speaking and grammatical skills for students with no previous exposure to Spanish.

SPAN 102 Beginning Spanish II 4
(Prerequisite: SPAN 101) Continuation of SPAN 101 listening, speaking, grammatical skills.

SPAN 103 Beginning Spanish I Conversation 3
(Pre- or corequisite: SPAN 102 or permission of instructor) Basic conversational skills and practice speaking Spanish at the beginning level.

SPAN 111 Beginning Spanish I for Bilinguals 4
(Prerequisite: RDG 100) Designed to expand skills within the student's dialect. Language arts approach: listening, speaking, reading and writing with focus on Mexican culture. Students must be able to communicate and read in Spanish. Course includes exposure to important grammatical concepts.

SPAN 112 Beginning Spanish II for Bilinguals 4
(Prerequisite: SPAN 101 or 111) Continuation of SPAN 111, expanding the language and grammatical concepts. Emphasis on Latin American culture. Language arts approach: listening, speaking, reading and writing.

SPAN 201 Intermediate Spanish I 3
(Prerequisite: SPAN 102) Review of grammar and expansion of conversational skills while developing reading proficiency.

SPAN 202 Intermediate Spanish II 3
(Prerequisite: SPAN 201) Conversational activities and emphasis on writing skills.

SPAN 203 Intermediate Spanish II Conversation 3
(Pre- or corequisite: SPAN 202 or permission of instructor) Designed to increase skills in speaking Spanish.

SPAN 275 Accelerated Beginning Spanish 4
(Prerequisite: RDG 100 or permission of instructor) 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 3
(Prerequisite: SPAN 102 or 275 or permission of instructor) 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 Shill of Translation 3
(Prerequisite: SPAN202 or equivalent or permission of instructor) Introduction to the art and profession of translation with focus on practical problems. Texts from journalism, law, business and literature are translated from Spanish to English and from English to Spanish. Class conducted in Spanish.

SPAN 280 Readings in Spanish Literature 3
(Prerequisite: SPAN202 or 276 or permission of instructor) Selected readings from literature written in Spanish by Spanish and Spanish-American authors.

SPAN 296 Topics in Spanish 3
(Prerequisite: varies) Various topics. See Schedule of Classes.

SSKL 096 Special Topics 1-3
Presents various topics in study skills.

SSKL 100 Student Success 3
Provides an opportunity to learn and adopt methods to promote success in school. Includes time management, test taking, study reading and other school success strategies. (3 theory hours = 1 lab hour a week)

SSKL 211 Employment Skills-General 1
Job portfolios that include cover letter, resumes and follow-up letters are prepared. Employer expectations, interview techniques and communicating with business and industry are covered. Employability and job retention skills are stressed.

ST 110 Beginning Surgical Technology I 4
(Prerequisites: BIO 110/112L, BIO 136/139L or BIO 237/247L, COMM 221, ENG 101 or 102; 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 3
(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 6
(Corequisites: ST 110, 112L) Application of surgical procedure theory and skills in the clinical setting. Course fee: $35 (32 hours a week for 9 weeks)

Course Credit Hours

ST 120 Advanced Surgical Technology II 4
(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 8
(Corequisite: ST 120) Continued application of surgical procedure theory and skills in the clinical setting with emphasis on a variety of specialty areas. (24 hours a week for 15 weeks)

THEA 122 Introduction to Theater 3
(Recommended: ENG 101) 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 3
Various topics. See Schedule of Classes.

TRDR 101 Basic Operational Theory 6
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) 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 are covered. (22.5 theory hours a week for 4 weeks)

TRDR 102L Basic Operational Lab 4
(Pre- or corequisites: TRDR 101, CDL learner's permit or department approval) On the driving range, topics include 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)

TRDR 103L Advanced Operational Practices 3
(Prerequisites: TRDR 101, 102L or passing score on basic operational skills test) 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. (22.5 lab hours a week for 5 weeks = 112.5 lab hours a term)

TRDR 171 Material Handling 2
Basic forklift/hand truck operation and basic material handling are covered, 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
In-depth study of problems and the advanced techniques that experts in the trucking industry use to solve them.

VICA 174 Professional Development 1
Development of goals and commitments, personal awareness, time management, organization and communication are emphasized.

VICA 175 Leadership 1
Committee work including agenda setting, parliamentary procedures, team building; participation in community service projects and improvement of communication skills are reviewed.

VICA 176 Career Planning 1
Career information, report writing, conducting interviews, communication improvement and interaction with business and industry are included.

VICA 178 Civic Responsibility 1
Involvement in various community services as volunteers, and local government and community leaders' roles in the operation of the city are covered. Planning and carrying out a community project are included.

WELD 104L Oxyacetylene Welding and Cutting 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Safety and use of oxyacetylene equipment are presented. Training is provided in thermal cutting torches, brazing techniques, 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 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Instruction in safety, brazing and soldering is presented. 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 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) Topics in shielded metal-arc welding (SMAW) include safety, beading, build-ups and welding various types of joints. (5 lab hours a week = 75 lab hours a term)

WELD 107L Introduction to SMAW Qualifications and Fabrication 2
(Prerequisites: RDG 099 or equivalent, MATH 099 or equivalent or department approval) This course provides instruction in safety and proper procedure for arc welding qualifications using basic fabrication and repair problems for practical applications. (5 lab hours a week = 75 lab hours a term)

WELD 114L Advanced SMAW 2
(Prerequisites: WELD 106L and 107L or department approval) Advanced instruction in SMAW with a strong emphasis on safety is offered. Students practice stringers, weaves and wash passes. (5 lab hours a week = 75 lab hours a term)

WELD 115L Introduction to GMAW and Fabrication Lab 2
(Prerequisite: WELD 106L or department approval) Mig welding safety, spray and short-circuiting transfer are covered. Fabrication and repairs are assigned. (5 lab hours a week = 75 lab hours a term)

WELD 116L Introduction to GTAW and Fabrication Lab 2
(Prerequisite: WELD 106L or department approval) Application of safety and TIG welding on aluminum and stainless steel. Fabrication and repairs are assigned. (5 lab hours a week = 75 lab hours a term)

WELD 117L Qualifications for SMAW and GMAW 2
(Pre- or corequisites: WELD 114L and 115L or department approval) 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 3
Safety practices, basic tools and equipment, operating procedures and applications of oxyacetylene and arc welding are covered. (1 theory + 5 lab hours a week = 15 theory + 75 lab hours a term)

WELD 171 Advanced Welding Skills 3
(Prerequisite: WELD 170 or department approval) Mig and tig welding, basic math and blueprint reading are included. (1 theory + 5 lab hours a week = 15 theory + 775 lab hours a term)

WELD 202 Advanced Blueprint Reading 2
(Prerequisite: MATT 113 or department approval) Pipe layout and development, structural print reading and ce-

sign and layout considerations related to fabrication are covered.

WELD 205L Pipe Layout and Welding 2
(Prerequisite: WELD 114L or department approval) Topics include basic pipe welding and layout, materials testing and industrial safety, as well as welding problems for carbon steels. (5 lab hours a week = 75 lab hours a term)

WELD 206L Advanced GMAW and Fabrication 2
(Prerequisite: WELD 117L or department approval) Instruction in advanced carbon steel wire feed welding, AWS lab inspection and fabrication/repair. (75 lab hours a term)

WELD 207L Advanced GTAW and Fabrication 2
(Prerequisite: WELD 116L or department approval) Advanced aluminum and stainless steel wire feed welding and specialized fabrication/repair are covered. (5 lab hours a week = 75 lab hours a term)

WELD 208L Qualifications for GTAW 2
Simulated qualification procedures for tig welding in all positions are covered. (5 lab hours a week = 75 lab hours a term)

WELD 296 Special Topics 1-6
(Prerequisite: department approval) This flexible course enables students to pursue studies in specialized areas. This class may also be taken as an independent or guided study, as a refresher course or to sharpen skills prior to certification or recertification exams.

GLOSSARY

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).

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 requirements in general education 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.

certificate: awarded by a community college for completion of a job training program requiring fewer credit hours and less advanced coursework than an associate degree. TVI offers 41 certificates, some of which form the basis for an associate degree when general education courses are added.

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.

corequisite: a course which must be taken in combination with a specific 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.

distance learning: course sections offered via the Internet, videotape, correspondence or television or in an elec-

tronic classroom. These sections cover the same material and carry the same credit as their in-class 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: A=4, B=3, C=2, D=1, 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 courses: those designed to prepare students for entry-level 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 fulfilled 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: a course which is recommended to be taken prior to enrollment in another course. (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 1998-99).

repeating courses: A course may be repeated up to three times, with each enrollment appearing on the transcript.

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, 224-4SNO, 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.

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 a = footnote in the Schedule of Classes.

traditional grade: letter grade (A, B, C, 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 the Catalog.

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 1999-2000 New Mexico residents pay $31.70 per credit hour. Non-residents also pay tuition: $87.90 per credit hour for Arts & Sciences and occupational courses.

withdrawal: dropping all courses and ceasing to be a TVI student.

wpm: words per minute (keyboarding).

Adapted from the DeAnza College
Student Connection

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