This Catalog Can Help You...

- To more easily find what you are looking for in this catalog, use the **INDEX** beginning on page 292.

- To learn more about various careers for which you can prepare at Victor Valley College, explore **PROGRAMS OF STUDY** beginning on page 73. Use the index on page 292 to find specific programs of study such as Administration, Business Education Technology, Electronics, Computer Technology, English, History, Medical and Health Professions, Welding, and more.

- To find detailed information about any course, read the **COURSE DESCRIPTIONS** beginning on page 147.

- To assure you complete all requirements for an **ASSOCIATE DEGREE** at Victor Valley College, carefully read **REQUIREMENTS FOR GRADUATION** beginning on page 47. To find out which courses fulfill **GENERAL EDUCATION REQUIREMENTS** for an associate degree, turn to page 48.

- To find information about requirements to **TRANSFER** from Victor Valley College to any California State University (CSU) turn to page 56; to any University of California (UC) campus, turn to page 51. To find out which courses fulfill **CSU GENERAL EDUCATION REQUIREMENTS**...pages 57, 58. To find out which courses fulfill **INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC) REQUIREMENTS**, turn to pages 53, 54.

- To review Victor Valley College rules and regulations established to foster higher quality education for you, read **ABOUT YOUR CAMPUS** on page 5.

- To look up important dates, turn to the college **CALENDAR** on the inside back cover of the catalog. You'll find a listing of registration dates, the first and last day of each term, every holiday, the last day you may drop classes, and more!

VICTOR VALLEY COLLEGE

A Public Community College Founded in 1961

Member
California Association of Community Colleges

Accreditation
Accredited by the Western Association of Schools and Colleges and approved by the California State Department of Education.

Accrediting Commission for Community and Junior Colleges,
Western Association of Schools and Colleges
3402 Mendocino Avenue, Santa Rosa, CA 95403
PHONE (707) 569-9177 ● FAX (707) 569-9179

Nursing Program
California Board of Registered Nursing

Paramedic Program
Inland Counties Emergency Medical Agency

Respiratory Therapy Program
Committee on Accreditation for Respiratory Care

Victor Valley College, 18422 Bear Valley Road, Victorville, CA 92395-5850 ● (760) 245-4271
www.vvc.edu

VICTOR VALLEY COLLEGE
DEGREES AND CERTIFICATES

Administration of Justice, A.S.
- Administration of Justice Certificate
- Correctional Science Certificate Corrections Certificate
- Fingerprint Recognition and Classification Certificate
- Forensic Certificate
- Forensic Specialist Certificate
- Juvenile Counselor Course Certificate
- Level III Law Enforcement Modulated Academy Certificate
- Module A Reserve Academy Firearms Only Certificate
- PC 832 Law Enforcement Course Certificate
- School Police Course: PC 832.2 Certificate
- School Police Course: PC 832.3 Certificate
- Police Technician Specialist Certificate
- Public Safety Internship Certificate

Agriculture and Natural Resources
- Animal Science Technician Certificate
- Environmental Field Studies Certificate
- Equine Science Specialist Certificate
- Floral Design Certificate
- Geospatial Technician Certificate
- Horticulture & Landscape Technician Certificate
- Horticulture Specialist Certificate
- Landscape Specialist Certificate
- Landscape Irrigation Certificate
- Mojave Desert Master Gardener Certificate
- Natural Resource Management Technician Certificate

Allied Health
- Certified Phlebotomy Technician IA Certificate
- Certified Phlebotomy Technician IB Certificate
- Certified Phlebotomy Technician IC Certificate
- Nursing Assistant/Home Health Aide Certificate

Anthropology
- GIS for the Social Sciences Certificate

Automotive Technology, A.S.
- Automotive Brake and Suspension Specialist Certificate
- Automotive Drivability Specialist Certificate
- Automotive Inspection and Maintenance Technician Certificate
- Automotive Repair Shop Manager Certificate
- Automotive Specialist I Certificate
- Automotive Specialist II Certificate
- Automotive Technician Certificate
- Automotive Transmission Specialist Certificate
- Automotive Window Tinting Technician Certificate
- Basic Inspection Area Smog Technician Certificate
- Collision Repair Technician Certificate
- Engine Machinist Specialist Certificate
- Enhanced Inspection Area Smog Technician Certificate
- Heavy Duty Diesel Truck Lubrication and Inspection Specialist Certificate
- Recreational Vehicle Service and Repair Technician Certificate
- Small Engine Repair Specialist Certificate

Biological Science
- Biotechnology Certificate

Business, A.S.

Business Administration, A.S.
- Bookkeeping I Certificate
- Management Certificate

Business Education Technologies, A.S.
- Administrative Assistant Certificate
- Computer Systems I Certificate
- Computer Systems II Certificate
- Data Typist Certificate
- Legal Office Certificate
- Medical Office Certificate
- Office Services Certificate
- Spreadsheet Processor Certificate
- Word Processor Certificate

Business Real Estate and Escrow, A.S.
- Advanced Business Real Estate Certificate
- Basic Business Real Estate Certificate
- Business Real Estate Apprentice Certificate
- Business Real Estate Trainee Certificate
- Escrow Secretarial Services Certificate
- Property Management Certificate
- Real Estate Appraiser Certificate
- Real Estate Escrow Certificate
- Real Estate Marketing Certificate
- Real Estate Secretarial Services Certificate

Child Development, A.S.
- Family Child Care Certificate
- Principles of Early Childhood Education Certificate
  - Level I: Associate Teacher
  - Level II: Teacher
  - Level III: Supervisor

Computer Information Systems, A.S.
- Database Administration Certificate
- My SQL Database Developer Certificate
- Netware Certificate
- Network Specialist Certificate
- Programming I Certificate
- Programming II Certificate
- Productivity Software Specialist Certificate
- UNIX Administrator Certificate
- Visual Basic Programming Certificate
- Web Authoring Certificate

Computer Integrated Design and Graphics, A.S.
- Architectural CADD Technician I Certificate
- CADD Technician I Certificate
- Civil CADD Technician I Certificate
- Computer Animation Technician I Certificate
- Geographical Information Systems Certificate
- Visual Communications Graphic Design Certificate
- Visual Communications Print Production Certificate

Construction and Manufacturing Technology, A.S.
- Building Construction Certificate
- Building Inspection Certificate
- Construction Management Certificate
- Construction Technology Certificate
- Basic Electrical Technician Certificate
- Plumbing Technician Certificate
- Public Works Certificate
- Basic Residential Maintenance Technician Certificate
- Basic HVAC/R Certificate

Education Technology
- Education Technology Certificate
- Collegial Education I/II Certificates

Electronics and Computer Technology, A.S.
- A+ Certification Examination Preparation Certificate
- CISCO Networking Academy I, II, III, IV, V, VI, VII Certificate
- Communication Electronics Certificate
- Computer Technology Certificate
- Digital Electronics Certificate
- TV Electronic Technology Certificate
- Fiber Optic Cabling Technician Certificate
- N+ Certification Examination Preparation Certificate
- Wireless Communication Technology Certificate
- Wireless MSCSE Examination Preparation Certificate Level I, II

Electronics Engineering Technology, A.S.
- Associate Degree Electronics Engineering Technology Certificate

Emergency Medical Technician
- Emergency Medical Technician I (Ambulance) Certificate
- Emergency Medical Technician (Refresher) Certificate

Fine Arts, A.A.
This is usually the major for students interested in areas such as the following:
- Art, Music, Photography, Theatre Arts

Fire Technology, A.S.
- Fire Company Officer Certificate
- Fire Fighter Certificate
- Fire Prevention Officer Certificate

Journalism
- Journalism Certificate

Liberal Arts, A.A.
This is usually the major for students who are undecided but who wish to transfer to a university, and/or for those who are interested in areas such as the following,-

Anthropology, Economics, English, French, Geography; History, Journalism, Liberal Studies, Philosophy, Political Science, Psychology, Religious Studies, Sociology, Spanish

Math/Science, A.S.
This is usually the major for students interested in areas such as the following,-

Anatomy, Astronomy, Biology, Chemistry, Geography, Geology, Mathematics, Microbiology, Oceanography, Physical Education, Physical Science, Physiology, Physics

Media Arts
- Digital Animation Artist Certificate
- Digital Animation Technician I-Softimage XSI Certificate
- Digital Animation Technician I-3ds max Certificate

Medical Assistant A.S.
- Medical Assistant Certificate

Nursing, A.S.
- Associate Degree Nursing Certificate
- Nursing Licensure Certificate

Ornamental Horticulture, A.S.

Paramedic, A.S.
- Paramedic Certificate

Paralegal (Political Science)
- Paralegal Studies Certificate

Photography
- Digital Photography Certificate

Physical Education
- Physical Education Dance Certificate

Respiratory Therapy, A.S.
- Respiratory Therapy Certificate

Restaurant Management, A.S.
- Restaurant Management Certificate

Welding, A.S.
- Welding Certificate

I.
WELCOME TO VICTOR VALLEY COLLEGE

"Education forms the common mind:
Just as the twig is bent, the tree will follow."

-Alexander Pope
1688-1744

PHILOSOPHY AND MISSION STATEMENT

Philosophy

Victor Valley Community College District should be accessible to all people in the community who seek growth and can benefit from its programs, courses, and activities. The College's educational, civic, social, and cultural programs will be designed to meet the needs of individual students and the community as a whole.

Mission Statement

The mission of Victor Valley Community College is threefold:

To enable students to succeed and to develop competence through academic and vocational instruction at the lower division college level. This instruction will lead to the granting of certificates and degrees as well as transfer to other institutions;

To contribute to community and state-wide economic growth and competitiveness through vocational and technical instruction leading to employment, continuing education, student support services, adult non-credit instruction, and instruction in basic skills and English as a Second Language;

To foster personal development and lifelong learning through culturally enriching programs and activities for the expanding learning community.

Victor Valley Community College is a learning organization that is committed to

- verified student learning success,
- instructional and institutional innovation and excellence,
- systematic self-evaluation and improvement,
- learning-centered planning and allocating of resources,
- respect and civility in personal conduct,
- integrity and collaboration among students, staff, faculty and administrators,
- active and responsible citizenship,
- equality of access,
- understanding and appreciation of diversity, and
- responding to community employment needs.

RICH HISTORY

Clean air, sunny days, and clear, star-studded nights complement the unusual natural beauty of the High Desert which is the home of Victor Valley College. Around the campus is a landscape ringed with nearby mountains and Joshua trees, featuring spectacular explosions of beautiful desert wild flowers in the spring.

Victor Valley College is one of the most modern of the 109 community colleges in California, which are attended by 10 percent of all students in the United States. For more than 43 years, the history of the college has been entwined with the rich heritage and history of the High Desert and its people.

Victor Valley College serves one of the largest geographical areas in the state and was first settled more than a hundred years ago by California gold miners, trappers, ranchers, merchants, and railroad men.

Known locally as the Inland Empire North, the boundaries of the Victor Valley Community College District include an area of some 2,200 square miles.

Victorville, site of the college and the commercial hub of the High Desert area, was originally a trading post. Victorville's first inhabitants were merchants who provided a stream of railroaders, farmers, and miners with the necessities of life such as ammunition, postal service, and provisions.

Victor Valley College has at its core the fundamental elements and history of the California community college movement, which began around 1910.

The Victor Valley Community College District was created by a vote of the public in 1960, when residents enthusiastically approved the creation of a new community college district to educate local students.

The first classes at the college were held in 1961 on the campus of Victor Valley High School and included a small student body of only 500 students and a 15-member faculty and staff. Construction began on the present campus in 1963, on the site of what was once a sprawling 230-acre ranch.

In 1965, the new Victor Valley College campus opened its doors to students. An expanded technical complex was opened in 1979. In 1981, the Performing Arts Center was opened for the use of both students and the community as a whole. A new Allied Health building opened in 1983. In 1988, the Student Services Building was added to the campus complex.

The campus has changed considerably over the past five years: Gym, Science, Library, Construction Technology, Student Activities Center, Child Development Center building, and additional softball and soccer fields have been added. The old library has been remodeled into a learning center, language lab, and computer labs. In addition to these, an elevator connecting the upper and lower campus, parking lots, and tennis courts have become part of the landscape of the campus.

On the horizon is a major classroom building with 950 student computer learning stations, a dramatic arts and speech addition to the Performing Arts Center, and an adaptive physical education gym.

The college draws students from Adelanto, Apple Valley, Victorville, Helendale, Hesperia, Las Flores, Lucerne Valley, Oro Grande, Phelan, Piñon Hills, Wrightwood and nationally and internationally via online courses.

BOARD OF TRUSTEES

ASB Trustee	Dennis Henderson
Thomas M. Elder, II	Joe Range
Dorothy N. Franke, Ph.D.	Dr. Bettye Underhill

Elected by the voters of the community, the Victor Valley Community College District Board of Trustees is the governing body of the college.

The Board of Trustees sets overall standards and academic policies for the college and guides the development of college programs and policies.

Policies set by the board are implemented on a day-to-day basis by the superintendent/president of the district and a well-trained group of administrators, faculty, and staff on behalf of the trustees.

Many Victor Valley College students transfer to four-year colleges and universities, and the Board of Trustees designs those educational programs in conjunction with the entire network of community colleges and universities in California.

The Victor Valley Community College District Board of Trustees also works closely with local community and business leaders to establish programs which will benefit the community at large. These and other initiatives are parts of the Integrated Plan mandated by the Board.

Working with employers within the Victor Valley area, the Board of Trustees has approved a number of programs to train students for specific jobs. With these technical programs, the Board of Trustees aims to help provide greater vocational opportunities within the Victor Valley area.

The Victor Valley Community College District Board of Trustees is under the advisory supervision of the California Board of Governors, which oversees higher education in California.

The Board of Trustees is responsible for budgeting funds received from state and local districts for the benefit of the college and its student body.

CAMPUS CULTURE AND CLIMATE

At Victor Valley College there is one constant upon which everything is based: The student is always first! This is true in all stages of planning and implementation. This includes the preparation of the college's budget, program development, and all services offered to the student. It is basic to our success and the success of our students.

According to Terrence E. Deal and Allen A. Kennedy, in *Corporate Culture* (1982, ch. 1), "A strong culture is a system of informal rules that spells out how people are to behave most of the time." Climate, on the other hand, is the informal day-to-day behavior, with its underlying attitudes, beliefs, and values, of members of the organization. Climate is not visual, but it is the feel, tone, atmosphere, and internal characteristics of the institution. Accordingly, Victor Valley College will seek to enhance its supportive organizational culture and climate by continuous implementation of all elements of a well defined plan. We will:

- motivate all members of the college community to do their best.
- recognize that tone and expectation, in essence climate and culture, are at the CEO level.
- foster the development and support the success of an increasingly diverse student population.
- encourage a quality-focused paradigm characterized by embracing institutional effectiveness, measuring student success, and creating innovative yet relevant educational programs and services.
- build cooperation and trust and create cross-cultural teams capable of meeting the political and educational demands for effectiveness and quality.
- develop leaders who are self-confident, group-oriented, facilitative of change, catalytic toward quality, and persuasive with all external and internal constituencies.
- destroy the illusion that constituent groups are separate, unrelated, and often competing forces.
- provide leadership that will guide activities resulting in appropriate change.
- promote continuous development of administration, faculty, and staff to provide programs and services of quality and excellence.
- encourage decision-making to be decentralized, management to be participative, and governance to be shared.
- advocate a college-wide problem-solving attitude desirous of institutional excellence and a quality college for the 21st century.
- acknowledge that learning and work can and should be fun and satisfying.
- thrive on effective communications, vertically and laterally, formally and informally, throughout the organization and in the community.
- reward and respect quality, excellence, and success, constantly and continuously seek institutional renewal and improvement.

ADMINISTRATION

Dr. Patricia A. Spencer, Superintendent/President
Jeffrey Cooper, Deputy Superintendent/
Executive Vice President, Instruction
Dr. Willard Clark Lewallen, Vice President, Student Services
Bruce Baron, Vice President, Administrative Services
Nick Parisi, Dean, Vocational Programs
Dr. Victoria Hindes, Dean, Student Services
Dr. Thomas O'Neil, Dean, Humanities & Social Sciences
Henry Yong, Academic Dean, Math & Science

The administration of Victor Valley College implements the policies and direction set by the Victor Valley Community College District Board of Trustees.

Under the direction of the superintendent/president, the administration of Victor Valley College keeps the college running smoothly on a day-to-day basis.

WHAT WE OFFER

Adult/Continuing Education

Victor Valley College maintains a program of Adult/Continuing Education which offers a variety of day and evening classes as well as some classes on weekends. All of these classes are non-credit.

Adult/Continuing Education classes are designed to meet a broad range of needs in the Victor Valley community, and include subjects such as basic skills training, older adult education, parenting, ESL and physical fitness.

Adult Education also provides classes in vocational areas such as home economics and bus driver training, which allow students to grow personally and professionally.

Awards

Each year, Victor Valley College sponsors an awards program where scholarships are given by companies, private groups, or individuals to college students who excel.

Information on awards, as well as a variety of student financial aid programs, is available in detail from the Financial Aid Office where application forms for scholarships and grants may be found (see Section VI - Financing Your Education) .

Phi Theta Kappa, the International Honor Society of the Two-Year College, was established in 1918. It is the only internationally acclaimed honor society serving institutions which offer associate degree programs. Membership is given added significance by the fact that the society is recognized by the American Association of Community Colleges as the official honor Society for two-year colleges.

The purpose of Phi Theta Kappa is to encourage scholarship and community service. To achieve this purpose, Phi Theta Kappa provides opportunities for the development of leadership in an intellectual climate to exchange ideas and ideals, for lively fellowship for scholars, and for stimulation of interest in continuing academic excellence.

Included in the lifetime membership is a nationwide job search program and the availability of over $1,000,000 of transfer scholarships. Our chapter's name is Alpha Phi Gamma. To qualify for membership, a student must complete 12 units at Victor Valley College and have a cumulative G. P. A. of at least 3.5.

Community Service

Victor Valley College offers self-financing Community Services classes in areas in which students may desire personal growth or have a particular interest. These classes often include a cultural component involving seminars, film festivals, forums, and short-term general interest courses.

Community Service classes are funded entirely by fees collected at the time of registration and not by the Victor Valley Community College District. Fees for community service classes are not refundable unless the particular class is canceled.

Degrees and Certificates

Victor Valley College offers two degrees and over 100 certificates of achievement for satisfactory completion of specific programs of study. For a complete listing see pages I, II in the front of the catalog.

Associate degrees typically require two years of full-time study, although the length of time may vary according to individual student programs.

Associate in Science (A.S.) degrees are awarded in the areas of Math/Science and various technical areas.

Associate in Arts (A.A.) degrees are awarded in the areas of liberal arts and fine arts.

Non-degree continuing education courses for adults are also offered at Victor Valley College on a regular basis during the day, evening, or on Saturdays.

Requirements For Degrees/Certificates

Recipients of Associate in Arts (A.A.) or Associate in Science (A.S.) degrees from Victor Valley College must have completed 60 units of college work, with a grade point average of "C" or better. For a complete listing of requirements, see page 42.

Units to be counted toward graduation must include 18 or more units in an approved departmental major or in a certificate program having 18 or more units. At least 18 units of general education courses must also be completed to meet requirements in the areas of natural science, social science, the humanities, language skills, and logic/mathematical skills. Courses used to satisfy the major cannot also fulfill general education requirements. In addition, students must complete a physical education course.

At least 12 units must be completed while the student is a resident of the Victor Valley Community College District.

Students receiving a Certificate of Achievement must have completed all required courses with a grade point average of "C" or better, including 12 units in residence at VVC.

The College accepts most lower division courses from other colleges accredited by the following institutions: Middle States Association of Colleges and Schools and Colleges, The Northwest Association of Schools and Colleges, North Central Association of Schools and Colleges, New England Association of Schools and Colleges, Inc./Commission on Institutions of High Education, Southern Association of Colleges and Schools/Commission on Colleges, Western Association of Schools and Colleges/Accrediting Commission for Senior Colleges and Universities (see Accredited Institutions of Post Secondary Education Handbook xi).

Student Honors

The President's List, the Dean's List, and the Honor Roll are marks of superior academic achievement.

To qualify for these prestigious honors, students must complete at least 12 units of classes and achieve outstanding grades as follows:

- To qualify for the President's List, a student must achieve a grade point average of 4.0 or an "A" grade in all classes.
- To qualify for the Dean's List, a student must achieve a grade point average of 3.50 - 3.99.
- To qualify for the Honor Roll, a student must achieve a grade point average of 3.0 - 3.49.

Technical Education

Certificates of achievement are available to students who successfully complete the requirements of various certificate programs. These certificates are evidence of proficiency which are recognized by potential employers.

Victor Valley College offers certificates in major areas of study, including Administration of Justice, Allied Health, Automotive Technology, Business Administration, Business Real Estate and Escrow, Business Education Technologies, Child Development, Construction Technology, Computer Information Systems, Drafting Technology, Electronics and Computer Technology, Fire Technology, Nursing, Ornamental Horticulture, Paralegal Studies, Restaurant Management, Respiratory Therapy, and Welding.

To be awarded a certificate, a student must have completed all prescribed course work with a cumulative grade point average of 2.0 or a "C" average. At least 12 units of course work must have been completed at Victor Valley College.

Technical Education students who are earning certificates of achievement may also take additional courses to earn an Associate Degree.

Technical certificates are listed in *Section VIII* along with programs of study and course descriptions.

Graduation Honors

Students completing associate degree programs with prescribed cumulative grade point averages are recognized as honor students through the college commencement exercises and diplomas. These honor students will also be eligible to wear honor cords at graduation.

All lower division degree applicable courses, units, and grades earned by students at VVC and other colleges and universities are included in calculating grade point averages for graduation and academic honors.

Academic honors are as follows:

Highest Honors 3.90 - 4.00 GPA	
High Honors	3.75 - 3.89 GPA
Academic Distinction	3.50 - 3.74 GPA

These honors are noted on student degrees.

ABOUT YOUR CAMPUS

Student Responsibilities

Students have a responsibility to understand and follow all college policies and procedures.

Students should study the schedule of classes as well as this catalog, which provides a wealth of information on admissions, registration, graduation, transfer, and managing and financing a college education.

Students must plan their own education by carefully considering the courses they take and the requirements for the educational degrees and certificates which they seek.

Student responsibilities include the selection of courses which will complete the general education and major requirements of the area in which they are studying (See Section XIII - Moving On).

Counseling and guidance services are available to help students plan and successfully complete their education at Victor Valley College.

Academic Freedom

Teachers must be free to think and to express ideas, free to select and employ materials and methods of instruction, free from undue pressures of authority, and free to act within their professional group. Such freedom should be used judiciously and prudently to the end that it promotes the free exercise of intelligence and student learning.

Academic freedom is not an absolute. It must be exercised within basic ethical responsibilities of the teaching profession.

Open Class Policy

Victor Valley College strives to maintain an "open class" policy which allows any person admitted to the college to enroll in any course section or class. This includes all students who meet prerequisites in Chapter II, Division 3, Part VI, Title 5 of the California Administrative Code, commencing with Section 51820, unless specifically exempted by law.

No preference in admission shall be given to either men or women, in accordance with Title IX.

California law requires that the average daily attendance in classes be recorded for state reimbursement.

Student Accident Insurance

All students who are properly registered at Victor Valley College are provided student accident insurance for accidents which occur in class or during college-sponsored activities such as sporting events. This insurance is secondary to other insurances.

If a student is injured in an athletic or nonathletic activity, claim forms are available in the Athletic Trainer's office which is located in the Victor Valley College Main Gymnasium.

Student Handbook

Important procedural and policy information is contained in the Student Handbook, which is available to all Victor Valley College students at no cost. Copies may be obtained in the Office of the Vice President for Student Services.

The **Student Handbook** includes important information on:

Activities
College Regulations
Matriculation
Student Services

Drug and Alcohol-Free Campus

Victor Valley College is a drug and alcohol-free campus.

This means that the use, possession, or distribution of either illicit drugs or alcohol by students or their guests is prohibited on college property or at any college sponsored activity.

Students or their guests who violate these requirements may be suspended or expelled from Victor Valley College.

Counseling and referral services are available through the Counseling Department for students who have concerns about alcohol or drugs.

Smoke-Free Campus

Victor Valley College has been designated as a smoke-free campus. This means that smoking is prohibited in all buildings and enclosures at the college and at activities sponsored by the college.

This policy is to protect the well-being of students, faculty, staff, and guests. Student violators are subject to procedures found in the Student Code of Conduct.

Campus Security/Police

As to be expected with more than 15,000 students and with open public access to the campus, students need to understand that unlawful activities may occur at Victor Valley College and at activities which the college sponsors.

Although the college provides security and takes reasonable preventive measures, it is important that students also take reasonable preventive steps to prevent or avoid criminal behavior.

For example, students should keep their automobiles locked and their possessions secured at all times to discourage and prevent thefts.

Other Campus Regulations

1. Only officially registered students are allowed to attend classes. Minors or other students who are not registered or do not have permission to be in the class may not remain in the classroom.
2. Students are not permitted to eat or drink in classrooms.
3. Smoking is prohibited in all college buildings.
4. Card playing on Victor Valley College premises is prohibited except in a designated game or recreation area.
5. Dogs (except service eye dogs) and other pets are not allowed on Victor Valley College premises.
6. Printed materials to be distributed must be approved for distribution by the Office of Student Activities.
7. Students must be fully attired, including shoes, while in the classroom or on Victor Valley College premises.
8. Library books and materials must be returned promptly.
9. Use of audio equipment on Victor Valley College premises is restricted to personal headphones or preapproved authorized activities.
10. Children must be under the supervision of parents at all times.

The following offenses occurred at Victor Valley College:

	Incidents	
Category	thrugh March '04	through Feb.'05
Murder	0	0
Rape	0	0
Robbery	0	0
Assault	1	3
Auto Theft	4	5
Auto Burglary	10	18
Being under the influence	0	0
Weapons possessions	0	0
Burglary	0	11

Equal Opportunity Policy

Victor Valley College is an equal educational opportunity college: It follows all federal guidelines including Title IX of the Educational Amendments of 1972 relating to the recruitment, employment and retention of employees. VVC does not discriminate on the basis of race, color, national origin, sex, age, or disability in any of its policies, procedures or practices. This nondiscrimination policy covers admission and access to, and treatment and employment in, college employment programs and activities. The Section 504-Disabled Counselor/Enabler at Victor Valley College may be reached at (760) 245-4271, extension 2212.

Reglamento Imparcial de Oportunidad

El Colegio de Victor Valley es un colegio de oportunidad educacional imparcial: sique las guías federales incluyendo el Título IX de la Enmienda Educacional de 1972 la cual se relata al reclutamiento, empleo y la retención de empleados. VVC no hace distinción a base de raza, color, sexo, origen nacional, edad, situación de inferioridad o edad, en ninguna de sus prácticas o procedimientos. Este reglamento imparcial abarca admisión y acceso y también tratamiento y empleo en las actividades y programas de empleo del colegio. Puede llamar a la consejera y habilitadora bajo la sección 504 en el Colegio Victor Valley, (760) 245-4271, extensión 2212.

Sexual Harassment

Victor Valley College policies prohibit sexual harassment. The college abides by the policy and appeal procedures of Assembly Bill 803, "Protection For Students and Staff Regarding Sexual Harassment." If a student experiences sexual harassment problems, he or she should immediately notify the District Affirmative Action Officer, Victor Valley College, 18422 Bear Valley Rd., Victorville, CA 92395 (760) 245-4271, extension 2386.

Acoso Sexual

El reglamento del Colegio de Victor Valley prohibe el acoso sexual. El colegio se atiene a las normas y al procedimiento de apelación del Proyecto de ley 803, "Protección del acoso sexual para los estudiantes y los empleados." Si el estudiante experimenta acoso sexual, él o ella debe notificar inmediatamente al Oficial del distrito de acción afirmativa, Colegio de Victor Valley, Calle Bear Valley 18422, Victorville, CA 92395 (760) 245-4271, extensión 2386.

Student Affirmative Action Plan

Victor Valley College strives to overcome any remaining ethnic, economic, disabled, and gender under-representation in the composition of the student body or any factors that discriminate against students who seek to be educated here.

The college has responsibility for ensuring equal educational opportunity for all eligible residents of the district. Within its financial capacity, Victor Valley College will provide for the prompt, fair, and impartial consideration of all student grievances regarding race, color, religion, gender, disability, sexual orientation, or national origin.

The college provides access to counseling or grievance procedures for all students and encourages the resolution of students' problems on an informal basis.

As an equal educational opportunity campus, Victor Valley College complies with Title IX of the 1972 Education Amendments and Section 504 of the Rehabilitation Act of 1974.

The college will make every attempt to eliminate any remaining barriers that cause significant under-representation of minority, disabled, or economically, educationally, or socially disadvantaged students.

Discrimination Complaint Procedure

Any student who feels he or she has been discriminated against has the right to file a complaint of unlawful discrimination with the Affirmative Action Officer, Victor Valley College, 18422 Bear Valley Rd., Victorville, CA 92395 (760) 245-4271, extension 2386.

Nondiscrimination Policy

Victor Valley Community College District provides opportunities for the pursuit of excellence through educational programs and services primarily for college district residents. The purpose of these programs and services is to enhance the quality of human life by providing public access to college education without regard to race, ethnic or national origin, sex, age, disability, sexual orientation, or prior educational status or any other unreasonable basis for discrimination. The lack of English language skills will not be a barrier to admission and participation in vocational education programs.

Inquiries regarding the application of this policy may be directed to the appropriate compliance officer for Title 5 and Coordinator for Title IX, Regulation 504/ADA - Director of Human Resources, Victor Valley College, 18422 Bear Valley Rd., Victorville, CA 92395 (760) 245-4271, extension 2386.

Política No Discriminatoria

El Colegio Victor Valley proporciona, principalmente a los residentes de su distrito, oportunidades a fin de alcanzar metas de excelencia por medio de sus programas educativos y de otros servicios. El propósito de estos programas y servicios es mejorar la calidad de la vida humana haciendo accesible la educación universitaria al público en general, sin prestar atención a su raza, origen étnico o nacional, sexo, edad, insuficiencias o incapacidad física, su orientación sexual, previa situación educacional, o cualquier otra base irrazonable de discriminación. La falta de habilidad en el lenguaje inglés no será una barrera a la admisión o participación en el programa de educación vocacional.

Preguntas respecto a la aplicación de esta política pueden dirigirse al oficial designado responsable de al áplicación del Título 5 y al coordinador del Título IX, Regulación 504/ADA - Oficial de Recursos Humanos, Colegio del Victor Valley, Calle Bear Valley 18422, Victorville, CA 92395 (760) 245-4271, extensión 2386.

Information Para Estudiantes de Inglés Como Segundo Idioma (ESL)

Los estudiantes que no tengan un inglés fluido pueden pedir ayuda sobre preguntas respecto a los cursos ofrecidos en el Colegio Victor Valley y para inscribirse en las clases, está disponible por cita el consejera bilingüe en el edificio de Servicios Estudiantes en el Departamento de Consejería.

Estudiantes deberán inscribirse en las clases para inglés como segundo idioma hasta que estén preparados para seguir un programa de educacíon.

Student Record Notice/Directory Information

The Federal Family Education Rights and Privacy Act of 1974, as implemented by the California Education Code (76200...) and Title V (54600...), protects the privacy of student records. The college is authorized to release "Directory Information"

which at VVC includes a student's name, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, degrees and awards received, and any other information authorized in writing by the student. A student may prohibit the release of this information by marking the appropriate box on the application for admission. The college may also release records.

Student records primarily include those found in the Admission and Records Office (admission application, transcripts, petitions...) and the Office of the Dean of Students (discipline). The required log of access to these records is kept in the respective offices. Officials and employees may have access to these records if they are operating within the scope of their assigned duties. These access logs are kept for minimum of five years. Students may have access to their records with appropriate notice and on payment of appropriate cost and may challenge the content as defined by campus policy. Students may also file a complaint with the U.S. Dept. of Education concerning any alleged failure by the institution to comply with Section 43 of the General Education Provisions Act.

Americans With Disabilities Act (ADA)/504

Victor Valley College does not unlawfully discriminate based on physical or mental disability. Any complaints from students, employees or the public about unlawful discrimination in academic accommodation or facility access due to disability should be directed to the ADA/504 Coordinator who is the Vice President for Administrative Services. The Complaint Procedures may be obtained at that office or the Dean of Students Office. Assistance with disabilities for students can be obtained at the campus DSPS office located in the Student Services Building for physically disabled or the Academic Commons for Learning Disabled Center.

Student Right To Know

In agreement with the federal government and under the terms of the "Student Right-To-Know Subscription Agreement," Victor Valley Community College (VVCC) makes available its outcomes regarding the 1998 cohort. Rates were assembled from a **cohort** including only:

- First-time, full-time, credit freshman students in Fall 1998
- Indicated a goal of degree, certificate, or transfer

In looking at VVCC's Fall '98 initial cohort, only 225 students are represented. This amounts to only 2.7% of students enrolled in credit courses at the time of first census. Out of this proportionately small cohort, 28.0% of students either graduated, completed, or became transfer prepared. The overall transfer rate was viewed at 16.4%.

The Tracking Period for the current cohort was three years (Fall '98-Spring '01). Summer sessions were not included. Students in the '98 cohort were placed into categories based upon the following criteria:

- **Graduation/Completion/Transfer Preparation Rate:** A student received an Associate Degree, Certificate of Completion, or became eligible for transfer (earned at least 56 transferable units with a 2.0 GPA or greater).
- **Transfer:** A student who does not meet the graduation/completion/transfer preparation definition, but does transfer to a UC, CSU, or another CCC.
- **Still enrolled:** A student who has not completed a degree or certificate program but is still enrolled at the college.
- **Left in good standing:** A student who left the college in good academic standing.
- **Left in poor standing:** A student who left the college in poor academic standing.
- **Other:** A student either became permanently disabled, left to serve in the armed forces, left to serve in the foreign aid services, left to serve on a church mission, or died.

According to the IPEDS-GRS methodology, a student can only be counted once in any of the aforementioned categories. For example, a student who has received a degree yet is still attending the college will only be counted under the "Graduation/completion/transfer preparation rate" category and not the "Still enrolled" category. In addition, students who leave school to serve in the armed forces are also excluded from the cohort.

VVCC's results are shown below:

Completers	28.0%
Left in good standing	14.7%
Left in poor standing	16.0%
Still enrolled	21.8%
Transfers	16.4%
Other	3.1%

16.0% of students left in poor standing, whereas 66.2% either completed a degree or certificate, transferred, are still enrolled or became transfer prepared

In viewing the previous data, one must realize that the selected cohort discloses a very narrow view of college success. VVCC has been founded upon very diverse and established goals which are not reflected in the current rates. Some of VVCC's goals have translated into characteristics such as:

- Providing programs for disabled students and special populations
- Offering programs for low income students
- Teaching English as a second language
- Offering an AA degree in 2 academic areas, an AS degree in 21 academic and technical areas, and over 100 certificates
- Providing many courses in Vocational Education
- Providing many courses in precollegiate basic skills

II.
GETTING AROUND CAMPUS

"Education is a progressive discovery of our own ignorance."

-Will Durant

AN OASIS OF LEARNING

The bright red tile roofs which top Victor Valley College buildings are part of a carefully designed architectural scheme in which all the companion parts work together to create a pleasant environment for learning.

More than a dozen handsome, mission-style buildings circle a large man-made lake near the center of the campus, designed to form an oasis of learning in the High Desert.

Conveniently placed parking lots, pay telephones, and vending machines are located all around the campus for easy access and use by college students.

Here is a list of Victor Valley College facilities:

Athletic Facilities

Victor Valley College encourages its students to participate in athletic activities to further their physical, emotional, and mental development as individuals.

Athletic facilities are located on the lower campus and include the main gymnasium (Building 71) with a seating capacity of 2,040. In addition to the main basketball court, the gym also has an indoor weight room, an athletic training room, office space, and a mezzanine area in which dance and wrestling classes are held.

Other athletic facilities include, 10 outdoor tennis courts, a track/athletic field, softball diamond, baseball diamond, and four soccer fields. All facilities are available to students in athletics classes for organized team sports.

Community groups wishing to use the facility must contact Facilities Scheduling, 245-4271, extension 2480, regarding availability and rental fees.

Football, softball, baseball, men's and women's tennis, men's and women's soccer, women's volleyball, men's and women's basketball, wrestling and golf, men's and women's cross country, and men's and women's track and field are among the intercollegiate sports available at Victor Valley College.

In organized team sports, Victor Valley College Rams compete against other teams within the Foothill Athletic Conference, as well as against teams from other colleges or universities.

RAMS Bookstore

Located in the Student Activities Center/Community Conference Center (Building 44), the Rams Bookstore is owned and operated by the Victor Valley Community College District. The Board of Trustees or their designee establishes a reasonable profit margin for all required textbooks and supplementary materials based on invoice price to the bookstore. This profit margin and a list of current projects funded by the bookstore are published in a manner which provides ready access of this information to students and other members of the college community.

Textbooks, trade books, supplies, general merchandise and computer software are available through Rams Bookstore. Other academic supplies such as graduation announcements, graduation regalia and college rings may also be purchased.

The Rams Bookstore is generally open Monday-Tuesday, 8am-7pm; Wednesday-Thursday, 8am-5pm; and Friday, 8am-2pm. The hours of operation are extended during the beginning of the Fall and Spring semesters, and the bookstore is open on Saturdays during this period. You can make purchases online by using the Rams Bookstore website: www.vvcRams.com.

Campus Police Services

Located in front of the Student Activities Center/Community Conference Center (Building 44). Police office hours: Monday-Friday, 7:00am - 4:00pm. (760) 245-4271, ext. 2329. After hours and weekend (760) 245-4271, ext. 2555.

Child Development Center

The Child Development Center (Building 12) provides early education child development programs that are free to eligible families. Eligibility is determined by income level and family size for the State Preschool Program. Other programs require the parent to be working, going to school or to be enrolled in a training program, incapacitated, or job searching for 60 days, in addition to income eligibility.

The Child Development Center toddler program serves children from 18 months through 3 years; the preschool program serves children age three through five.

The center is open Monday through Thursday, 7:30am to 6:00pm.; Friday, 7:30am to 5:30pm. During college breaks, the center is open Monday through Friday, 7:30am to 5:30pm.

The Child Development Center is a high quality state licensed facility, with credentialed staff and has been accredited by the National Association for the Education of Young Children. The staff at the center strives to provide a positive, nurturing learning environment for children. In addition, the program serves as a lab training site for students enrolled in child development classes.

The Child Development Center is located on the upper campus, north of the Administration Building. For more information, please phone the center at (760) 245-4271, extension 2618.

Classroom Complexes:

- ACADEMIC COMMONS (Building 42) —This state-of-the-art facility, located just north of the lake, includes over 125 computer workstations to serve students' academic needs. Other services provided within the Academic Commons include tutoring, computer assisted-instruction (CAI), Internet access, word processing, the Cooperative Education Office, and CIT classes.

- ADMINISTRATION BUILDING (Building 10) —The Administration Building, located on the west end of the campus near Spring Valley Lake Parkway, contains the Administration offices and Human Resources office. On the south side of the building in AD8 the Restaurant Management and Food Handlers classes meet.

- ALLIED HEALTH BUILDING (Building 32, 32A, 32B, 32C) —The Allied Health Building, located to the northwest of the lake, contains classrooms for the study of nursing, respiratory therapy, and other health-related subjects. Faculty offices are located in portable buildings nearby and the Allied Health Building.

- ART (Building 22) —The Art Building is a hexagonal-shaped building located west of the lake and is the site for fine arts, graphics, and photography classes. The building also hosts the department's faculty offices.

- SEWING COMPLEX (Building 72) — The Sewing Complex, referred to as Building 15, is located on the lower campus between the Main Gymnasium and the Auxiliary Gymnasium. It also contains a general purpose classroom.

- COUNSELING/ADMINISTRATION (Building 55) — Located on the south end of the lake. This building includes the offices of CalWORKs, Career Center, Counseling, Mailroom, Student Employment, Switchboard, Transfer Center, Vice President of Student Services, Deputy Superintendent/Executive Vice President, Instruction, and the Superintendent/President.

- FIRE ACADEMY (Building 94) — Located on lower campus near the VVC Printshop and Maintenance & Operations office. The Fire Academy Building houses the Fire Technology classes.

- HUMANITIES CENTER (Building 80) —The home of English, ESL, and language classes, located on the lower campus near the corner of Bear Valley and Fish Hatchery Roads. The Complex also houses the Language Lab, Writing Center, faculty offices and CSUSB.

- LIBERAL ARTS BUILDING (Building 30) — The Liberal Arts Building is located behind the Science Lab Building and contains general purpose classrooms and faculty offices.

- LOWER PORTABLES (Building 66A, 66B) — Houses the AJ classes, AZUSA Pacific University, and the University of Phoenix, and are located on the lower campus behind the Construction Technology Building.

- MUSIC BUILDING (Building 20) —The Music Building is a hexagonal-shaped building located southwest of the lake, near the Counseling/Administration Building. Music classes are held and practice studios are housed in this complex.

- SCIENCE LAB BUILDING (Building 31) —The Science Lab Building is located to the west of the lake and is situated in front of the Liberal Arts Building. This building contains laboratory classrooms for the life and physical science programs, a planetarium and faculty offices.

- STUDENT ACTIVITIES CENTER (SAC) (Building 44) — Located on upper campus, east of the lake. Classes may be held on the 2nd floor: SAC A, SAC B, SAC C, SAC D, and Quiet Room.

- TECHNICAL/VOCATIONAL COMPLEX (Building 60, 60A, 60B, 60C, 61, 62, 63, 64, 65) —The Technical/Vocational Complex, located on the lower campus across from the football field, is the site of specialized classes in areas such as electronics, automotive technology, welding, agriculture, drafting, computer integrated design and graphics, administration of justice and construction technologies. The complex includes an auto shop with specialized equipment, a greenhouse for the cultivation and study of various plants and agricultural crops, and a construction technology center.

Library

Located at the north side of the lake (Building 41), the library offers a diverse collection that includes books, periodicals, electronic databases, pamphlets, microfilm, audio and video cassettes, CDs and DVDs. In addition to circulating books, the library has collections of reference, local history, and instructor-reserved materials available for use within the library. Photocopiers, typewriters, video players for instructional tapes and microfiche/film reader printers are also available. Group study rooms may be reserved at the circulation desk.

Library holdings may be found by searching the online catalog available from the Internet at http://www.vvc.edu/library or at 19 dedicated computer stations in the library. There are 12 computers available for accessing the Internet and subscription databases. An ADA workstation equipped with adaptive technology software is available for students. Currently enrolled students may apply for passwords for off-campus access to the subscription databases.

Professional librarians are available at the reference desk during all library hours, providing a variety of information services to help students become more confident and self-sufficient in using the library.

Students must present either a current student I.D. or a registration printout or current ASB card to verify enrollment status each semester prior to checking out materials. Community members may borrow materials by paying a $12 annual membership fee to join Friends of the Library, a subsidiary of the VVC Foundation. The library charges fees for late returns, damaged or lost materials, according to guidelines set by the College Board of Trustees.

Library hours during the fall and spring semesters are: Monday-Thursday, 8:00 a.m.-9:00 p.m., Friday, 8:00 a.m.-4:00 p.m., and Saturday, 10:00 a.m.-3:00 p.m. Hours during the winter and summer sessions vary. For more information call (760) 245-4271, ext. 2262.

Instructional Media Services (IMS)

IMS is located on the lower level of the Library. Media services are available to faculty, staff, and students.

Faculty and staff can schedule equipment demonstrations and training with IMS staff. Equipment can be scheduled for delivery campus wide for use in classrooms or for meetings. Faculty and staff are encouraged to immediately report malfunctions of equipment assigned to classrooms, equipment hubs, or other locations on campus to IMS. Call 245-4271, ext. 2263 or ext. 2424, to report problems with equipment. Carrels adjacent to IMS are available for students visiting the library to

view VHS or DVD media materials that are indexed in the library card catalog. A high-speed audio cassette duplicator that can be used to make copies of classroom-related, copyright free assignments, audiocassette and CD players with headphones, as well as slide projectors are also housed in the carrels.

Instructional Media Services hours: Monday-Thursday, 7:30 am-5:00 pm and Fridays, 7:30 am-4:00 pm. For additional information call IMS at (760) 245-4271, ext. 2263 or ext. 2424.

Parking

Parking lots located around the campus are provided for students displaying valid parking permits. Parking rules and regulations are explained in the Victor Valley College parking booklet which is available free of charge at the time of registration. It is the responsibility of each student to obtain a booklet and to read it thoroughly.

The parking fee combined with the ASB card is $35 per vehicle per semester. The parking fee without the ASB card is $40 per vehicle per semester. The parking fee for Financial Aid students is $20 per semester per vehicle. Motorcycle permits are $20 in addition to the purchase of a vehicle permit.

The parking fee for Summer is $20 per vehicle.

Parking fees are subject to change.

Alternate Parking Options
In addition to semester parking permits, the College offers students and visitors two alternate parking options:

1. *Daily parking permits* are available for $1.50 per day (machines accept quarters only) through vending machines located on campus.

2. *Parking meters* are located on the east side of the Student Services Building. They are intended to meet short-term parking needs. The cost is 25 cents for each 15 minutes (meters accept quarters only).

Performing Arts Center

Located off Jacaranda Road and Bear Valley Road at the center of the campus, the PAC (Building 54) is a 493-seat proscenium theatre that supports professional dance, ballet, symphony, musical and dramatic stage productions, choral concerts and a wide variety of community events. Seminars, travel lecture series, public forums are also supported. For event information 24 hours a day, call: (760) 245-2787 (A.R.T.S.)

VICTOR VALLEY COLLEGE PRESENTS — A delightful season of live entertainment featuring professional, student and community talent. There's something for the entire family on the calendar including Theatre, Music & Song, Special Events, Travelogue and so much more. For ticket information call (760) 245-4271, extension 849.

Past performances include: Shirley Jones, John Raitt, The Joffrey II Ballet, Montovani Orchestra, Western Opera Theatre, Glenn Miller Orchestra, California Shakespeare Festival, Guthrie Theatre, Bella Lewitsky, and others.

Organizations or individuals wishing to use this facility should call the Performing Arts Center Coordinator (760) 245-4271, extension 2440, regarding availability and rental fees.

Restrooms

Restrooms for men and women are located in most main buildings on campus.

Student Activities Center/Community Conference Center

Located at the east end of the lake, this building (Building 44) is a central gathering place for students, faculty, staff and the VVC community.

Included in the center are the Associated Student Body (ASB) offices, Computer Room, Conference Center, Faculty/Staff Dining (Desert Rock Café), Hunger Zone (bakery, pizza, subs), Taco Bell, Foundation Office, Rams Bookstore, and the Campus Police Services.

The elevator complex connecting lower and upper campus empties onto the Student Activities Center patio.

Student Services Building 1

A "one-stop" student center for admissions (Building 52), assessment, orientation, advisement, registration, Bursar (fees) and financial aid.

Student Services Building 2

Located on the east side of the lake (Building 50) just east of the Performing Arts Center. This building includes DSPS, EOPS, CARE, and the ACT Lab. (This building also includes a CIT classroom.)

Telephones and Vending Machines

Public telephones have been placed at several locations around the campus for the convenience of students. Pay telephone locations include the Student Services Building (2), Library, Allied Health Building, Technical/Vocational Complex, Gym, Science Lab Building, Student Activities Center and Humanities Complex.

Telecommunication devices for the deaf (TDD) have been placed on the telephone located in the Student Activities Center.

Vending machines dispensing a variety of food and beverage products are located throughout the campus. School supply vending machines will be strategically placed during the 2004-2005 year. The locations include the Science Lab Building, Allied Health Building, Humanities Complex and the Technical/Vocational Complex.

Ticket Information Center

Located east of the PAC just off parking lot 6 (Building 53). Tickets for college-sponsored events may be purchased in person Tuesday-Friday from 10:00 a.m.-6:00 p.m. Call (760) 245-4271, ext. TIX (849) for ticket information.

III.
ADMISSIONS AND RECORDS

"Learning is not attained by chance, it must be sought for with ardor and attended to with diligence."

-Abigail Adams
1744-1818

ADMISSIONS

For more than 35 years, Victor Valley College has provided educational opportunities to students with courses and programs of study which meet the diverse needs of students within the entire community.

While most students admitted come from within the Victor Valley Community College District, the college will admit students who live outside the district. Residents of the district may also apply to other California community colleges if they choose. Admissions procedures are basically the same for most students.

However, some programs are considered impacted and may require special procedures and approvals for admission. Impacted programs include the Registered Nursing, Respiratory Therapy, Media Arts and Paramedic programs. The Office of the Dean, Vocational Programs, located in the Voc Ed Building 8A, can provide details regarding application procedures and deadlines for these programs. Directors of the individual programs will also provide application information.

Students who are eligible to attend Victor Valley College should first be admitted to the college, and then register for classes prior to the semester in which they start school.

Eligibility

Admission to Victor Valley College is governed by the laws of the state and such supplementary regulations as have been prescribed by the Board of Trustees.

Students must meet one of the following criteria to be eligible for admission to Victor Valley College:

- California residents who have graduated from an accredited high school, or who have passed the California High School Proficiency Examination or the General Education Development (GED) test;
- Previous students at Victor Valley College who left in good standing and who have not attended another college or university;
- Transfer students eligible to return to the college or university which they previously attended;
- Any apprentice, as defined in Section 3077 of the Labor Code;
- Out-of-state residents who have graduated from high school;
- Foreign students who meet the requirements for foreign student admissions and apply by the current deadlines for foreign student admissions;
- California residents who are at least 18 years old, but have not graduated from an accredited high school or passed a high school proficiency or GED test. These students must have previous training, work experience, or assessment results which demonstrate they would benefit from attending Victor Valley College.

Residency Requirements

As a public community college under California law, Victor Valley College is bound by certain legal requirements pertaining to residence which must be observed. Residence is that location with which a person is considered to have the most settled and permanent connection. It is that place where one intends to remain and where one intends to return during absences. Legal residence results from the union of act (physical presence) and intent. (Ed. Code 68062) Residency determination date is the day before the first day of classes for each semester. Residence rules are as follows:

1. *California residence*: Proof of one continuous residence year in California prior to the above residency determination date is required for purposes of tuition-free education.

2. *Nonresidents and foreign students*: Foreign students may be admitted to VVC provided their applications are approved by the Director of Admissions. A nonresident tuition fee will be charged students who are classified as foreign students and those who do not meet the one-year California residence requirements. The fee is determined by the VVC Board of Trustees.

3. *Member of military*: An active military student must provide the Office of Admissions with a statement from the student's commanding officer or personnel officer that the assignment to active duty in the state is not for educational purposes. The student must also produce evidence of the assignment date to California.

4. *Military dependents*: A dependent natural or adopted child, stepchild or spouse of a member of the armed forces of the U.S. should provide the Director of Admissions with a statement from the military person's commanding officer or personnel officer that the military person's duty station is in California on active duty as of the residence determination date or is outside the continental U.S. on active duty after having been transferred immediately and directly from a California duty station. A statement that the student is a dependent of the military person for an exemption on federal taxes should also be provided.

Authority To Determine Residence

The Director of Admissions is the college official responsible for making residence decisions.

Students who need clarification on their residence status may contact the office of Admissions and Records.

Victor Valley College

Requisito Legal: La ley del estado del California (Código de educación de California, Capítulo Uno, Artículo Uno, empezando con sección 68000-70902) requiere que cada estudiante matriculado o que está solicitando admisión en un Community College de California provea tal información y evidencia según la necesidad de determinar como el individuo se clasifica en cuanto a su residencia. La responsabilidad de la veracidad de la evidencia presentada para probar la condición de su residencia es enteramente del estudiante.

EL PROCESO PARA ESTABLECER RESIDENCIA EN CALIFORNIA

Residencia Física En California
Los siguientes requisitos son usados para determina la presencia fisica en el estado de California:

- Adultos con más de 18 años y son ciudadanos de los Estados Unidos que han declarado su residencia en California por más de un año y un día antes del primer día de instrucciones o de semestre y se ha sostenido independientemente por aquel tiempo y presenta los requisitos de residencia.

- Personas de menos de 18 años que depende de un residente legal del estado de California por más de un año y un día antes del primer día de instrucciones o de semestre de admisión que requiere una clasificación.

NOTA para los que no son ciudadanos de los Estados Unidos:

El esado residencial de los no inmigrantes van hacer evaluados y dependiendo en sus estados o el tipo de visa que tienen se va usar para establecer la residencia en el estado de California y el intento de ser California como residencia permanente. Los estudiantes con las siguientes visas B, C, D, F, H-s, H-3, J, M, O-2, P y Q Y los estudiantes que no viven en los Estados Unidos legalmente no están permitidos a establecer residencia en California.

El Intento de Declara Residencia Fisica en el Estado de California

El periodo de un año empieza cuando uno no solamente está presente en California pero también ha demostrado clara intención de hacerse residente permanente de California. **En solo vivir en este estado por uno año no representa el intento que uno es residente.** Reglas de residencia: Pueden establecer residencia en Callifornia con los siguientes criterios:

- Mostrar una dirección de domicilio en California en los documentos de impuestos estatales.

- Mostrar una dirección de domicilio en California en los documentos de impuestos federales.

- Documentos que demostré la entrada a California en forma de un acuerdo legal (ejemplos: casamiento u divorcio)

- Poseer documentos que son requeridos por las fuerzas armadas y que demostré el estado de California como residente

- Obtener una licencia de California para práctica profesionalmente

- Registrarse para votar y votar en California

- Mantener California como su estado legal de residencia en el formulario W-2

- Establecer y mantener activas y abiertas cuentas bancarias en California y con su dirección postal (Apartado Postales no se permiten)

- Poseer propiedad donde se reside o continuamente ocupar propiedad alquilada en California

- La tarjeta de registro del *SELECTIVE SERVICE* con una dirección postal en el estado de California

- Facturas de cuentas de servicios como de gas, agua, electricidad y teléfono y que tienen un periodo de un año antes de ingresar

- Poseer documentos por el estudiante como residente que han recibido ayuda de rehabilitación, desempleo, welfare, u otros servicios estatales

- Poseer placas de un vehículo motorizado y registro del mismo en California

- Poseer una licencia de conducir de California

NOTA: Se requiere **dos** de los documentales menionado, uno con la fecha de un año y un día antes que empieza el semestre o secesión que usted piense ingresar y el segundo puede ser reciente.

Miembros de las Fuerzas Armadas y/o Dependientes

El colegio de Victor Valley College va a clasificar a los miembros de las fuerzas armadas que no son residentes de California y que están estacionados in California en estado activo como residentes. Sólo se necesita una tarjeta de identificación y que indica que están en un estado de servicio activo. El estado de estos estudiantes será verificado semestre por semestre.

Los dependientes de los miembros de las fuerzas armadas y que no son residentes del estado de California serán clasificados como residentes mientras el miembro de las fuerzas armadas esta estacionado permanentes en California.

Special Part-time Students/Special Full-time Students

K-12 students may be admitted as concurrently enrolled students if they:

- Apply as special part-time students who would benefit from advanced scholastic or technical study and have the approval of the principal of the school they attend and the approval of their parents, or
- Apply as special full-time students who would benefit from advanced scholastic or vocational study and have the approval of the school board in the area in which they live and the approval of their parents.

Admission By Petition

Students on academic or progress dismissal may be admitted to Victor Valley College by petition through the Counseling Office.

This includes both students on academic or progress dismissal from Victor Valley College and students who have attended other colleges and universities.

Out-of-state residents who are under 18 years old and have not graduated from an accredited high school or students who have passed the GED test also must petition for admission.

Petitions must be submitted to the college Petitions Committee prior to the beginning of classes. Students must demonstrate that they can benefit from enrolling in further course work.

Students admitted by petition may have limitations placed on their class loads, be required to enroll in prescribed courses, or have their attendance and academic progress monitored.

International Students

All international students must be at least 18 years of age at the time of registration for classes.

An international student attending on a nonimmigrant student visa (F-l) is required by the United States Immigration and Naturalization Service to maintain full-time student status. This requires a completion of a minimum of 12 units for each semester in attendance.

A certificate of eligibility for nonimmigrant (F-l) student status will be issued by the Admissions Office only after the following documents are received and approved:

1. F1 Visa Student Agreement
2. Application for Admission
3. Financial Certification
4. A score of 500 or higher on English proficiency tests such as the TOEFL
5. Health Questionnaire
6. High School Transcripts
7. College Transcripts (if applicable)

Fees set by the California Board of Trustees must be paid in advance.

For further information, please contact the office of Admissions and Records.

REGISTRATION

Registration is the process of becoming officially enrolled in college.

Properly completing all steps of the most current registration process is the responsibility of the student.

Students who have expressed an interest in Victor Valley College should obtain a Schedule of Classes prior to the beginning of each semester.

Victor Valley College's current Schedule of Classes for the fall, winter, spring, and summer terms contains complete instructions on how to register using ***RamTalk/Web*** Registration.

Students (other than K-12) may register for classes using ***RamTalk***, the phone-in registration system, or by using the registration link through our website: www.vvc.edu. A ***RamTalk/Web*** Registration Help Line is available for assistance or questions. Call on any scheduled ***RamTalk/Web*** Registration day (760) 245-4271, extension 2354.

Registration and other deadline dates are available in the Schedule of Classes and on our website.

Students who do not properly complete the registration process, cannot be admitted to classes or receive course credit.

Registration is a privilege and may be withheld if a student has outstanding loans, unpaid parking fines, returned checks, library fines, or has not returned physical education materials and/or equipment or has other outstanding financial obligations to the college.

Students who experience academic difficulties may also be limited as to the number and types of courses in which they will be permitted to enroll.

Student Registration Priorities

To ensure open access to classes for students on a first-come, first-served basis, students are scheduled for registration based on the following priority:

1. Continuing/New/Returning Disabled students
2. Continuing/New/Returning EOPS students
3. Victor Valley College continuing students

4. New and returning students
5. Special full-time students (K-12)
6. Special part-time students (K-12)
7. Non-credit students
8. Auditing students

Note: Please read "W" Grade Symbol on page 26 for registration priority for courses for which excessive W's have been earned.

Requirements For Registration

The Office of Admissions and Records must receive all required materials prior to registration at Victor Valley College. Required materials include:

- A completed admissions application and statement of legal residence to the college. Hard copy or online.
- For veterans, receipt of a copy of honorable discharge papers or DD 214. Veterans or military personnel on active duty should submit certificates of completion of courses in the military after completion of 12 units at Victor Valley College.
- Applicable International Student forms (see page 15).
- Establishment of California residency, without which non-resident tuition must be paid (see Non-Resident Tuition section in Section VI-Financing Your Education).
- The completion of all admissions procedures, orientation, assessment, and program advisement requirements, except for the exemptions noted in class schedules.
- Concurrent Enrollment Form (K-12)
- Students (other than Concurrent K-12) may register for a maximum of 18 units for either fall or spring semester. Concurrent K-12 students may register for a maximum of 11 units for either spring or fall semester. All students may register for a maximum of 8 units for the winter or summer session.

To complete the registration process, all forms must be completed and all required fees paid.

Priorities for registration are determined at the time of admission to Victor Valley College.

Adding and Dropping Classes

It is the student's responsibility to complete the drop and/or add process.

Students who want to drop or add a class should do so as soon as possible after classes begin.

Forms to drop or add a class are available at the Office of Admissions and Records. Students may also use ***RamTalk/ Web*** registration at certain times during the Registration cycle to process adds and/or drops.

If a class has **full** enrollment and is closed to **registration,** a student must obtain the instructor's permission with a signed add form, which must be brought to Admissions and Records for processing.

Transcripts for Admissions

Transcripts from other colleges and universities must be received by the Office of Admissions and Records no later than the end of the first semester of attendance.

Transcripts received become the property of Victor Valley College and cannot be returned to the student or forwarded to other schools.

Courses, units, and grades which are accepted from other accredited colleges and universities will be applied toward the completion of academic degrees or certificates of completion at Victor Valley College.

Transcripts from foreign schools or universities must be evaluated by an approved credential evaluation service.

Prerequisites, Corequisites, Advisories

Victor Valley College enforces the prerequisites, corequisites, and limitations on enrollment which have been formally established and are listed in the class schedule and college catalog. In some cases students will be responsible for submitting at the time of admission, documentation that they have met all prerequisites. If you attempt to enroll in a course but do not meet the enrollment conditions, you may be dropped from the course.

1. A "Prerequisite" is a course or other condition of enrollment which a student must meet with a grade of "C" or better before enrolling in a course or program.
2. A "Corequisite" is a course which a student must take simultaneously in order to enroll in another course.
3. An "Advisory" or recommended preparation, is a course or other condition of enrollment which a student is advised, but not required to meet, before or concurrent with enrollment in a course or program.
4. "Limitations on Enrollment" are conditions for enrollment in honors courses or courses which include public performance or intercollegiate competition.

Any student who does not meet a prerequisite or corequisite, or who is not permitted to enroll due to a limitation on enrollment, may seek entry into the class through initiating a challenge based on one or more of the following reasons:

1. The prerequisite, corequisite, or limitation on enrollment violates VVCC District Policy 5109.
2. The prerequisite, corequisite, or limitation on enrollment violates Article 2.5 of Title 5 of the California Administrative Code.
3. The prerequisite or corequisite is unlawfully discriminatory or is being applied in such a manner.
4. The student has the knowledge or ability to succeed without meeting the prerequisite, corequisite, or limitation on enrollment.
5. The prerequisite or corequisite has not been made reasonably available and the student as a result will be subject to undue delay.
6. A limitation on enrollment will delay by at least one semester the attainment of a degree or goal specified in the student's Education Plan.

7. Enrollment will not pose a threat to the student or others in a course with a health and safety prerequisite.

The Challenge Process requires the approval of a fully completed Challenge Form available from the Dean of Students Office. Challenges involving academic qualifications, health and safety, or noncourse prerequisites such as interview or recency require approval of the chair of the department in which the course is offered. Challenges based on unlawful discrimination require approval by the VVC Affirmative Action Officer.

Complete and documented Challenge Forms must be submitted by June 30 for the fall semester, October 15 for the spring semester, and April 15 for the summer term. Late challenges will be considered but enrollment will not be guaranteed pending their resolution. For more details contact the Office of Admissions and Records or Dean of Student Services.

IV.
SERVICES FOR STUDENTS

"Education is not preparation for life: education is life itself."

-John Dewey
1859-1952

BASIC SKILLS

The Basic Skills program is housed in the Humanities Center on the lower campus. Ten Basic Skills courses provide students with the foundational skills in reading, writing and mathematics need to complete further introductory college courses. These courses are one credit, open entry/open exit and allow the student to work at his or her own pace. Basic skills courses do not apply to the Associate Degree. All students registered for Basic Skills courses must attend an orientation before they undertake their work.

Maximum Units in Remedial Classes

Students at Victor Valley College are eligible to enroll in a cumulative maximum of 30 semester units of remedial classes including reading, writing, mathematics, learning skills, and study skills courses. For example, the Basic Skills Program includes 10 one credit courses which would count as remedial level work. Remedial classes also include English as a Second Language (ESL) courses which are designed to ensure acquisition of skills necessary for completion of associate degree, transfer, and technical courses.

Students identified by the district as being learning disabled are exempt from the 30-unit maximum. Students with other types of disabilities may be exempted on a case-by-case basis.

Waivers of this policy may be made for students who show significant, measurable progress toward the development of skills appropriate to their enrollment in college-level courses, yet need limited course work beyond the 30 semester unit limit. Significant and measurable progress is defined as completion of precollegiate basic skills classes with grades of "C" or better, or a grade of "credit" if the course is categorized as mandatory credit/non-credit.

The Petitions Committee is granted the authority to issue Remedial Semester Unit Limitation waivers.

Unless provided with a waiver, students who do not attain full eligibility status for college-level work within the prescribed 30 semester unit limit are to be dismissed and referred to adult non-credit education courses.

Dismissed students may petition for reinstatement for the purpose of enrolling in college-level course work upon successful completion of appropriate adult noncredit classes or upon demonstration of skill levels which can reasonably be expected to assure success in college-level courses.

CAREER CENTER/ TRANSFER CENTER

Students interested in obtaining career information or transfer options should visit this unique multifaceted center.

Career Center

Trained staff, utilizing computerized guidance programs and professional publications, will assist you with career research. An extensive library of career related material can be used to discover career alternatives and identify your educational goals.

Transfer Center

The Transfer Center provides interaction with four-year institutions for those students who wish to continue their education. Appointments with CSUSB and UCR representatives are available on a regular basis. An annual College Fair is held in the Fall. Computers are available for applying to the four-year colleges on line, and locating education programs nationwide.

The Career/Transfer Center is located in the Counseling/Administration Building. The Center is open Monday through Friday, 8:30a.m. to 5:00p.m. For further information, call (760) 245-4271, extension 2447.

COOPERATIVE AGENCIES RESOURCES FOR EDUCATION (CARE)

An educational support program for single parents over 18 years of age. CARE has been funded by the state of California since 1989. CARE is educationally emphasized to enhance employability, increase confidence, elevate self-esteem and promote self-sufficiency to make possible the transition from welfare to independence.

Services include: financial aid grants-child care, books, and/or transportation, school supplies, typing services, study room, and personal educational options development counseling. Referrals and liaison to on-campus and community agencies. Support programs include: group weekly meetings, family day, adults day, and the "famous" Wall of Encouragement.

To qualify for CARE, a single parent must be eligible and active with the EOPS program and must be enrolled in twelve units, and have applied for financial aid. You must be considered single and head of the household by AFDC/TANF or CalWORKs and have at least one child under the age of fourteen.

To apply either attend the CARE Intake/Orientation or view the Intake/Orientation video. To find out more, come to the CARE office located in the Student Services Building 2. Office hours are Monday through Friday, 8:30a.m. to 5:00p.m.

COUNSELING SERVICES

Counseling services are available to all students. Students are invited to come in for confidential help in strengthening academic performance, selecting an educational major, developing educational and career plans, solving situational problems, and improving self understanding.

Career Planning

Counselors can assist students with exploring career options. Students are also encouraged to enroll in a career planning class, GUID 100. This educational planning class helps students discover their own interests, attitudes, and values and will help them make an initial career choice.

Academic Counseling

Counselors are available to help students plan their long and short-term educational careers.

Advice on setting educational goals and matching classes to a student's particular needs are some of the types of guidance to be obtained through academic counseling.

Information on the college's requirements for certificates of achievement and A.A. or A.S. degrees is available, as are transfer requirements to other schools.

Social/Personal Development Counseling

All through life, people must fit into society at work and in their leisure time.

To make this process easier for students, the college offers both individual consultations with a counselor and special group sessions through the personal development courses, such as GUID 59, 100 and 105 (see course descriptions in Section IX).

The college maintains a staff of professionally educated counselors to serve its students. Counseling services are available to every student and member of the college community. With professional counselors, students may explore freely and in confidence concerns which are important to them.

DISABLED STUDENTS PROGRAMS and SERVICES (DSPS)

Disabled Students Programs and Services provides individualized accommodations and services to students with various disabilities who are determined eligible for the program. Students with disabilities which will impact their academic experience at Victor Valley College and who want to receive services, must apply at the DSPS office. Students will be asked to provide appropriate documentation to verify their disability, or at least provide information as to where DSPS may obtain this documentation. The campus of VVC is accessible to students with mobility impairments. Department of Motor Vehicles (DMV) placards or disabled plates are required for the use of disabled parking. The DSPS is located in Student Services Building 2.

Who may be eligible?

Currently enrolled students with disabilities which impact them academically may be eligible for DSPS services. Examples of disabilities, which may impact the academic experience, are:

- **Learning Disabilities Program**
  Students with learning disabilities typically have average or above average intelligence, but experience difficulty processing information. For these students, information becomes "scrambled" as it is taken in through the senses, carried to the brain, stored, or expressed through speech and writing.

- **Physical or Other Disabilities**
  Eligible students include those with mobility impairments, visual and/or hearing impairments, acquired brain injuries, back injuries, diabetes, heart conditions, psychological disabilities, or any other physical impairment, which interferes with academic functioning.

What types of services does DSPS offer?

DSPS offers a wide variety of accommodations and services including specific academic support for students with learning disabilities, as well as individualized training in the use of adaptive computer technology in the Adaptive Computer Technology Center.

- **Adaptive Computer Training Center**
  The primary purpose of the ACT Center is to teach needed adaptive technology skills to individuals with disabilities. The acquired skills will empower these students with disabilities to work independently on computers at home, at work, and in campus labs, classrooms, and the library.

- **Accommodation Services**
  Eligible students will meet with a DSPS counselor or Learning Disabilities Specialist/Counselor to determine individualized accommodations required. Accommodations may include, but are not limited to: alternative testing, academic and vocational counseling, priority registration assistance, text in alternative format, note taking assistance, sign language interpreters, ACT Center referral, study skills instruction, equipment loans, liaison with faculty, and referral to public agencies.

- **DSPS Courses**
  DSPS also offers courses in the area of disability related issues designed to provide information, support, and strategies to students with disabilities. These include:

  1. Guidance 16, "Learning Disabilities Assessment," which assesses a students' eligibility for learning disabilities services according to statewide criteria.

  2. Guidance 70, "Alternative Learning Strategies," which provides students with learning disabilities the opportunity to identify their individual learning styles and to investigate compensatory learning strategies.

3. DVST 1, 2, 3, "Language Analysis Development," which provides activities designed to address language based learning disabilities.

EXTENDED OPPORTUNITY PROGRAM AND SERVICES (EOPS)

Extended Opportunity Program and Services (EOPS) (a state-funded program) provides book service, tutoring, career counseling,work/study programs, student assisting, priority registration, and other support services to disadvantaged Victor Valley College students.

To be eligible for EOPS, a student must be a resident of California and be enrolled in at least 12 units of classes, but not have received an associate's degree (AA/AS) or completed more than 70 degree applicable units from any college, including Victor Valley College. Students must also be qualified for the Board of Governors Waiver A or B (financially disadvantaged) and be educationally disadvantaged based on Victor Valley College Assessment Scores.

To become eligible for EOPS, students must submit an EOPS application to the EOPS Office located in the Student Services Building 2. Office hours are Monday through Thursday from 8:30a.m. to 5:00p.m. and on Friday from 8:30a.m to 2:00p.m.

LANGUAGE LAB

Located in the Humanities Center (HC 10), the Language Lab is part of the English as a Second Language (ESL) and Foreign Language Departments. The purpose of the lab is to support faculty in foreign language instruction and provide supplemental support for language students studying ESL or a foreign language.

There is a wide variety of supplemental material for language students, i.e., software, audio tapes and CDs, to assist in promoting language learning. Students may use the computers for receiving and sending ESL assignments via e-mail, for ESL and foreign language word processing assignments, and for accessing ESL or foreign language websites. Call 245-4271, extension 2655 for information on hours.

ACADEMIC COMMONS

The Academic Commons (BLDG. 42), supports most courses at Victor Valley College. Services include computer software provided on 85 computer workstations for BET, CIS, and The Learning Center, which includes math, English, biology, chemistry, philosophy, psychology, real estate, anatomy, Spanish, religious studies, economics, political science and more. Some of these programs include CD-ROM applications, which provide audio and video presentations of the material. The Commons also offers Internet access and word processing for all registered students doing class-related work. *NOTE: Printing of assignments is limited to 10 pages per day.*

Tutoring assistance is available in a variety of subjects for all current VVC students. Students can make a one-hour appointment, per week, per subject at no charge. Walk-in tutorng is available during scheduled times throughout the week, if tutors are available in the subject needed. BET tutors do not make appointments, but they do circulate among the computers to assist where needed. CIS tutors also circulate, but they do make tutoring appointments.

The Academic Commons currently houses classrooms for BET and CIS classes, the Cooperative Education Office, the Allied Health lab, the Help Desk, the Dean of Academic Programs & Social Sciences Office, and offices for CIT, BET, and Business Administration faculty.

Students must have current Student ID cards, sign in on Accutrak for all services in the Academic Commons, and please turn-off cell hones and pagers before entering the building.

Please call (760) 245-4271, ext. 2240 for questions or additional information; OR come visit us on the web at: www.vvc.edu/offices/lc/academic_common.htm.

STUDENT ACTIVITIES

Many activities and services are available to students who attend Victor Valley College.

College services help facilitate each student's educational career and should make college life more pleasant and productive while students pursue their educational goals.

Student Body Privileges

Every student enrolled at Victor Valley College is a member of the student body and is entitled to participate in both academic and extracurricular activities at the college.

The Associated Student Body (ASB) is the organization which constitutes official membership in the community of students at Victor Valley College.

ASB fees are $10 for all students. These fees are used to support the Athletic programs, Theatre Arts productions, student events and also afford the student availability to scholarship programs, discounts and access to the Student Activities Computer room.

Students receive an ASB card which entitles them to reduced admission to all ASB activities and free copies of the Victor Valley College newspaper/newsletter and other campus publications such as the college viewbook. The College Web Page address is: www.vvc.edu.

In addition, ASB card holders are eligible to be employed by the Associated Students, to compete for Associated Student awards, scholarships, and to hold office in student government.

Full refund of ASB fees, less the cost of photo identification, is permitted for students withdrawing from all classes prior to the first day of the semester.

Student Clubs

Clubs for students with a variety of special interests are an ongoing part of campus life at Victor Valley College. A complete listing of clubs is available from the Office of the Associated Student Body (ASB).

Students interested in a particular activity find that campus clubs are a good way to meet other students and share ideas and information.

Interested students may join a club of their choice by contacting the club's president or advisor.

Among the clubs now in existence are the Honor Society Phi Theta Kappa, Black Student Union, Creative Writing, Drama, Geology, Volleyball and Woodworking.

The VVC Rambassador Program is a student organization aimed at enhancing existing community outreach through campus tours, college fair exhibits and group presentations--all from a VVC student perspective. Current VVC students volunteer their time and energy by sharing their experiences with prospective students at high schools and other area community agencies or businesses. They may also participate in the peer support component, which serves to assist fellow continuing students with their acclimation to college life. Dedicated Rambassador volunteers often make excellent candidates for paid leadership positions in the club. Whether as a leader or a volunteer, Rambassadors enjoy many benefits, such as teeshirts and other exclusive Rambassador logo gear. More importantly, they gain an intrinsic reward from helping others reach their goals, while learning acute professional skills.

To learn more about the Rambassadors or to take advantage of their services, please call faculty mentor Mike McCracken (VVC extension 2677) or the Rambassador office in the Ticket Information Center (VVC extension 2733).

Student Government

As members of the Associated Student Body of Victor Valley College, all students are eligible to vote for student representatives to student government and to participate in the government of their campus.

Elections for the ASB Council are held in the spring of each year. ASB election information is available through the ASB office located on the 2nd floor of the Student Activities Center. ASB Council meets on a regular basis and determines social policies and program activities for students at Victor Valley College. Students on campus are encouraged to bring matters of interest before the council or to sit in on student council meetings.

According the ASB Constitution, ASB students who are taking six or more units with a cumulative grade point average of 2.0 are eligible to run for office or be appointed to student government positions.

The student council's executive board consists of a President, Vice President, Executive Senator, Secretary and Treasurer.

A number of student senators sit on the student council as representatives of various departments on campus.

ASB Council members have membership on governance committees that have a significant effect on students.

STUDENT EMPLOYMENT OFFICE

The Victor Valley College Student Employment Office is established for the purpose of assisting students in securing employment.

The Student Employment Office interviewers are sensitive to the needs of the student, as well as the employer, and are committed to a program of personal attention to both participants.

The Student Employment service is one of matching the interests, training, and work history of the student to the job qualifications listed by the employer.

- Permanent — Temporary
- Graduates — Alumni
- Part-time — Full-time
- Days — Evenings
- Seasonal — On-call

Services Include

- Technical support services available through the Internet, JobTrak, CalJOBS, a "computer-aided" in-office job search program, and much more
- Coordination of placement, "on" and "off" campus, for eligible Federal Work Study and CalWORKS students
- Assistance with resume-writing and interview techniques.

THE WRITING CENTER

Located in the Humanities Center (80-5), the Writing Center instructional assistants and student tutors are trained to work with students in a variety of writing tasks, including generating ideas, focusing on topics, adding support, organizing ideas, revising essays, researching ideas, documenting research, as well as recognizing grammar, punctuation, and spelling errors.

Software programs, word processing, and reference texts are available to help students. Tutors can also instruct in computer operations. Students from all disciplines are welcome. For information on services and hours of operation call (760) 245-4271, extension 2607. For those students not regularly on campus, visit our website for writing information and online tutoring: www.vvc.edu/writingcenter/index.htm.

V.
MANAGING YOUR EDUCATION

"Man must acquire wisdom and knowledge in order to express himself and reach decisions."
"Man must acquire the skill to transfer ideas and judgements into action."
"Man must seek morality, goodness, and virtue."

-Hesiod, 753-608 BC
'The History of Educational Ideas In The West'
Chapt 1, pgs 15, 16

MATRICULATION

Matriculation is a process that brings a college and a student who enrolls for credit into an agreement for the purpose of realizing the student's educational objective through the college's established programs, policies, and requirements. As a student you have certain rights and responsibilities, and as an institution of higher learning, Victor Valley College has some obligations to you. Here is a brief overview of some of these factors.

VVC agrees to...

- provide admission and registration services
- provide assessment services
- orient you to college programs, services and policies
- provide assistance in selecting courses and defining an educational major and plan
- provide support services
- provide quality instruction
- provide appropriate follow-up and referral services

VVC students agree to...

- declare a broad educational goal on initial enrollment (transfer, AA. . .)
- participate in assessment and orientation and have all prior transcripts sent to VVC
- read the Catalog, Schedule of Classes, Student Handbook and other college materials
- meet all course prerequisites, corequisites and limitations
- attend the first class session of each class and regularly attend all classes
- properly add and drop all classes
- complete class assignments
- develop an Educational Plan and choose a specific educational major by the completion of 15 units
- seek support services as needed
- make progress toward your goals by successfully completing classes
- follow all campus rules and regulations.

Matriculation Steps

The objective of Matriculation is to attain your goals in education by defining an agreement between you and the college. Responsibilities are established that utilize the programs and resources of VVC to efficiently complete certificate or degree programs.

APPLICATION - Complete VVC admission application and turn in to Admissions and Registration or process admissions online. Notify previous colleges to send transcripts to VVC.

ASSESSMENT - Complete the computerized Assessment/ Placement process for reading, writing and math as one component of course selection.

ORIENTATION - Computerized orientation is available to familiarize you with VVC policies, programs, and services.

ADVISEMENT - During registration periods, counselors are located in the Student Transition Center to provide initial advisement.

Assessment Exemptions: If one of the following conditions applies to you, you may choose not to complete the Assessment and/or Orientation. Provide documentation supporting your exemption to the Counseling Office.

- You have received a degree from an accredited college.
- You completed Elementary Algebra and/or English lA at an accredited college.
- You have completed the Computerized Placement Test at another California Community College within the last three years.
- You will enroll in only non-credit classes (Adult/Continuing or Community Service).
- You are completing coursework for self-improvement (non-degree seeking).

Other factors considered in the selection of courses include study habits, certainty of educational goals, specific skills, emotional well-being, employment, family or other commitments, family support, health, maturity and motivation, self assessment, and education history, etc.

You have the right to challenge your Computerized Assessment Placement results and course recommendations. See page 16 for additional information.

- COUNSELING - Make an appointment with a VVC Counselor to discuss course selection, choosing an academic major, and developing an Educational Plan which lists the courses you need to meet your academic goal. The major and Ed Plan should be developed no later than the completion of 15 VVC credits, and may be revised as needed. Counselors can also assist with personal issues and career choice (as can the Career Center). Also, consider taking the following Guidance courses:

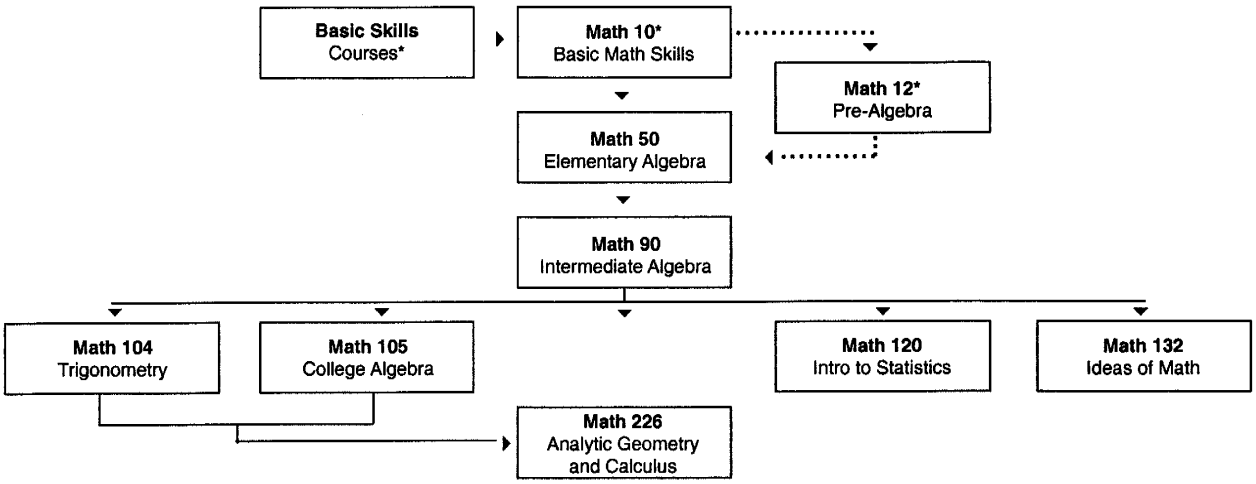
  GUID 59 - Reentry Issues for Personal Development
  GUID 59 - Self Esteem
  GUID 100 - Career Planning
  GUID 50 - College Success
  GUID 105 - Personal and Career Success

HERE'S WHAT YOUR ASSESSMENT SCORES MEAN!

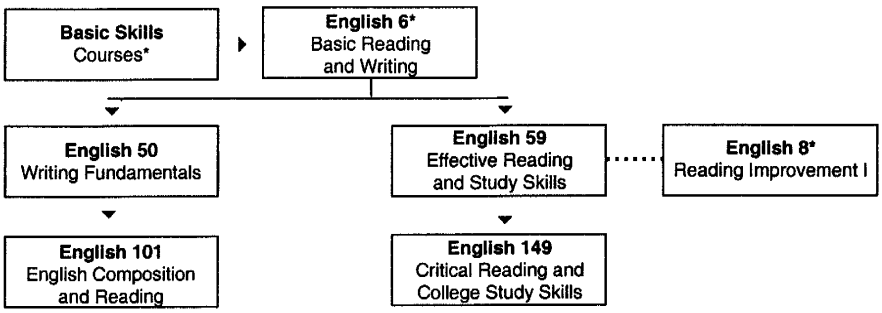
Everyone enters college with different levels of skill and experience in English, reading and math. Your assessment scores are one indicator of your level in each of these areas. Among the other factors to consider are what classes you took in high school, how well you learned that material, what you've done since high school, and your commitment to your educational goals.

The following tables show course sequences. Start at the right level and move through the courses as needed for your particular objective. If you're not sure where to start, see a counselor or a teacher in that area.

Math Course Sequences



English and Reading Course Sequences



*Does not count toward the associate degree

Important College Information Sources

Students should be familiar with the following sources of information about VVC:

SCHEDULE OF CLASSES - Each fall, winter and spring semester and summer intersession, VVC publishes a Schedule of Classes to be offered during that term. The schedule shows the course description, day, time, and location of each class. It also lists important campus policies. Schedules are posted on our COLLEGE WEBSITE at www.vvc.edu.

Challenge to Matriculation Policies

Students may appeal any portion of the matriculation policies (other than prerequisites, etc.) by contacting the Dean of Student Services Office. The policy for challenging Corequisites, and Advisories is listed on page 16. This includes claims that the process is unlawfully discriminatory or is being applied in such a manner. The Dean will conduct a timely review and make such adjustments as are appropriate. A record of all complaints will be maintained in the Dean of Student Services for three years.

Reto a la Política de Matriculación

Estudiantes pueden hacer una petición sobre cualquier parte de la política de matriculación (menos los requisitos) dirigido al Decano de Servicios Estudiantiles. Esto incluye reclamos acerca del proceso discriminatorio. El Decano va a conducir una revisión para hacer algunos ajustes que sean apropiados. Un record de los reclamos será mantenido en la oficina del Decano de Servicios Estudiantiles por tres años.

Units and Credits

One "unit" of credit represents one lecture hour per week, or three hours in a laboratory.

Students are considered full-time students if they take 12 or more units per normal 16-week semester, 6 units during an 8-week term, or 4 units during winter or summer sessions.

A common schedule is 15 college units per semester. With a normal course load, students may expect to devote 2 hours study time for every unit to support academic success equaling approximately 45 hours per week.

Students are limited to a maximum of 18 units per fall or spring semester. Concurrent students are limited to 11 units, and cannot petition. All students are limited to a maximum of 8 units per winter or summer session.

An exception is sometimes granted if a student has achieved a grade point average of 3.0 (a "B" average) or better and a request to take additional units is approved by the college Petitions Committee.

Grade Points

Final grades are issued after the close of each term. The determination of a student's grade by the instructor of record is final in the absence of instructor error, fraud, bad faith, or incompetence. College procedures for corrections of grades given in error include expunging the incorrect grades from the record.

The student has 2 years following the semester in which the grade was recorded to request a change of grade or to request any corrections to the academic record in which a grade was never awarded. After the 2-year limit, the grade, or any other corrections of the academic record are no longer subject to change.

Cumulative grade point averages are calculated by dividing the total number of **grade points** by the total number of **units attempted**. For the academic record, calculations are made on a semester and on a cumulative basis.

Here is the system of evaluative grade symbols and grade points currently in effect:

Grade Symbol	Explanation	Grade Points
A	Excellent	4.0
B	Good	3.0
C	Satisfactory	2.0
D	Passing	1.0
F	Failing	0.0

OTHER SYMBOLS:
(NOT CALCULATED INTO GPA)

CR Credit (not counted in GPA, equivalent to "C" or better)
NC No Credit (not counted in GPA, less than "C")
I Incomplete
W Withdrawal from class
IP In Progress—Class extends beyond the end of the academic term. Remains on the permanent record to satisfy enrollment documentation but is replaced by the grade and unit credit when the course is completed. Not used in calculating GPA.
RD Report Delayed—Assigned by the Registrar when the assignment of a grade is delayed due to circumstances beyond the control of the student. This is a temporary symbol, not to be used in calculating GPA, and to be replaced by a permanent grade as soon as possible.
MW Military Withdrawal—The "MW" is to be assigned for students who are members of an active or reserve military service and who receive verified orders compelling a withdrawal from courses. The "MW" symbol is not counted in Progress Probation and Dismissal calculations.

Satisfactory Standing

Each student's work is considered to be satisfactory if an average of 2.0, or "C" or better, is maintained.

Attendance

Students are expected to attend their classes regularly. Failure to attend the first class session may result in the student being dropped.

Failure to attend class jeopardizes not only a student's grades but the learning potential of the other students who were unable to gain access to the class due to enrollment limits.

The class instructor has the right to terminate a student's enrollment when a student is absent for more than one hour for each unit of class credit.

Authority of Instructors

According to Education Code Section 76032, faculty members have the authority to manage their classes and classrooms and to maintain an acceptable level of conduct within each class.

Faculty may suspend students from class for up to two consecutive class meetings for misconduct which disrupts the class.

Students suspended from class may not return to class during the time they are suspended unless permission to return is granted by the instructor.

Instructors must complete an incident report on all suspensions and forward the form to the Vice President, Student Services.

Withdrawal From Class

It is the student's responsibility to initiate the withdrawal or drop procedure in a timely manner. Don't just not show up! Don't just disappear! Non-attendance does not drop the student from a class or classes. A drop card must be completed and processed by the Admissions and Records office for a drop or withdrawal to be official. (***RamTalk/Web*** **can also be used for drops at certain times during the registration cycle.**) Drop cards are available in the Student Services Building.

Withdrawals should be initiated prior to the semester's first census day, which is Monday of the fourth week of each semester. Students may withdraw from classes of less than a semester in length during the first 20 percent of the class. In these situations, a "W" will not be recorded on a student's academic record.

Student or instructor initiated withdrawals after the end of the third week of classes and before the twelfth week for semester classes, or through the first 66 percent of class for other classes, will be recorded as a "W" on student transcripts. Students who do not withdraw by this time are grade obligated and cannot receive a "W."

In case of accidents, illness, or other circumstances beyond the control of the student, withdrawals may be initiated by petition after the designated time limit. Forms for this petition procedure are available in the Office of Admissions and Records in the Student Services Building. Approved petitions will result in a "W" recorded on academic records.

Academic Renewal Policy

Academic renewal is a process whereby a student's previous academic work of substandard quality is disregarded to facilitate the completion of requirements necessary for an academic degree, certificate, or transfer. A student whose current performance is demonstrably superior to a prior level of accomplishment may petition for academic renewal. The following conditions apply:

- The student may petition for academic renewal for not more than 24 semester units of work completed at VVC.

- The student must submit evidence that the previously recorded work was substandard and thus not reflective of current academic ability. Any of the following criteria will be accepted as evidence of current satisfactory academic performance.
  12-17 semester units with at least a 3.00 GPA
  18-23 semester units with at least a 2.50 GPA
  24 or more semester units with at least a 2.00 GPA

This more current coursework may have been completed at VVC or at other institutions.

- At least 24 months must have elapsed between the end of the semester in which the most recent disregarded academic work was completed and the submissions of the petition.

- A student may request academic renewal only once.

- Only "D," "F," and "NC" grades can be disregarded through academic renewal.

- The student's permanent record is annotated to remove the "D" and/or "F" grades from the calculation of the GPA. However, all work remains legible on the permanent record to ensure a true and complete academic history.

- The student should be aware that other institutions may have different policies regarding academic renewal and may not honor this policy.

Information on this policy is available from the Office of Admissions and Records.

Course Repetition

There are three situations in which students may repeat courses.

Courses with Repeatability

Repeatable courses are indicated in the course description as ones that may be taken again for increased skill development. Credit awarded for these courses may be applied to graduation and/or transfer each time they are successfully completed, within repeatability limitations (check with Admissions and Records or a counselor for the latest list).

Substandard Grades

College policy states that students who have earned substandard grades of "D," "F," or "NC" in a particular course may repeat that course one time to improve the grade.

Only the units and grades earned for repeated courses count toward graduation.

Students should note that their permanent records and transcripts are annotated to reflect every course they take at Victor Valley College. This ensures a complete and accurate transcript reflecting the student's academic history while at VVC.

Grades of "C" or Better

A course in which a grade of "C" or better is achieved may not be repeated by a student unless special circumstances exist for its repetition. The student must petition and the petition must be approved, **prior** to enrolling in a class to be repeated. Special circumstances for which a student may be approved for a petition include:

1) The lapse of time—a significant number of years—since the courses were previously completed.

2) Changes in course content since the courses were completed,

3) Need to acquire knowledge or skills in order to be able to progress to the next higher level course work,

   OR

4) Enrollment in the course for credit is required for recertification in a technical or medical field.

Grades and credits awarded for courses repeated under this policy are not counted in calculating a student's grade point average or cumulative credits. The student's academic record (transcript) remains legible so as to ensure a true and complete academic history.

When students are allowed to repeat courses in which a "C" or better was achieved the first time, only the units and grades earned for the first course count toward graduation.

Credit/No Credit Grade Option

Some courses may be taken for Credit or No Credit, which is recorded as a "CR" or "NC" on transcripts.

According to California regulations governing community colleges, a grade of "CR" is not counted in calculating a student's cumulative grade point average but is equivalent to a "C" or above. One or more grades of "NC" can be a factor in progress probation and dismissal.

For students working toward an associate degree, no more than 15 units of credit for CR/NC classes or courses may be taken at Victor Valley College.

Students who plan to transfer should note that the number of CR/NC courses they may transfer is determined by the policies of the particular college or university.

Students who wish to transfer have a responsibility to investigate the policies of colleges and universities in which they may be interested and to determine if particular courses taken for CR/NC will be accepted for transfer credit there.

Students should note that some graduate schools also do not look favorably on CR/NC grades.

Students who do elect to take the CR/NC grade option for a course should declare their intent by delivering a signed credit/no credit grade option form to the Office of Admissions and Records. Students should remember that their decision to take a course for CR/NC may not be changed after 30 percent of the class term has passed.

The deadline for electing to take a course for CR/NC is the end of the fourth week of an 16-week semester or the end of the second week for eight-week classes.

Incomplete

Incomplete academic work for unforeseeable, emergency, and justifiable reasons at the end of the term may result in an "I" symbol being entered in the student's record. The condition for removal of the "I" is stated by the instructor in a written record. This record is given to a student with a copy on file with the registrar until the "I" is made up or the time limit has passed. A final grade is assigned when the work stipulated has been completed and evaluated, or when the time limit for completing the work has passed.

The "I" may be made up no later than two weeks prior to the end of the second succeeding semester except that a student may petition for a time extension due to unusual circumstances.

The "I" symbol is not used in calculating units attempted nor for grade points, but may be a factor in probation and dismissal.

Students may not re-register for the course in order to make up the incomplete.

"W" Grade Symbol

Courses in which a student has received the "W" grade symbol may be repeated one time on a priority registration basis. Thereafter, registration for these courses is permitted during late registration on a space available basis.

Auditing

Auditing of classes is only permitted within these provisions:

1. Cost of audit is $15 per unit per semester.

2. Students enrolled in less than ten units will be charged the maximum audit fee allowed ($15 per unit per semester).

3. Students enrolled in ten or more semester units will be permitted to audit up to three units at no charge.

4. Students auditing courses cannot change enrollment status to receive credit for those courses.

5. Priority in class enrollment shall be given to students desiring to take courses for credit toward degree or certificate completion.

6. Students wishing to audit courses must meet course prerequisites and matriculation requirements.

(Education Code 72252.3)

Study Abroad

A student can take advantage of the unique opportunity of learning and living abroad. In recent years students have attended classes in England, Spain and Mexico. Students can earn 12 units of college credit towards a bachelor's degree and fulfilling general education requirements. For more information, call (760) 245-4271, extension 2318.

Veterans' and Service Credit

Victor Valley College allows service personnel and their dependents a maximum of 32 units (53 percent) of credit toward the A.A. or A.S. degree requirements to be completed through non-traditional means such as the College Level Examination Program, academic challenge examinations, or service credit.

These non-traditional units will be for elective credit, unless the student's major department of study recommends otherwise.

Veterans and active duty service personnel who have served a minimum of 180 days are considered to have satisfied the college's general education requirements in physical education. In accordance with American Council on Education recommendations, students in a six-month reserve training program are not eligible for this credit.
Other credit may also be granted for military service schools on receipt of proof of completion of courses in the service.

Requests for evaluating will be accepted once the student has completed 6 units at VVC. In its evaluation of such prior work, the college follows guidelines set forth in the American Council on Education publication, **A Guide to the Evaluation of Educational Experiences in the Armed Forces.**

Air Force ROTC

Through arrangements with California State University-San Bernardino (CSUSB), located only a short drive from Victor Valley College, the first 2 years of the Air Force ROTC program are available for all qualified VVC Students. Academic units earned in this program are counted as elective credits towards graduation. Successful completion of the Air Force ROTC program and a 4-year bachelor's degree leads to a commission as a Second Lieutenant with subsequent active-duty service as an officer in the Air Force. To participate in this program, you continue to attend your classes here, and sometime during the week (typically one day), you drive to the CSUSB campus where the Air Force ROTC classes are taught. You will also need to complete a concurrent admission form at CSUSB.

Scholarships

Scholarship opportunities, which pay up to $9000 tuition per year plus books/fees and a $150 monthly allowance, are available for qualified students in certain technical majors. Students accepted for the last 2 years of the program qualify for $3500 per school year.

Transfer To A 4-Year University

Upon graduation from VVC, students continuing in Air Force ROTC must transfer to a 4-year university in the Inland Empire (including CSUSB, California State Polytechnic University-Pomona, University of California-Riverside, and the University of Redlands) and complete a 4-year bachelor's degree. Entry into the last 2 years of this program is competitive and is based on students' academic qualifications, scores on physical fitness tests, and performance in Air Force ROTC leadership training.

Interested students may obtain more information by contacting CSUSB Air Force ROTC at (909) 880-5442, via email:afrotc@wiley.csusb.edu, or the Internet at http://afrotc.csusb.edu.

Credit By Examination

As authorized by Section 55753 of Title 5 of the California Administrative Code, students may apply for Credit by Examination.

After successfully completing 12 semester units of credit at Victor Valley College, a registered student may receive college credit for courses challenged through departmental examinations. These may be in subjects in which the student is qualified based on prior training and/or experience for which credit or advanced placement has not already been awarded.

Applications for this type of credit are available through Admissions and Records and must be approved first by the appropriate academic department. After credit by examination eligibility has been established, a non-refundable fee of $35 will be charged for each administered exam and is payable at the Bursar's Office.

Awarding credit by examination is subject to the following guidelines:

A request for credit by examination must be submitted by the fourth week of the term (second week for Summer courses).

The student must be enrolled in at least one course, maintain a 2.0 G.P.A. or better, and must have successfully completed 12 semester units of credit at Victor Valley College.

A faculty member must be willing to prepare an exam. If a faculty member is unavailable to prepare an exam, the challenge cannot go forward.

A course for which the student has received previous high school, college, or examination credit may not be challenged, except as specifically provided for by 2 + 2 agreements.

Credit by examination may not be received for any course which is a prerequisite to one for which credit has been previously granted.

In order to challenge, the student must not have previously failed the course nor have been enrolled in it during the semester for which the exam is requested.

A student may challenge a course only once.

Credit by examination cannot be used to satisfy Victor Valley College's 12 unit residency requirement for the Associate Degree.

A maximum of 32 units earned through nontraditional means (CLEP, AP, DANTES, Department Exam, Military) may apply toward the Associate Degree with no more than 15 units permitted for college courses graded on a CREDIT/NO CREDIT basis.

Credit by examination will be annotated "CREDIT" or "NO CREDIT" or A-F, with unit value and a notation entered on the transcript that credit was earned by "CREDIT BY EXAMINATION."

If the subject content of an AP or CLEP Subject Exam is comparable to or can be substituted for a course taught at Victor Valley College, the identified course will be recorded on the transcript, along with units credited.

College Board Advanced Placement (AP) Examination Program

Victor Valley College will grant credit for successful completion of Advanced Placement Program Examinations of the College Board for some AP exams. A maximum of 6 semester credits will be awarded to students who attain scores of 5, 4, or 3 with the exception of Chemistry, French, and Spanish which award 10 units. Subject credit may also be granted in those instances in which the department/division concerned has determined that the Advanced Placement (AP) exam content parallels a particular course taught by that department. The department/division recommends the appropriate AP course equivalency and the minimum passing score.

Advanced Placement credit and units will be applied toward the Associate Degree, but grades will not be entered on the student's transcript. After applying for admission, students who have taken and passed AP examinations should request that the Education Testing Service send the examination test report directly to Admissions and Records at VVC.

Students should be aware that other colleges or universities may have different policies concerning the granting of credit for advanced placement and may not award credit for AP exams or may award more credit for AP exams than VVC. It is the student's responsibility to contact other schools to determine the acceptability of any credit earned by examination. Credit will be awarded upon completion of 12 units at Victor Valley College. See Advanced Placement Equivalencies on page 33.

Military Service Schools and Defense Activity for Non-Traditional Education Support (DANTES)

Victor Valley College will award credit toward the Associate Degree for suitably validated military service training including military service schools and DANTES test scores. A standard guide to the evaluation of educational experiences in the armed service is used in evaluating military service school training.

College credit earned through military service schools will appear on the student's transcript as unit credit only, without an indication of grades. Credit evaluations are made after the student has completed at least 12 units at Victor Valley College. Successful completion of DANTES Subject Standardized Tests (DSSTs), using American Council on Education

(ACE) guidelines, will result in credit applied toward the Associate Degree.

College Level Examination Program (CLEP)

The College Board, with support from the Carnegie Corporation of New York, has established the College Level Examination Program (CLEP) to evaluate, confirm, and assess college-level achievement acquired outside of the conventional academic environment.

The CLEP is divided into general exams which measure college-level achievement in five basic areas of the liberal arts and 30 subject exams measuring achievement in specific college subjects.

CLEP credit is awarded in accordance with the American Council on Education (ACE) recommendations, and credits will be granted as follows:

1. General Examination (limit of 24 units)
   a. English composition (no credit will be awarded)
   b. Humanities (six units)
   c. Mathematics (six units)
   d. Natural science (six units)
   e. Social science and history (six units)

2. Subject Examinations Credit will be awarded in subjects comparable to those offered by Victor Valley College as recommended by VVC department/division faculty.

CLEP TEST DATES—CLEP examinations are given at specified dates and times at national test sites. The nearest CLEP test site is Barstow College, located at 2700 Barstow Road, Barstow. Registration is required one week in advance of the tests. Application forms are available at the Counseling Resource Center or at Barstow College.

Four-year colleges and universities may impose transfer limitations on credit earned through non-traditional means. Therefore, students who plan to transfer should consult with the transfer school to determine the transferability of credit earned by examination.

Tech Prep

Tech Prep is a program offered in conjunction with local high schools, the San Bernardino County Office of Education and the College. Beginning in high school, the program leads to certificates, A. S. degrees, jobs, and transfer to four- year institutions. Victor Valley College is a member of the Inland Desert Tech Prep Consortium and, in cooperation with local high schools, offers opportunities for students enrolled in articulated high school Regional Occupational Program or Tech Prep classes. Each Tech Prep course (2+2) has an articulated curriculum between the high school and the College. This intersegmental process assists students in their transition from high school to the community college. For more information, contact your high school guidance counselor , the Department Chair of the appropriate career discipline at the College, or the Vocational Education Office at Victor Valley College, (760) 245-4271, extension 2614.

Petitions Committee

The Petitions Committee, which meets as needed when classes are in session, considers special requests from students for exemptions from certain academic, student, and college policies. Typical requests include:

- To enroll in more than 18 units of course work during an academic semester, or more than 8 units during a summer intersession.
- To drop classes after the "grade responsibility date" with a "W" grade.
- To grant a waiver or substitution for certificate or graduation course requirements.
- To grant academic renewal (see Page 27).

Students who petition must have good reasons plus supporting documents and materials to support their request. The burden of proof is on the student who petitions for special consideration.

The Petitions Committee has the authority to approve, deny, modify, or take no action on particular petitions which are submitted for its consideration.

For any petition to be considered at a Friday meeting, it must be completed and submitted to the Office of Admissions and Records by 5 p.m. Thursday, the day before the meeting.

Student Conduct

Each student has the right to pursue his or her education free of any undue infringement on his or her lawful rights.

Victor Valley College follows a "zero" tolerance philosophy when it comes to any behavior or incident that disrupts the learning environment. Student conduct issues are handled in a fair, just manner. In general, student misconduct shall constitute good cause for discipline, including but not limited to the removal, suspension or explusion of a student. Due process for students conduct issues are fully explained in the Student Notification section of each class schedule. All students are expected to read and review this important information. In addition, copies are also available in the Dean of Student Services Office at no charge upon request.

Victor Valley College: Proscribed Student Conduct

Generally, Victor Valley College jurisdiction and discipline shall be limited to conduct which occurs on Victor Valley College premises or at official VVC off-campus activities except as noted.

Definition: The following samples of student conduct shall constitute good cause for discipline, including but not limited to the removal, suspension or expulsion of a student.

A. Student Conduct Code - Rules and Regulations
Any student found to have committed the following misconduct is subject to disciplinary sanctions. The Discipline Procedures are described in the following section of this publication and they are available in the Office of the Dean of Student Services and the Office of the Director of Campus Police and Public Safety. Normally, any student found guilty of misconduct or more specifically, violence or threats of violence against another will be suspended from the College for a least one semester.

1a. Open contempt for any of the following safety rules and regulations.

1b. Acts of dishonesty, including, but not limited to the following:
   a. Cheating, plagiarism, or other forms of academic dishonesty.
   b. Furnishing false information to any Victor Valley College official, faculty member or office.
   c. Forgery, alteration, or misuse of any Victor Valley College document, record or instrument of identification.
   d. Tampering with the election of any Victor Valley College recognized student organization.

2. Disruption or obstruction of teaching, research, administration, disciplinary proceedings, other Victor Valley activities, including its public-service functions on or off campus, or other authorized non-Victor Valley College activities, when the act occurs on Victor Valley College premises.

3. Physical abuse, verbal abuse, threats, intimidation, harassment, coercion, and/or other conduct which threatens or endangers the health and safety of any person.

4. Committing sexual harassing or discriminatory behavior based on race, sex, religion, age, national origin, disability, or any other status protected by law.

5. Attempted or actual theft of and/or damage to property of Victor Valley College or property of a member of the Victor Valley College community or other personal or public property.

6. Any fighting or challenging a fight, which threatens or endangers the health or safety of any person is immediate grounds for dismissal or removal from campus.

7. Hazing, defined as an act which endangers the mental or physical health or safety of a student or which destroys or removes public or private property for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in a group or organization.

8. Failure to comply with directions of Victor Valley College officials (including faculty) or law enforcement officers acting in performance of their duties and/or failure to identify oneself to one of these persons when requested to do so.

9. Unauthorized possession, duplication or use of keys to any Victor Valley College premises or unauthorized entry to or use of Victor Valley College premises.

10. Violation of published Victor Valley College policies, rules or regulations, including those concerning student organization and the use of college facilities or the time, place and manner of public expression or distribution of materials.

11. Violation of federal, state or local law on Victor Valley College premises or at Victor Valley College sponsored or supervised activities.

12. Use, possession or distribution of narcotic or other controlled substances or poison classified as such by Schedule D (Section 4160 of the Business and Professions Code) except as expressly permitted by law.

13. Use, possession or distribution of alcoholic beverages except as expressly permitted by law and Victor Valley College regulations, or public intoxication.

14. Illegal or unauthorized possession of firearms, explosives, other weapons or dangerous chemicals on Victor Valley College premises.

15. Possession of any article, not usually designated as a weapon, when used to threaten bodily harm on Victor Valley College premises.

16. Participation in a campus demonstration which disrupts the normal operations of Victor Valley College and infringes on the rights of other members of the Victor Valley College community; leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area, intentional obstruction which unreasonably interferes with freedom of movement, either pedestrian or vehicular on campus. Obstruction of the free flow of pedestrian or vehicular traffic on Victor Valley College premises or at Victor Valley College sponsored or supervised functions.

17. Conduct which is disorderly, lewd, indecent, or obscene or expression which interferes with the college's primary educational responsibility or which adversely affects a student's standing as a member of the college community, breach of peace, or aiding, abetting, or procuring another person to breach the peace on Victor Valley College premises or at functions sponsored by, or participated in by, Victor Valley College.

18. Theft or other abuse of phones, electronic devices or computer time, including but not limited to:
    a. Unauthorized entry into a file to use, read, or change the contents, or for any other purpose.
    b. Unauthorized transfer of a file (not educational related).
    c. Unauthorized use of another individual's identification and password.
    d. Unauthorized use of electronic devices in the classroom including but not limited to head phones, cellular phones and pagers.
    e. Use of computing facilities to interfere with the work of another student, faculty member or Victor Valley College staff official.
    f. Use of computing facilities to download or view material deemed to be lewd, indecent and/or obscene matter that is not educational related.
    g. Use of computing facilities to send obscene or abusive threatening messages.
    h. Use of computing facilities to interfere with the normal operation of Victor Valley College computing systems.
19. Abuse of the Student Conduct System, including but not limited to:
    a. Failure to obey the summons of the Student Conduct Hearing Committee or Victor Valley College official.
    b. Falsification, distortion, or misrepresentation of information.
    c. Disruption or interference with the orderly conduct of a judicial proceeding or Student Conduct Hearing Committee.
    d. Institution of a judicial proceeding or Student Conduct Hearing Committee knowingly without cause.
    e. Attempting to discourage an individual's proper participation in, or use of, the Victor Valley College judicial system.
    f. Attempting to influence the impartiality of a member of a judicial body prior to, and/or during the course of, the Judicial proceeding or Student Conduct Hearing Committee.
    g. Failure to comply with the sanctions imposed under the Student Code of Conduct and/or Education Code.
    h. Influencing or attempting to influence another person to commit an abuse of the judicial system.

B. Other Campus Regulations

1. Only officially registered students are allowed to attend classes. Minors or other students who are not registered or do not have permission to be in the class may not remain in the classroom.
2. Students are not permitted to eat or drink in classrooms.
3. Smoking is prohibited in all college buildings or within 20 feet of building entrance.
4. Card playing on Victor Valley College premises is prohibited except in a designated game or recreation area.
5. Animals, dogs (except trained service animals such as guide dogs for the visually impaired or previously authorized animals) and other pets are not allowed on Victor Valley College premises.
6. Printed materials that are not class-related to be distributed must be approved for distribution by the Office of Student Activities.
7. Students must be fully attired, including shoes, while in the classroom or on Victor Valley College premises.
8. Library books and materials must be returned promptly.
9. Use of audio equipment on Victor Valley College premises is restricted to personal headphones or preapproved authorized activities.
10. Children must be under the supervision of parents at all times.

C. Violation of Law and Victor Valley College Discipline

1. If a student is charged only with an off-campus violation of federal, state, or local laws, but not with any other violation of this Code, disciplinary action may be taken and sanctions imposed for grave misconduct which demonstrated flagrant disregard for the Victor Valley College community. In such cases, no sanctions may be imposed unless the student has been found guilty in a court of law or has declined to contest such charges, although not actually admitting guilt (e.g., "no contest" or "nolo contendere").
2. Victor Valley College disciplinary proceedings may be instituted against a student charged with violation of a law which is also a violation of this Student Code; for example, if both violations result from the same factual situation, without regard to the pendency of civil litigation in court or criminal arrest and prosecution. Proceedings under this Student Code may be carried out prior to, simultaneously with, or following civil or criminal proceedings off-campus.
3. When a student is charged by federal, state or local authorities with a violation of law, Victor Valley College will not request or agree to special consideration for that individual because of his or her status as a student. Victor Valley College will cooperate fully with law enforcement and other agencies in the enforcement of criminal law on campus and in the conditions imposed by criminal courts for the rehabilitation of student violators.

D. Cheating and Plagiarism Defined

The term "cheating" includes, but is not limited to:

- Use of any unauthorized assistance in taking quizzes, tests, or examinations;
- Dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments or - Acquisition, without permission, of tests or other academic material belonging to a mem ber of the VVC faculty or staff.
- Cheating, plagiarism (including plagiarism in a stu dent publication), or engaging in other academic dishonesty as defined below.

The term "plagiarism" includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledgmed use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

Probation and Dismissal Policies

VVC has specific policies governing probation, dismissal and readmission which apply to all enrolled students.

■ Probation

Academic. Students who have attempted 12 or more units at VVC are placed on **academic probation** if the cumulative G.P.A. (grade point average) falls below 2.0. Students are removed from academic probation at the end of the next semester in attendance at VVC (excluding summer session), if their cumulative G.P.A. is 2.0 or higher.

Progress. Students who have attempted twelve or more units at VVC are placed on **progress probation** when half or more of the units attempted consist of "W," "I" and/or "NC". Students are removed from progress probation at the end of the next semester in attendance at VVC (excluding summer session) when fewer than half of their cumulative units attempted consist of "W," "I" and/or "NC".

VVC notifies students of their probation status by a letter encouraging students to see a counselor and/or to seek other support services.

■ Dismissal

Academic. Students who have been on academic probation are **Subject to Academic Dismissal** at the end of the second consecutive semester of enrollment (excluding summer session) when their cumulative G.P.A. continues to be below 2.0.

VVC notifies students of their **subject to academic dismissal** status by a letter requiring the student to see a counselor during the current term.

Students subject to academic dismissal at the end of the spring semester may be prohibited from registering for fall semester unless they filed a **Petition for Readmission.** As part of this petition process students ***must*** meet with a counselor and may be limited to a certain number of units, may be required to take specific classes, and/or may be required to seek specific support services.

Continued enrollment at VVC will depend on whether students have followed the conditions specified in the Petition for Readmission and whether they have made progress academically. Students are responsible for satisfactorily completing the terms of their **Petition for Readmission,** and failure to do so may result in immediate dismissal from VVC. **In general, academic dismissal shall be for a minimum of one semester and a petition for Readmission must be filed to recover enrollment privileges.**

Progress. Students who have been on progress probation are **subject to progress dismissal** at the end of the second consecutive semester of enrollment (excluding summer session when half or more of the units attempted consist of "W," "I" and/or "NC".

VVC notifies students of their **subject to progress dismissal** status by a letter strongly urging the student to see a counselor.

Students who do not meet progress standards for three consecutive semesters of enrollment may be prohibited from registering for the following semester unless they file a **Petition for Readmission.** As part of this petition process students ***must*** meet with a counselor and may be limited to a certain number of units, may be required to take specific classes, and/or may be required to seek specific support services.

Continued enrollment at VVC will depend on whether students have followed the conditions specified in the Petition for Readmission and whether they have made progress in reducing the percentage of "W," "I" and/or "NC". Students are responsible for satisfactorily completing the terms of their **Petition for Readmission,** and failure to do so may result in immediate dismissal from VVC. **In general, progress dismissal shall be for a minimum of one semester and a petition for Readmission must be filed to recover enrollment privileges.**

Student Grievances

A student may use the following process to file a grievance if they feel they have been unjustly treated academically or administratively:

Step 1: Initial Level - Meet and confer with the person with whom you have a grievance.

Step 2: Chairperson/Dean Level - If the grievance is not resolved in Step 1, you may then take the matter, in writing, to the appropriate department or program Chairperson/Director/Coordinator or Dean, if there is no chairperson, within 10 working days. The Chairperson or Dean will render a decision in writing within 10 working days.

Step 3: Dean/Vice President Level - If the problem is not resolved at Step 2, you may appeal in writing to the appropriate Dean (if the Dean was not involved in Step 2) or Vice President within 10 working days. The Dean/Vice President will render a decision in writing within 10 working days.

Step 4: Final Review - If the problem is not resolved at Step 3, you may appeal in writing to the appropriate Vice President (if the Vice President was not involved in Step 3) or the President within 10 working days, but only on the following grounds:

a. There was a significant lack of due process that deprived you of a fair and equitable result

b. The Step 3 decision is clearly unreasonable or arbitrary

c. There is significant newly discovered information which, in spite of reasonable diligence on your part, could not have been produced earlier

The decision will be rendered in writing within 10 working days and will be final.

Advanced Placement (AP) credit is currently awarded at Victor Valley College as follows:

Advanced Placement Test	Minimum Scores	Equivalent Victor Valley College Course	Semester Units	Department Approval
Biology	3, 4 or 5	Biology 100	4	11/1/93
Chemistry	3, 4 or 5	Chemistry 100	5	10/5/92
	4 or 5	Chemistry 201 and 202	10	
Computer Science				
Computer Science AB	3, 4 or 5	Elective credit only	3	
Economics				
Micro	3, 4 or 5	Economics 102	3	9/11/92
Macro	3, 4 or 5	Economics 101	3	
English				
Language & Composition	3, 4 or 5	English 101	4	5/22/92
Composition & Literature	3, 4 or 5	English 102	3	
French				
Language	3, 4 or 5	French 101and 102	10	9/17/92
Literature	3, 4 or 5	Prerequisite for French 103 or 104	-	
Government and Politics				
American	4 or 5	Political Science 102	3	9/8/92
Comparative	4 or 5	Political Science 112	3	
History				
American	3, 4 or 5	History 117 and 118	6	9/28/92
European	3, 4 or 5	Before 1500: Elective credit only	3	
		After 1500: History 104	3	
Mathematics				
Calculus AB	3, 4 or 5	Mathematics 226	5	2/8/92
Calculus BC*	3, 4 or 5	Partial credit for 227	4	
Music				
Listening & Literature	3, 4 or 5	Music 100	3	9/10/92
Theory	3, 4 or 5	Elective credit only	3	
Psychology	3, 4 or 5	Psychology 101	3	10/19/92
Spanish				
Language	3, 4 or 5	Spanish 101 and 102	10	9/17/92
Literature	3, 4 or 5	Prerequisite for Spanish 103 or 104		

*Calculus BC: Partial credit of 4 units for Math 227 may be granted; do not enroll in Math 228 before you complete Math 227. You can receive credit for the missing 1 unit of 227 by taking it through Independent Study -Math Department 2-8-92.

NOTE: Consult with transfer institutions to determine how AP credits are applied.

VI.
FINANCING YOUR EDUCATION

"If you think education is expensive, try ignorance..."

-Derek Bok

INVESTING IN YOUR EDUCATION

A college education is one of the best investments in the future that many students will make. Some experts say a college degree has the potential of adding hundreds of thousands of dollars to an individual's lifetime earnings.

In a world that is daily becoming more complex, more and more occupations require specialized training and educational and learning skills.

As with any investment, there are financial considerations in earning a college degree.

VVC offers a number of financial aid programs, scholarships, special awards, and work-study programs to help students finance their educations.

Eligibility and Qualifications

Each financial aid program has specific requirements. However, the programs described in this section of the catalog share the following eligibility criteria:

- U.S. citizenship or permanent resident visa.
- Enrollment in courses in accordance with the VVC Educational Program Plan and regular attendance in VVC classes.
- Satisfactory academic progress (financial aid satisfactory progress policy will be given to you during the initial financial aid counseling).
- Financial need as determined by the information listed in the Free Application For Federal Student Aid (FAFSA).
- Ability to Benefit (refer to page 38).

Financial Aid

The Financial Aid Office assists students who are seeking financial help to pay for the costs of attending Victor Valley College. Money may be provided to cover the cost of tuition and/or enrollment fees, books, transportation, and partial living expenses. Students may be working and still qualify to receive financial aid. The Renewal Application and the FAFSA are the preferred forms used in applying for financial aid. Applying on time is critical. The completed form should be mailed to the processor after January 1.

Students may apply for Pell Grants at anytime after January 1 for the upcoming year.

The processor will forward the Student Aid Report (SAR) to the student. Additional documentation may be required to support the data submitted on the application. It is important that all requested documentation be returned as soon as possible.

Financial Aid awards are not made until a student's file is complete.

The Financial Aid Office is available to help with the process. Students may find applying for aid difficult and confusing. Those needing help or advice are encouraged to contact the Financial Aid Office (760) 245-4271, extension 2277.

TYPES OF FINANCIAL AID

Board of Governors Fee Waiver

This waiver is available to cover the additional cost due to fees initiated on July 1, 1985. Students must demonstrate financial need and complete the FAFSA or Board of Governors Fee Waiver Application. The maximum waiver covers the community college enrollment fee.

State Grants

California, through the Student Aid Commission, offers state-funded grants for graduate and undergraduate students. There are grants for both academic and vocational higher education programs, including the new entitlement program.

Cal Grant A, B or C applicants must have financial need, be legal California residents attending an eligible school in California, be in a program of study leading directly to an undergraduate degree or certificate, and not possess a baccalaureate degree prior to receiving an award. A student can accept only one Cal Grant. The Financial Aid Office has complete Cal Grant eligibility and application information.

Cal Grant A helps students with tuition/fee costs. The minimum eligible course length is two academic years and is held in a reserve status at the community college level.

Cal Grant B provides a living allowance for very low-income students. More than half of all new Cal Grant B recipients begin at a public community college. The Cal Grant B award for freshmen is usually limited to the nontuition costs of attending college such as living expenses, books and supplies, transportation, etc. When renewed by sophomores and above, a Cal Grant B may also cover all or part of tuition/fee costs. The minimum eligible course length is 12 months.

Cal Grant C helps vocational schools students with tuition and training costs. Recipients must be enrolled in a vocational program at a community or independent college or a vocational school course of study from 4 to 24 months in length.

Graduate Fellowships are open to those who demonstrate their intent to become college or university faculty members; assist with tuition and fees at independent and public colleges, and universities.

How to Apply for State Grants

To apply for a Cal Grant or Graduate Fellowship, complete the Free Application for Federal Student Aid (FAFSA) and file it between January 1 and the Cal Grant March 2 deadline. Also complete any additional application requirements such as providing the Student Aid Commission with a verified grade point average or test scores. NOTE: Second chance; community college students have until September 2 ,2005 to apply for a Cal Grant B award.

The Financial Aid Office has complete application materials and information. Remember that for special aid programs some schools may have other application requirements and filing dates. Start your research early to be sure you have complete details and can meet the various deadlines.

Cal Grant B Entitlement Awards

Award Description:

- Provide grant funds for access costs for low-income students in an amount not to exceed $1551. This grant is to be used for living expenses and expenses related to transportation, supplies and books. Beginning with the second year of Cal Grant B benefits, Cal Grant B also helps pay for tuition/fees for California residents attending qualifying institutions offering undergraduate academic programs of not less than one academic year.

- Awards are guaranteed for those who meet the program eligibility criteria.

General Cal Grant Eligibility Requirements

All Cal Grant applicants must:

- Be California residents
- Be U.S. citizens or eligible non-citizens
- Meet U.S. Selective Service requirements
- Attend an eligible California qualifying postsecondary institution
- Be enrolled at least half-time
- Maintain satisfactory academic progress as defined at school of attendance
- Have family income and assets below the established ceilings
- **Not** be in default on any student loan
- **Not** owe any federal or state grant refund

Who can apply:

To be eligible for a 2004-2005 Cal Grant B Entitlement Award, applicants must:

- Meet the Cal Grant Program general eligibility requirements
- Graduate from high school between July 1, 2003 and June 30, 2004
- Achieve a minimum high school grade point average of at least 2.0 on a 4.0 scale
- Submit a completed application and verified grade point average (GPA) by March 2, 2005
- Enroll in an undergraduate academic program of not less than one academic year at a qualifying postsecondary institution

Federal Pell Grant

This is the primary grant for eligible undergraduate students; it ranges from $400.00 for the academic award year.

Federal Supplemental Educational Opportunity Grant (FSEOG)

The FSEOG is available to assist undergraduate students. The standard award is $500 per year based upon the availability of funds. This grant is awarded to students who have a great financial need.

Direct Loans

The William D. Ford Federal Direct Loan Program ("Direct Loans" for short) allows students to borrow money directly from the federal government without having to find a bank (you receive your funds through the college). Please ask for the application in the Financial Aid Office.

Return of Title IV Funds

There is a federal law about repaying money back if you leave school. If you receive any TITLE IV Funds (Pell Grant, FSEOG, Direct Loans) you may owe money back to the Federal Programs.

Here is how it works: According to the day that you withdraw, the Financial Aid Office will calculate the part of the grant that you have earned and what you may owe. NOTE: If you withdraw after you have earned 60% of your Title IV Funds, you will not owe any repayment.

Federal Work Study Program (FWS)

FWS is a form of federally funded financial aid which provides paid work experience as part of the financial aid package. If you have been awarded FWS, please check with a college representative in the Student Employment Office located in the Career Development Center, relative to the availability of FWS job positions.

Bureau of Indian Affairs

The Bureau of Indian Affairs (BIA) funds a financial aid program for full-time students of American Indian descent who demonstrate financial need.

To be eligible for a BIA Grant, students must be at least 25 percent American Indian, Eskimo or Aleut by blood, as recognized by a tribal group.

Phone numbers to obtain applications are available from the Financial Aid Office.

Veterans' Benefits

Normally, for active duty veterans, active service of at least 181 days or more and an honorable discharge is required to receive Chapter 30, 32 or 34 GI Bill; you must also be within 10 years of your discharge date. You can call 1-888-442-4551 to verify your GI Bill eligibility with the Veterans Administration. Additionally, dependents of veterans who are 100% disabled (or deceased) from service-related causes may be eligible for Chapter 35 GI Bill benefits. Guard/Reserve six-year enlistees may also have access to the GI Bill through Chapter 1606.

Dependents of veterans with 0% or greater disability from the VA may be eligible for a tuition and fee waiter. Parents should contact the County VA office at (760) 843-2790 for further information and an application.

Active duty military may be eligible for tuition assistance from their respective branch of service. Contact your base/post education office for further information.

With few exceptions, the entire curriculum (including online classes) of the college is approved for GI Bill use. See the Veterans representative for further information.

GI Bill students assume full liability for overpayment of benefits. To avoid this, students must report to the Veterans representative when they drop classes.

As required by the VA, GI Bill students must have a current education plan on file by the end of the second semester of attendance. The education plan must show the student's declared program and must have all previous college work and military experience properly evaluated. The Veterans office can provide the necessary forms to order military transcripts.

GI Bill students must stop by the office at the start of each semester to inform the office of their enrollment and verify that their classes meet requirements.

Veterans may not receive benefits for repeating a course that was previously completed successfully. Grades necessary for "successful completion" are defined by a "D" for non-transfer or non-prerequisite classes and by a "C" for transfer or prerequisite classes as outlined in this catalog.

To receive veteran's benefits, students must maintain a 2.0 or higher cumulative GPA (Grade Point Average) and show satisfactory progress in their program. For V.A. purposes, your GI Bill benefits will be terminated under either the following two conditions:

- You fail to maintain an overall (cumulative) 2.0 GPA for three consecutive semesters.
- You fail to complete more than half your attempted units for three consecutive semesters. (For example, if you've attempted 20 units but have withdrawn from 11.)

If you fall into either of the preceding categories, the V.A. will not allow further certifications for GI Bill until you again meet the standards. You must also meet with, and be approved for re-certification by your counselor.

For further questions, and assistance with applications, please contact Doug Foxworthy at (760) 245-4271, extension 2256 or at dfoxworthy@vvc.edu.

Veterans office hours: (summer hours may be different, check the class schedule). Monday, 8:30a.m.-5:00p.m.; Tuesday-Thursday, 8:30a.m.-7:00p.m.; Friday, 8:30a.m.-3:00p.m.

Scholarships and Awards

A number of private/sponsored scholarships and awards are given each year to students at Victor Valley College.
The amounts of these awards vary, depending on the individual or organization giving the awards. Interested students are encouraged to request application forms for these scholarships and awards from the Financial Aid Office.

Eligibility requirements for these awards vary and may be based on academic excellence, financial need, or other criteria of the organizations which issue the scholarships.

Ability to Benefit

Effective July 1, 1991, federal regulations require students seeking Title IV student financial aid for the first time to have either a high school diploma or its equivalent, or demonstrate the **Ability to Benefit** from a college education. Non-high school graduates will be provided the opportunity to demonstrate the ability to benefit by scoring at or above designated scores on the Victor Valley College assessment tests. These scores are in compliance with the United States Department of Education guidelines. **Non-high school graduates scoring below the designated scores will be ineligible to receive Title IV student financial aid.** This includes, among others, the Federal Pell Grant, the FSEOG Federal Work Study, and the Direct Loans. Such students will be counseled into the appropriate remedial courses to improve their educational level. When the student is able to achieve satisfactory scores, he or she will meet the educational criteria for financial aid eligibility. **This policy does not pertain to eligibility for the Board of Governors fee waiver or the Extended Opportunity Programs and Services (EOPS).**

Part-Time Jobs For Students

In addition to financial aid programs, many Victor Valley College students find part-time jobs off campus with private employers.

A listing of jobs available to students may be found in the Student Employment Office, located in the Career Development Center.

TUITION AND FEES

Students are encouraged to plan their educational budget to cover basic college costs while attending Victor Valley College: tuition, fees, books, and supplies.

Enrollment Fee

Enrollment fees for California residents are set by the California Legislature for all of the state community colleges. The present fee is $26 per semester unit with no maximum. For example, a student enrolling in 15 units would pay $390 in enrollment fees.

Enrollment Fee Refunds

Excess enrollment fees resulting from program changes in regular classes may be refunded during the first two weeks of a semester. Refunds for short-term classes are prorated.

A student who is a member of an active or reserve United States military service and who has withdrawn from classes due to military orders may file a petition with the district requesting refund of enrollment fees. The district will refund the entire enrollment fee unless academic credit has been awarded.

A $10 processing fee for withdrawals is charged no more than once each term.

Student Center fee is refunded for students withdrawing from all their classes prior to the first day of the semester.

Parking fees are refunded in full after complete withdrawal from classes prior to the first day of the semester. After classes begin, no refund will be given.

A full refund will be given for ASB fees upon complete withdrawal and surrender of the ASB card prior to the first day of the semester.

Parking permits and ASB cards must be surrendered upon withdrawal from school in order in order to receive refunds.

Refunds are typically processed beginning after the deadline for refunds has passed. Students should allow 3-4 weeks after that deadline before refund checks are mailed.

Non-Resident Tuition

Students who are not considered residents of California pay all regular in-state fees plus a non-resident tuition fee, based on the number of units taken. The current non-resident tuition fee is $157 per unit. Non-resident tuition fee for Nevada residents is $49 per unit.

Non-Resident Tuition Refunds

Non-resident tuition assessments will be refunded if the student is subsequently determined to be a California resident. Residency claims must be supported by documents that prove residency during the time that non-resident tuition was paid.

Non-resident tuition assessments may be refunded in part upon a student's withdrawal from school, or refunded in part when programs are reduced.

Non-resident tuition will be refunded in full prior to the beginning of classes. During the first week of classes, 75% will be refunded. During the second week, 50% of non-resident tuition will be refunded. During the third week, a 25% refund is allowed. No refunds of non-resident tuition are allowed after the third week of classes.

Full refunds of non-resident tuition are made prior to the beginning of class for winter/summer sessions. Refunds of 50% of non-resident tuition will be made until 20% of class sessions are held. No refunds are made after 20% of classes are held.

Students seeking a refund of non-resident tuition and fees must apply for a refund in writing.

Parking Fees/ASB Fees

Parking fee combined with ASB is $40. Parking fee without ASB is $40.

Student Center Fee

During the 1992 Spring Semester, the student body approved a Student Center Fee of $1 per semester unit, up to a maximum of $10 per year.

Student Representation Fee

Each student is charged $1.00 per semester (Fall/Spring). The student representation fee is authorized by Education Code Section 76060.5 and implementing Title 5 regulations commencing with Section 54801. Section 54805 requires a notice to be provided to students stating that: "the money collected pursuant to this article shall be expended to provide support for students or representatives who may be stating their positions and view points before city, county, and district government, and before offices and agencies of the state and federal government."

Textbooks and Small Supplies

Students enrolled in classes will need textbooks and other supplies for most of the courses in which they are enrolled.

The cost of textbooks purchased by the student at the beginning of each course and supplies varies from course to course.

For financial planning purposes, a full-time student at Victor Valley College should plan on spending approximately $500 per year for books and small supplies such as notebooks, pens, and pencils.

Textbooks and supplies may be purchased at the college bookstore, located in the Student Activties Center (SAC).

Textbooks may be bought back by the college bookstore at the end of the semester. A book "buy-back" is held at the bookstore during Finals Week, the last week of each regular semester. Book buy-backs are conducted on the last two days of the 6-week summer sessions.

The bookstore's refund policy is attached to every receipt at the time of purchase. Students should read the policy carefully to determine what may be refunded.

Fee Review

Fees are subject to review without notice due to budgetary considerations in the state legislature, the California Board of Governors, and/or the Victor Valley Community College District Board of Trustees.

Refund Policies

In the event of a withdrawal from classes, a portion of the fees paid may be refunded to the student.

Refunds for withdrawals from class(es) must be requested by the student using a **Request For Refund** form. A $10 processing fee will be charged for student-initiated refunds. Students not requesting refunds may apply their credit balance toward their student fees in the next semester, provided the withdrawal deadlines are met.

Refunds resulting from class cancellations or class rescheduling by the District will also be refunded automatically.

VII.
MOVING ON

"Education is the best provision for old age."

-Aristotle
384-322 B.C.

REQUIREMENTS FOR CERTIFICATES, DEGREES AND UNIVERSITY TRANSFER

There are three academic objectives you can complete at Victor Valley College. These include:

- Occupational certificates
- Graduation with an associate's degree
- Preparation for transfer to a university where you can complete a bachelor's degree

Many students elect to complete two or even all three of these goals *at the same time*--which you can do with careful planning.

This chapter of the catalog will tell you how to accomplish these three objectives.

Here's where to find this information:

Course Numbering System

Each college course has a number assigned to it, which tells you whether it applies to the associate's degree, transfers to a university, or doesn't apply to a degree.

Courses numbered 1 through 49 are not degree-applicable (NDA), and are not intended to transfer to universities.

Courses numbered 50 through 99 apply to the associate's degree, but typically do not transfer to universities.

Courses numbered 100 through 299 apply to the associate's degree and transfer to most universities.

At the end of each course description, courses that transfer to campuses of the University of California or the California State University Systems are indicated by "UC" and/or "CSU."

A. OCCUPATIONAL CERTIFICATES

We'll start by telling you how to complete a certificate. This is the simplest goal, because there's not a lot to figure out. Just turn to Section VIII "Programs of Study," which starts on page 73.

In this section, you'll find listed the most common areas of study that people are interested in--whether VVC offers a program in that field or not. If we don't have a particular program, at least you'll probably find information about some of the institutions that do.

Under each area of study, if VVC offers an occupational certificate program in that area, you'll find listed all the classes you would be required to complete in order to earn that certificate. Assuming your academic skills are at college level, you wouldn't need any other general education (math, science, English, humanities, etc.) courses--only the specific courses listed there.

As a practical matter, if your academic skills--English, reading and math--need some refreshing, you should take courses in those areas before or along with your other courses. Refer to your Assessment printout for an idea of which courses to choose. Employers of all kinds and at all levels want employees who can think well, speak well, write well, and get along with others. You can take courses at VVC in all those areas.

What many people do is complete a certificate program, then sometime later (yes, even years later!) come back to school and use those courses again as the major and often the electives for an associate's degree--or even as preparation for transfer. Other people work on certificates and the requirements for a degree at the same time.

It's all up to you. Just remember: once a completed course is on your transcript, we can often use it to satisfy requirements for a second or even a third objective.

B. REQUIREMENTS FOR GRADUATION WITH AN ASSOCIATE'S DEGREE

Graduation generally requires the equivalent of two years of full-time study which leads to an Associate in Science (A.S.) or Associate in Arts (A.A.) degree. For a quick listing of degrees, see the inside front cover of this catalog. For more extensive coverage of programs available, turn to Section VIII, "Programs of Study."

The college's graduation requirements allow students to earn an associate's degree and, with careful planning, simultaneously meet requirements either for an occupational certificate or for some or all of the requirements for transfer to a four-year college or university, or both.

Students who wish to transfer should check with their intended institution regarding which courses meet that school's requirements.

The following discussion corresponds to the form on the next two pages.

General Requirements (Section A)

An associate's degree requires 60 degree-applicable units, distributed among the major, general education, and electives. On the following page is a summary of the requirements for the associate's degree at VVC. This listing is also available as a worksheet at the front desk in Counseling (ask for the "green sheet").

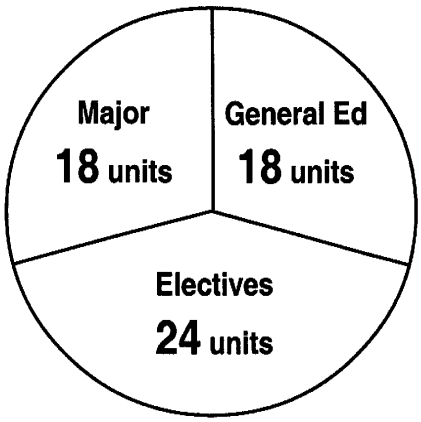
Note: If you're planning to transfer to a university, the key idea to keep in mind when you plan your courses for your VVC major and general education requirements is that you want to fit your transfer university's course requirements into VVC's graduation requirements; that is, use *their* required courses to meet *VVC's* degree requirements. (You'll find more on that in the **Transfer** part of this chapter.)

Courses for Your Major (Section B)

At least 18 units are required for a VVC major. Select your courses from those listed under your major in the grey-shaded section of this catalog, Section VIII, "Programs of Study," which starts on page 75.

General Education (GE) Requirements (Section C)

At least 18 units are required for your GE. The list on the following page shows each course that can be used to satisfy GE requirements. It's a good idea to make your selections with an eye to your transfer requirements (see lists of transfer requirements later in this chapter).



Distribution of units for the AA/AS Degree

Physical Education (PE) (Section D)

At least one activity or non-activity (lecture) course in Physical Education is required of all students who wish to earn the associate's degree. Courses range from .5 unit to 3 units in value. A maximum of 4 units of PE activity courses will count toward the degree. Courses listed under Athletics do not satisfy the requirement. Having completed military basic training usually fulfills this requirement; a copy of the student's form DD214 or other documentation must be on file with the Office of Admissions.

Electives (Section E)

The remaining units for the degree--approximately 24--are called electives, because after satisfying your major and GE requirements, you may *elect* to take whatever you like, with some restrictions and recommendations. For example, you might want to complete courses towards an occupational certificate or towards possible transfer objectives.

Application for Graduation

Graduation ceremonies are held once a year in May. The graduating student is responsible for filing with the Office of Admissions an application for graduation, which includes submitting all transcripts from other colleges and all other documents verifying completion of any requirements. Late applicants will be evaluated for the following graduation date. Deadlines are as follows:

Graduation	Deadline to Apply
December 2005	Monday, October 3, 2005
June 2006	Monday, March 6, 2006
August 2006	Monday, June 5, 2006

A. General Requirements for Graduation.....minimum 60 units

__ 1. Complete 60 degree-applicable units, not to include more than 4 units of physical education activity.
__ 2. Earn a cumulative GPA of 2.0 or higher in all degree-applicable units including all units from other colleges attended if applicable.
__ 3. Complete at least 12 units at Victor Valley College. Active duty military need to complete a minimum of 12 units at VVC.
__ 4. Complete an application for graduation before deadline. Deadlines are published each year in the VVC catalog. Applications for degrees and certificates are available in Admissions and Records and in Counseling.
__ 5. Have official transcripts of other colleges attended and/or Advanced Placement scores sent to VVC. Students are responsible for furnishing official transcripts. Final evaluation and acceptance of transfer courses taken at other accredited colleges will be determined by the Registrar's Office at the time the student's graduation application is evaluated. VVC does not accept credits from all institutions of higher education.
__ 6. Minimum proficiencies in English, Reading and Math are met by completing the general education reqiements in Categories IV and V.

B. Major.....minimum 18 units

FOR A COMPLETE LIST OF ASSOCIATE DEGREE PROGRAMS AND NON-VOCATIONAL MAJOR COURSE SELECTIONS SEE REVERSE SIDE.

MAJOR COURSE	C	IP	N	MAJOR COURSE	C	IP	N	MAJOR COURSE	C	IP	N

C. General Education.....minimum 18 units

DIRECTIONS: Circle courses selected and tally units in appropriate columns. A course may not fulfill more than one area.

	C	IP	N
Category I: Natural Science.....minimum 3 units **ALDH** 102*; **ANTH** 101, 101L; **ASTR** 101; **BIOL** 100, 104, 107, 109, 114, 118, 120, 121, 126, 127, 128, 129, 201, 202, 203, 211, 212, 221, 231, 232, 250A; **CHEM** 100, H100, 114, 120, 201, 202, 206, H206, 207, 255, 281, 282; **ELCT** 110, 131; **GEOG** 101, 101L, 103; **GEOL** 101, 102, 103, 109, 110, 112; **OCEA** 101; **PE** 102*; **PSCI** 101, 114, 115; **PHYS** 100, 201, 202, 203, H204, 221, 222			
Category II: Social and Behavioral Science.....minimum 3 units **AJ** 101; **ALDH** 125; **ANTH** 101, 102, 103, 105; **BADM** 100, 117, 118; **CHDV** 106, 146; **ECON** 101, 102; **GEOG** 101, 102; **GUID** 105*; **HIST** 103, 104, 115, 117, H117, 118, H118, 119, 120, 121, 124, 125, 127, 130, 131, 135, 150, 153, 155, 157; **POLS** 101, 102, H102, 103, 110, 111, 112, 120; **PSYC** 101, H101, 102, 103, 105*, 110, H110, 111, 116, 121, 125, 130, 133, 204, 213; **RLST** 101, 105, 106, 110, 115; **SOC** 101, 102, 103, 107; **SPCH** 105			
Category III: Humanities.....minimum 3 units **ART** 101, 102, 104, 105, 106, 107, 108, 109, 112, 113, 114, 120, 122, 125, 133, 141, 142, 150; **ENGL** 102, H102, 109, 116*, 162, 210, 211, 220, 225, 230, 231, 232, 233, 235, 240, 241, 245, 246, 247; **FREN** 101, 102, 103, 104, 125; **GERM** 101, 102 103, 104, 125; **HIST** 103, 104, 115, 117, H117, 118, H118, 119, 120, 121, 124, 125, 127, 130, 131, 135, 150, 153, 155, 157; **LATN** 101, 102; **MUSC** 100, 101, 102, 103, 112, 113, 115, 116, 117, 118, 131, 202, 204; **PHIL** 101, 108, 120, 121; **PE** 103; **RLST** 101, 105, 106, 110, 113, 115; **SPAN** 101, 101A, 101B, 102, 103, 104, 125; **SPCH** 105, 122, 123, 124, 125; **TA** 101, 102, 104, 107, 110, 116*			
Category IV: Language & Rationality.....minimum 6 units *Courses in Category IV must be completed with grade of "C" or better.* **English Composition.....minimum 3 units** **ENGL** 50, 101, H101, 102, H102			
Communication & Analytical Thinking.....minimum 3 units **BADM** 142, 144; **BET** 143, 145; **CIS** 101, 201; **ELCT** 57, 58, 59, 60; **ENGL** 50, 101, H101, 102, H102, 104, H104, 149; **MATH** 50, 60, 90, 104, 105, H105, 120, 132, 226, H226, 227, H227, 228, H228, 231, 270; **PHIL** 109, 207; **RLST** 207; **SPCH** 106, 107, 108, 109			
Category V: Mathematics.....minimum 3 units *Course in Category V must be completed with grade of "C" or better.* **MATH** 50, 60, 90, 104, 105, H105, 119, 120, H120, 132, 226, H226, 227, H227, 228, H228, 231, 270			
*ALDH 102 and PE 102 are the same course. *GUID 105 and PSYC 105 are the same course. *ENGL 116 and TA 116 are the same course. **Total units**			

D. Physical Education.....minimum one course

Any activity or non-activity (lecture) physical education course of 1 unit or more will fulfill this requirement. Completion of military basic training fulfills this requirement. Courses listed under Athletics may not be used to fulfill Physical Education requirement.

E. Electives...Write down courses taken to complete the graduation requirement of 60 units which have not been used to fulfill any other requirement above:

ELECTIVE COURSE	C	IP	N	ELECTIVE COURSE	C	IP	N	ELECTIVE COURSE	C	IP	N

C = COMPLETED units IP = IN PROGRESS units N = NEEDED units

Liberal Arts Major, A. A. .....minimum 18 units

Choose at least one course from each of the three categories below:

Science and/or Math .....minimum 3 units

ALDH 102*; **ANTH** 101, 101L; **ASTR** 101; **BIOL** 70, 100, 104, 107, 109, 113, 114, 118, 120, 121, 126, 127, 128, 129, 149, 201, 202, 203, 211, 212, 215A, 215B, 215C, 221, 231, 232, 250A; **CHEM** 100, H100, 114, 120, 128, 129, 201, 202, 206, H206, 207, 255, 281, 282; **GEOG** 101, 101L, 103; **GEOL** 101, 102, 103, 109, 110, 112, 128, 129; **MATH** 90, 104, 105, H105, 119, 120, 128, 129, 132, 226, H226, 227, H227, 228, H228, 231, 270; **OCEA** 101; **PE** 102*; **PSCI** 101, 114, 115, 128; **PHYS** 100, 128, 129, 201, 202, 203, H204, 221, 222

Social Science .....minimum 3 units

AJ 101; **ALDH** 125; **ANTH** 101, 102, 103, 105, 128, 129; **CHDV** 106, 146; **ECON** 101, 102, 118, 128, 129; **GEOG** 101, 102; **GUID** 105*; **HIST** 50, 55, 60, 103, 104, 115, 117, H117, 118, H118, 119, 120, 121, 124, 125, 127, 128, 129, 130, 131, 135, 145, 150, 153, 155, 157; **POLS** 50, 101, 102, H102, 103, 110, 111, 112, 120, 128, 129; **PSYC** 101, H101, 102, 103, 105*, 108, 110, H110, 111, 116, 121, 125, 128, 129, 130, 133, 139, 204, 213; **RLST** 101, 105, 106, 110, 115; **SOC** 101, 102, 103, 107, 128, 129; **SPCH** 105

Humanities.....minimum 3 units

ART 101, 102, 104, 105, 106, 107, 108, 109, 112, 113, 114, 115, 120, 121, 122, 123, 124, 125, 126, 128, 129, 130, 131, 132, 133, 141, 142, 150, 151; **ENGL** 102, H102, 109, 116*, 162, 210, 211, 220, 225, 230, 231, 232, 233, 235, 240, 241, 245, 246, 247; **FREN** 101, 102, 103, 104, 125, 128, 129; **GERM** 101, 102, 103, 104, 125; **HIST** 50, 55, 60, 103, 104, 115, 117, H117, 118, H118, 119, 120, 121, 124, 125, 127, 130, 131, 135, 150, 153, 155, 157; **LATN** 101, 102; **MUSC** 100, 101, 102, 103, 104, 105, 108, 110, 111, 112, 113, 115, 116,117, 118, 120A-J, 122, 123, 124, 125, 126, 128, 129, 130, 131, 132, 134,135, 136, 137, 139, 140, 141, 143, 144, 145, 146, 147, 202, 203, 204, 205, 210, 211; **PHIL** 101, 108, 109, 120, 121, 128, 129, 207; **PHOT** 100, 101, 102, 103, 104, 105, 128, 129; **PE** 103; **PEDA** 101, 150, 160, 161, 166, 167, 170, 171, 174, 175,176, 177, 266, 267, 270,271, 274, 275, 276, 277; **RLST** 101, 105, 106, 110, 115, 128, 129; **SPAN** 101, 101A, 101B, 102, 103, 104, 110, 125, 128, 129; **SPCH** 105, 122, 123, 124, 125; **TA** 101, 102, 104, 106, 107, 109, 110, 111, 113, 115, 116*, 117, 120, 125ABC, 128, 129, 160, 161,166, 167, 170, 171, 174, 175, 266, 267, 270, 271, 274, 275

A maximum of 4 units of PEDA/TA activity courses will count towards degree.

Fine Arts Major, A. A. .....minimum 18 units

ANTH 151; **ART** 101, 102, 104, 105, 106, 107, 108, 109, 112, 113, 114, 115, 120, 121, 122, 123, 124, 125, 126, 128, 129, 130, 131, 132, 133, 141, 142, 150, 151; **ENGL** 116*; **MUSC** 100, 101, 102, 103, 104, 105, 108, 110, 111, 112, 113, 115, 116, 117, 118, 120A-J, 122, 123, 124, 125, 126, 128, 129, 130, 131, 132, 134, 135, 136, 137, 139,140, 141, 143, 144, 145, 146, 147, 202, 203, 204, 205, 210, 211; **PHOT** 52, 53, 54, 100, 101, 102, 103, 104, 105, 128, 129;**PE** 103, 128; **PEDA** 101, 150, 151, 152, 153, 160, 161, 162, 163, 164, 165, 166, 167, 169, 170, 171, 174, 175, 176, 177, 266, 267,270, 271, 274, 275, 276, 277; **TA** 101, 102, 104, 106, 107, 109, 110, 111, 113, 115, 116*, 117, 120, 125ABC, 128, 129, 160, 161,166, 167, 170, 171, 174, 175, 266, 267, 270, 271, 274, 275

A maximum of 4 units of PEDA/TA activity courses will count towards degree.

Math/Science Major, A. S. .....minimum 18 units

ALDH 102*; **ANTH** 101, 101L; **ASTR** 101; **BIOL** 70, 100, 104, 107, 109, 113, 114, 118, 120, 121, 126, 127, 128, 129, 149, 201, 202, 203, 211, 212, 215A, 215B, 215C, 221, 231, 232; **CHEM** 55, 100, H100, 114, 120, 128, 129, 201, 202, 206, H206, 207, 255, 281, 282; **ELCT** 57, 58, 59, 60; **GEOG** 101, 101L, 103; **GEOL** 101, 102, 103, 109, 110, 112, 128, 129; **MATH** 90, 104, 105, H105, 120, H120, 128, 129, 132, 226, H226, 227, H227, 228, H228, 231, 270; **OCEA** 101; **PE** 102*; **PSCI** 101, 114, 115, 128; **PHYS** 100, 128, 129, 201, 202, 203, H204, 221, 222

Requirements for Earning More Than One Associate Degree: Refer to catalog or schedule an appointment with a counselor.

Victor Valley College Degrees

Administration of Justice, A.S.
Agriculture and Natural Resources, A.S.*
Automotive Technology, A.S.
Business, A.S.
Business Administration, A.S.
Business Education Technologies, A.S.
Business Real Estate and Escrow, A.S.
Child Development, A.S.
Computer Information Systems, A.S.
Computer Integrated Design and Graphics, A.S.
Construction and Manufacturing Technology, A.S.
Electronics and Computer Technology, A.S.
Electronics Engineering Technology, A.S.
Fine Arts, A.A.
Fire Technology, A.S.
Liberal Arts, A.A.
Math/Science, A.S.
Medical Assistant, A.S.
Nursing, A.S.
Paramedic, A.S.
Respiratory Therapy, A.S.
Restaurant Management, A.S.
Welding, A.S.

For a current list of certificates see the gray pages of the Victor Valley College Catalog.

Second Degree or Additional Degrees

To earn more than one Associate Degree, the following apply:

1. Students must complete an additional 18 units from an approved departmental major for each additional degree

2. No course used to fulfill MAJOR requirements for the first degree may be used to fulfill MAJOR requirements for a subsequent degree.

3. The general education requirements used for the first degree remain as the general education requirements for subsequent degrees.

Continuous Enrollment

Students who enroll in at least one transcripted class in at least one semester (excluding the summer session and winter session) within the academic year are considered continuously enrolled.

Students who do not meet the continuous enrollment condition and re-enter the college will fall under the catalog requirements for the year they re-entered the college. Consequences of not being continuously enrolled include:

Loss of priority registration
Changes in requirements for a certificate
Changes in requirements for an Associate Degree
Changes in requirements for transfer to a university
Certificates or programs no longer available due to discontinuance

Catalog requirements apply for a maximum of six years prior to graduation.

Catalog Under Which You Graduate

The rules and requirements found in the VVC Catalog form the student's "contract" with the college. Students may select which set of requirements will apply from those in effect at any of three points in their college careers: those in place at the time of entrance or re-entrance; those applicable during a time of continuous attendance; or those in effect at the time of graduation. Enrollment in at least one regularly transcripted course per year, including summers, is considered continuous attendance. An absence of not more than two years due to an approved educational leave, or to attendance at another college or university, is not considered an interruption in attendance. Maximum "catalog life" is six years prior to graduation.

C. TRANSFERRING TO A FOUR-YEAR COLLEGE OR UNIVERSITY

VVC transfers about 250 students annually to campuses of the University of California, California State University, and various private schools. These students traditionally do as well as or better than students who began as freshmen at the four-year college.

Students can generally complete the first two years' worth of a four-year bachelor's degree at a community college, like VVC, while simultaneously earning an associate's degree. To determine the exact courses you need to take here in order to satisfy requirements at your intended transfer institution, find your major in the grey-shaded section of this catalog, Section VIII, "Programs of Study," starting on page 73. If your school (or major) is not listed, you will need to make further inquiries. Consult with a counselor, with VVC's Transfer Center and, of course, with the transfer institution itself. If you have access to the World Wide Web, you can find out more specific information about transferring at: www.assist.org.

There are four major types of universities or four-year schools to which community college students transfer: The University of California (UC) system, the California State University (CSU) system, private institutions, and out-of-state institutions.

■ University of California (UC)

The UC system is world-renowned for its excellence in teaching and, in particular, research into what makes the world the way it is. Each of the nine campuses statewide (eight undergraduate) has its own distinct academic and social character, but all offer intellectually challenging bachelor's, master's and doctoral programs in an academically rigorous environment. The next four pages (51-54) have more information on the UC system.

■ California State University (CSU)

The twenty-two campuses of the CSU system offer a wide variety of innovative and exciting bachelor's and graduate-level programs whose goal is to prepare citizens for effective participation in society. As with the UC system, each campus has its own "flavor," but all offer well-regarded programs, many of which are internationally prominent. See pages 55-58.

■ Private and Out-of-State Institutions

Private schools such as the University of Southern California (USC) or Pepperdine, and out-of-state institutions, such as University of Nevada at Las Vegas (UNLV) or the University of Arizona, are some of those to which VVC students transfer. Such institutions are geographically and figuratively "all over the map," and students are advised to consult them directly. Visit the Transfer Center for more information.

■ Nontraditional Degree Programs

A number of nontraditional bachelors and graduate-level programs are offered by accredited institutions. These programs are designed for people whose distance, work or family situations prevent them from regular attendance in more traditional programs. See pages 64-71 for more information.

The University of California

Nine Campuses

All UC campuses use the quarter system except Berkeley which uses the semester system.

TRANSFERRING TO THE UNIVERSITY OF CALIFORNIA (UC)

Regular Transfer (as a Junior)

If you wish to transfer as a junior to any of the campuses of the University of California, you should generally plan to compete at least 60 *transferable* units with at least a 2.4 minimum GPA at VVC, including those required in your major and those needed for completion of the general education requirements.

For most students, this means you should follow the listings under the Intersegmental General Education Transfer Curriculum (IGETC), shown on the following pages.

There are some exceptions to the general recommendation to follow IGETC, most commonly for those students wishing to transfer to high-unit programs in engineering or in the sciences. For these majors, it is usually recommended that students follow the general education pattern of the specific campus they plan to attend. See the section on IGETC on this page.

Guaranteed Transfer to UCR

UC Riverside and VVC have established a Transfer Admissions Guarantee (TAG) program to encourage students to transfer to UCR and to facilitate that process. A UCR representative visits the Transfer Center regularly to answer questions about programs, majors, and alternative admissions programs. Stop by the Transfer Center to schedule an appointment.

The Intersegmental General Education Transfer Curriculum (IGETC)

IGETC (usually pronounced "eye-GET-see") was developed in concert with the UC and CSU systems to create a set of general education courses that would be accepted at both institutions ("segments," hence "*inter*segmental"), so that students who have not made a final decision about where to transfer would be able to have one list of courses to follow, instead of two.

Completing the IGETC therefore fulfills the lower division general education requirements for both the UC and the CSU systems without the need, after transfer, to complete any further lower division GE coursework.

It should be noted that completing the IGETC is neither a requirement for admission to UC or CSU, nor is it the only way to fulfill lower-division GE requirements.

■ Certification

When you have completed all the courses to be used for the IGETC, VVC can, at your request, *certify* to the UC or CSU campus you plan to attend that you have fulfilled all the lower division GE requirements. As a general rule, community colleges can certify the IGETC for transfer students who have also completed transfer units at a CSU, UC, or independent college, provided that the student has completed most of the transfer units at one or more California community colleges. Students who have been registered at a UC campus during a regular term (not summer or Extension) and wish to return to that campus are *not* eligible to use IGETC.

■ Limitations

All courses used for IGETC must be passed with a minimum grade of C (a C-minus is not acceptable). *Credit* or *pass* grades are acceptable, providing they are equivalent to the grade of C.

■ Restrictions

IGETC is not used for transfer to UC Berkeley's Haas School of Business or UC San Diego's Revelle or Roosevelt Colleges. It is also not recommended for transfer into majors requiring extensive lower-division preparation, such as engineering, biology, chemistry, and others. Students in these programs should follow the general education pattern of the specific campus they plan to attend. Visit the Transfer Center or see a transfer counselor for thorough planning.

Transferring with Fewer Than 60 Units

If you wish to transfer to the UC system with fewer than 60 transferable units, you will need to do the following:

■ **Take the ACT or SAT.** You will need to take either the American College Test (ACT) or the Scholastic Aptitude Test (SAT) to determine whether you will be admitted as a freshman or as a sophomore. These tests are given several times per year; schedules and application forms are available in the Transfer Center.

■ **Clear the "a-g" Subject Requirements.** If you did not complete the a-g requirements in high school, you can take equivalent courses at VVC to clear any deficiencies. Visit the Transfer Center or see a counselor for more information.

Visit www.ucop.edu/pathways for online undergraduate admissions information and applications.

IGETC

VICTOR VALLEY COLLEGE
INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC)
ADVISING AND CERTIFICATION FORM

OBJECTIVE: Completion of all the requirements in the Intersegmental General Education Transfer Curriculum (IGETC) will permit a student to transfer from a community college to a campus in either the California State University or the University of California system without the need, after transfer, to take additional lower-division general education courses to satisfy campus general education requirements.

EXCEPTIONS: All campuses will accept IGETC except UC Berkeley's Haas School of Business and UC San Diego's Roosevelt and Revelle Colleges. Also, IGETC is not recommended for science, engineering, or other high unit majors at most campuses. These students should follow the general education pattern of the specific university which they plan to attend.

CERTIFICATION: All areas of the IGETC must be certified prior to transfer. No partial certification is given for IGETC. Students are responsible for requesting IGETC certification by completing the REQUEST FOR CERTIFICATION OF TRANSFER GENERAL EDUCATION REQUIREMENTS form from Counseling. Each course must be completed with a grade of "C" or better.

DIRECTIONS: Circle courses taken at Victor Valley College, write in courses taken at other colleges with name of college, or write name of Advanced Placement exam passed with a minimum score of 3 which articulates with one of VVC's courses in that area.

Legend: C = Units Completed IP = Units In Progress N = Units Needed

AREA 1 - ENGLISH COMMUNICATION **CSU:** Three courses required, one from Group1A, one from Group 1B, and one from Group 1C. UC: Two courses required, one from Group 1A and one from Group1B.	C	IP	N
Group 1A: ENGLISH COMPOSITION (Choose one course, 3 semester units minimum.) ENGL 101 Course from Other College:_____ Advanced Placement_____ (Test Name and Score)			
Group 1B: CRITICAL THINKING AND ENGLISH COMPOSITION (Choose one course, 3 semester units minimum.) ENGL 104; PHIL 207 (If taken Fall 1992 or thereafter) Course(s) from Other College:_____ *NOTE: If PHIL 207 or H207 was taken prior to Fall 1992, then ENGL 102 must also be completed.*			
Group 1C: ORAL COMMUNICATION - CSU requirement only (Choose one course, 3 semester units minimum.) SPCH 106, 108, 109 Course from Other College:_____			
AREA 2 - MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING Choose one course, 3 semester units minimum.			
MATH 105, H105, 119, 120, H120, 132, 226, 227, 228, 231, 270 Course from Other College:_____ Advanced Placement_____ (Test Name and Score)			
AREA 3 - ARTS AND HUMANITIES Choose three courses to include one from **Group 3A: Arts** and one from **Group 3B: Humanities**, 9 semester units minimum.			
Group 3A: ARTS ART 101, 102, 104, 105, 106, 107, 108; MUSC 100, 101, 102, 103, 115, 116, 117, 118, 202, 204; Dance: PE103; TA 101, 102, 116 (Cross listed as ENGL 116) Course(s) from Other College:_____ Advanced Placement_____ (Test Name and Score)			
Group 3B: HUMANITIES ENGL 102, 116, 162, 220, 225, 230, 231, 232, 233, 240, 241, 245, 246, 247; HIST 103, 104, 117, 118, 119, 120, 121, 124, 125, 130, 131, 150, 153, 155, 157; PHIL 101, 108, 120, 121; RLST 101, 105,106, 110,115; French 103, 104; GERM 103, 104; SPAN 103, 104; SPCH 105, 124, 125 Course(s) from Other College:_____ Advanced Placement_____ (Test Name and Score)			

Legend: C = Units Completed IP = Units In Progress N = Units Needed

AREA 4 - SOCIAL AND BEHAVIORAL SCIENCES Choose three courses from at least two different disciplines, 9 semester units minimum.	C	IP	N
ANTH 101, 102, 103, 105; CHDV 106; ECON 101, 102; GEOG 102; HIST 103, 104, 115, 117, 118, 119, 120, 121, 124, 125, 130, 131, 150, 153, 155, 157; POLS 101, 102, 110, 112; PSYC 101, 110, 111, 116, 121, 204, 213 RLST 115; SOC 101, 102, 107; SPCH 105 Course(s) from Other College:_____ Advanced Placement_____ (Test Name and Score) *NOTE: No credit for PSYC 110 if taken after 111, 116 or 130. PSYC 110, 111, 116 and 130 combined: maximum credit, three courses.*			

AREA 5 - PHYSICAL AND BIOLOGICAL SCIENCES Choose at least two courses, one from **5A: Physical Sciences** and one from **5B: Biological Sciences**, 7 semester units minimum. At least one must include a laboratory indicated by (L),			
Group 5A: PHYSICAL SCIENCES ASTR 101; CHEM 100(L), H100(L), 114, 201(L), 202(L), 206(L), 207(L); GEOG 101, 101L(L); GEOL 101(L), 102(L), 103, 110(L); OCEA 101; PSCI 101; PHYS 100(L), 201(L), 202(L), 203(L), H204(L), 221(L), 222(L) Course from Other College:_____ Advanced Placement_____ (Test Name and Score) *NOTE: No credit for CHEM 100 or H100 if taken after CHEM 201. No credit for PSCI 101 if taken after college course in astronomy, chemistry, geology, meteorology, oceanography or physics. No credit for PHYS 100 if taken after PHYS 201 or 221. PHYS 221, 222 and 201, 202, 203, H204 combined: maximum credit, one series.*			
Group 5B: BIOLOGICAL SCIENCES BIOL 100(L), 104(L), 118, 201(L), 202(L), 203(L), 211(L), 212(L), 221(L), 231(L), 232(L); ANTH 101, 101L(L) Course From Other College:_____ Advanced Placement_____ (Test Name and Score) *NOTE: BIOL 211 and 212 combined: maximum credit, one course. No credit for BIOL 100 if taken after BIOL 201, 202 or 203. BIOL 231 and 232 combined: maximum credit, one course.*			

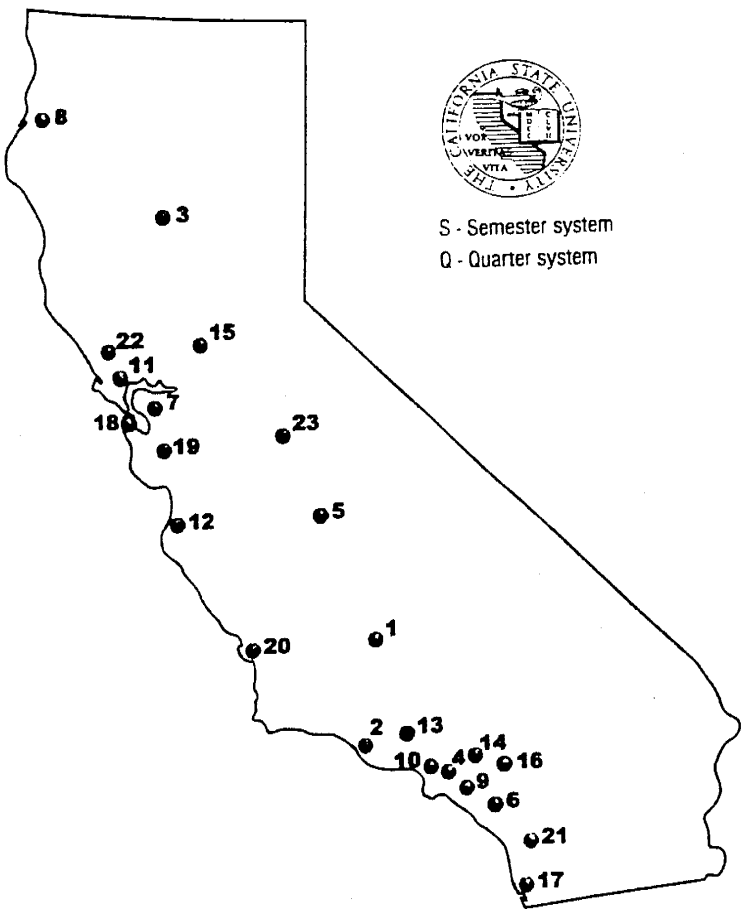
LANGUAGE OTHER THAN ENGLISH - UC Requirement for IGETC Certification May be fulfilled one of the following ways:			
____ Complete 2 years of the same foreign language in high school with a grade of "C" or better. It is the student's responsibility to bring an official high school transcript to VVC Admissions and Records office for certification of this area. **OR** ____ Complete one of the following Victor Valley College foreign language courses to meet the proficiency level: FREN 102;GERM 102; SPAN 102; SPCH 123 *NOTE: Completing a higher level foreign language course than those listed above obviously meets this requirement.* Course from other college:_____ **OR** ____ Earn a score of 3 or higher on Foreign Language Advanced Placement test or a score of 550 or higher on College Board Achievement Test in Foreign Language. Test Name_____ Score_____ Date taken_____			

U.S. HISTORY, CONSTITUTION AND AMERICAN IDEALS **CSU Graduation Requirement Only** Not part of certification of IGETC, but highly recommended to be completed prior to transfer. One course from Group 1 and one course from Group 2, 6 semester units minimum.			
Group 1: POLS 102 **Group 2:** HIST 117 OR 118 NOTE: Courses used to meet this requirement WILL NOT count toward fulfilling requirements in Areas 3 or 4 of IGETC for CSU			

A course may not be used to fulfill more than one requirement even though it may be listed in more than one area Credit will be given for either the honor or non-honors version of a course, not both. For example, 4 units for Math 105 or Math H105, not both.

NOTE: Meet with a counselor for up dated transfer information or visit www.assist.org

The California State University



S - Semester system
Q - Quarter system

1 **California State University, Bakersfield** • Q
9001 Stockdale Highway, Bakersfield, CA 93311-1099
(661) 664-3036 • www.csubak.edu

2 **California State University, Channel Islands** • S
One University Drive, Camarillo, CA 93012
(805) 437-8400 • www.csuci.edu
Channel Islands will admit only upper division undergraduate transfer and postbaccalaureate credential students for 2002-03. A limited number of CSU Northridge courses will be available on the CSUCI campus.

3 **California State University, Chico** • S
400 W. First Street, Chico, CA 95929-0150
(530) 898-6321 • www.csuchico.edu

4 **California State University, Dominguez Hills** • S
1000 East Victoria Street, Carson, CA 90747
(310) 243-3696 • www.csudh.edu

5 **California State University, Fresno** • S
5150 North Maple Avenue, Fresno, CA 93740-0057
(559) 278-2261 • www.csufresno.edu

6 **California State University, Fullerton** • S
800 N. State College Blvd., Fullerton, CA 92834-9480
(714) 278-2300 • www.fullerton.edu

7 **California State University, Hayward** • Q
25800 Carlos Bee Blvd., Hayward, CA 94542-3035
(510) 885-2624 • www.csuhayward.edu

8 **Humboldt State University** • S
1 Harpst Street, Arcata, CA 95521-4957
(707) 826-4402 • www.humboldt.edu

9 **California State University, Long Beach** • S
1250 Bellflower Blvd., Long Beach, CA 90840-0106
(562) 985-5471 • www.csulb.edu

10 **California State University, Los Angeles** • Q
5151 State University Drive, Los Angeles, CA 90032-8530
(323) 343-3901 • www.calstatela.edu

11 **California Maritime Academy** • S
200 Maritime Academy Drive, Vallejo, CA 94590
(800) 561-1945 • www.csum.edu

12 **California State University, Monterey Bay** • S
100 Campus Center Drive, Seaside, CA 93955-8001
(831) 582-3518 • www.monterey.edu

13 **California State University, Northridge** • S
18111 Nordhoff Street, Northridge, CA 91330-8207
(818) 677-3700 • www.csun.edu

14 **California State Polytechnic University, Pomona** • Q
3801 West Temple Avenue, Pomona, CA 91768-4003
(909) 869-2000 • www.csupomona.edu

15 **California State University, Sacramento** • S
6000 J Street, Sacramento, CA 95819-6112
(916) 278-6470 • www.csus.edu

16 **California State University, San Bernardino** • Q
5500 University Parkway, San Bernardino, CA 92407-2397
(909) 880-5200 • www.csusb.edu

17 **San Diego State University** • S
5500 Campanile Drive, San Diego, CA 92182-8225
(619) 594-0884 • www.sdsu.edu

18 **San Francisco State University** • S
1600 Holloway Avenue, San Francisco, CA 94132-4002
(415) 338-1113 • www.sfsu.edu

19 **San Jose State University** • S
One Washington Square, San Jose, CA 95192-0009
(408) 283-7500 • www.sjsu.edu

20 **California Polytechnic State University, San Luis Obispo** • Q
San Luis Obispo, CA 93407
(805) 756-2311 • www.calpoly.edu

21 **California State University, San Marcos** • S
Office of Admissions, 333 S. Twin Oaks Valley Road
San Marcos, CA 92096-0001
(760) 750-4848 • www.csusm.edu

22 **Sonoma State University** • S
1801 East Cotati Avenue, Rohnert Park, CA 94928
(707) 664-2778 • www.sonoma.edu

23 **California State University, Stanislaus** • 4-1-4
801 West Monte Vista Avenue, Turlock, CA 95382
(209) 667-3151 • www.csustan.edu

TRANSFERRING TO CALIFORNIA STATE UNIVERSITY (CSU)

Regular Transfer (as a Junior)

Students who have completed at least 60 *transferable* units with a grade point average of 2.0 or higher are eligible to apply for transfer to the CSU system. It is usually to your advantage to complete 60 units, rather than 56, since doing so means you can transfer in as a junior, rather than as a sophomore, which often confers privileges such as earlier registration.

CSU General Education Breadth Certification

Students planning to graduate from any of the 23 campuses of CSU should complete the CSU GE Breadth requirements prior to transfer if possible. This list, found on the following pages, covers five general subject areas, A-E. On completion, and at the student's request, VVC can *certify* to the transfer campus that the student has fulfilled all lower-division GE requirements. It is to your advantage to complete the entire pattern before transfer; however, VVC can provide partial certifications, leaving you to fulfill uncompleted areas at the transfer campus--according to their requirements, which may differ considerably.

Intersegmental General Education Transfer Curriculum (IGETC)

For students who have not yet decided whether to transfer to a CSU or to a UC campus, an alternative to the CSU's GE Breadth pattern for satisfying general education requirements is the IGETC, which will satisfy both CSU and UC. However, not all aspects of following it are necessarily better for all students. For more information, please see pages 53-54.

Guaranteed Transfer To Cal State San Bernardino (CSUSB)

Many students elect to transfer to California State University at San Bernardino, which offers a special "guaranteed admission" contract to our students. This agreement guarantees that, on completion of specified coursework at VVC, the student will be admitted to CSUSB with full junior status. To develop such a contract, visit the Transfer Center to make an appointment with the CSUSB representative, who comes to VVC on a regular basis.

Transferring with Fewer Than 60 Units

If you wish to transfer to the CSU system with fewer than 60 transferable units, you will need to do the following:

- **Take the ACT or SAT.** You will need to take either the American College Test (ACT) or the Scholastic Aptitude Test (SAT) to determine whether you will be admitted as a freshman or as a sophomore. These tests are given several times per year; schedules and application forms are available in the Transfer Center.
- **Clear any missing college preparatory requirements.** If you did not complete the appropriate subject requirements in high school, you can take equivalent courses at VVC (or in adult school or in high school summer sessions; minimum grade of C required) to clear any deficiencies, or earn acceptable scores on specified examinations. Visit the Transfer Center or see a counselor for more information.

Planning to Transfer?

www.assist.org

assist

Your official source for California articulation and student transfer information. Now available to everyone on the World Wide Web at: www.assist.org.

Visit www.csumentor.edu to find outreach, financial aid, and admissions information.

CSU

Victor Valley College
California State University (CSU)
General Education Requirements for Transfer Certification

Certification:

1. If possible, complete the following lower-division general education requirements in Areas A-E before transferring to any of the 23 campuses of the CSU system.
2. Victor Valley College awards a student full or partial certification by subject area for completion of the following lower-division general education transfer requirements.
3. In accordance with Executive Order 595, students admitted to any CSU with full or partial certification will not be held to any additional lower-division general education requirements in the areas certified. Students may be held to other lower division graduation requirements.
4. Full Certification - All areas completed with a minimum of 39 units.
5. Partial Subject Area Certification - Areas A,B,C, and D completed with a minimum of 9 units in each area and Area E completed with a minimum of 3 units.
6. If not fully certified, students may be held responsible for completing the general education pattern of the specific college to which they transfer.

Important Points:

1. A minimum of 9 additional semester units of upper-division general education must be completed at the CSU campus.
2. If a student completes a course in a year it did not appear on the CSU General Education course list, it CANNOT satisfy that general education requirements.
3. A minimum of 56 units of transferable courses must be completed to be a transfer student. A minimum of 60 transferable units must be completed to be a junior.
4. Credit is awarded for either an honors or non-honors course, not both. For example, students may receive credit for Math H5 or Math 5, not both.
5. A single course may not fulfill more than one general education requirement even though it may be listed in more than one area.

DIRECTIONS: Circle courses and tally units in appropriate columns.

Legend: C = Units Completed IP = Units In Progress N = Units Needed

AREA A. COMMUNICATION IN THE ENGLISH LANGUAGE AND CRITICAL THINKING.....minimum 9 units *Choose one course from each of the three areas below. Each course from Area A must be completed with a "C" grade or better.*	**C**	**IP**	**N**
A1 COMMUNICATION SPCH 106, 107, 108, 109 Course from other college:			
A2 WRITTEN COMMUNICATION ENGL 101 Course from other college:			
A3 CRITICAL THINKING ENGL 104, PHIL 109, 207 Course from other college:			
AREA B. PHYSICAL UNIVERSE AND ITS LIFE FORMS.....minimum 9 units *Choose at least one course from B1 Physical Sciences, one course from B2 Life Sciences, and one course from B4 Mathematics. At least one science course must include a laboratory to fulfill B3.*			
B1 PHYSICAL SCIENCE *Courses which include a laboratory:* CHEM 100, H100, 201, 202, 206, 207 GEOG 101+101L GEOL 101, 102, 110 PHYS 100, 201, 202, 203, H204, 221, 222 *Courses which do NOT include a laboratory:* ASTR 101; CHEM 114 GEOG 101; GEOL 103 OCEA 101 PSCI 101, 114, 115 Course from other college:			
B2 LIFE SCIENCE *Courses which include a laboratory:* ANTH 101 + 101L BIOL 100, 104, 107, 109, 201, 202, 203, 211, 212, 221, 231, 232 *Courses which do NOT include a laboratory:* ANTH 101 BIOL 114, 118 Course from other college:			
B3 LABORATORY ACTIVITY *Any science course in Area B1 or B2 which includes a lab fulfills this requirement.* *Check appropriate box.*			
B4 MATHEMATICS *The course used to fulfill B4 must be completed with a "C" grade or better.* MATH 104, 105, H105, 119, 120, H120, 132, 226, 227, 228, 231, 270 Course from other college:			

AREA C. ARTS, LITERATURE, PHILOSOPHY AND FOREIGN LANGUAGE.....minimum 9 units *Choose at least one course from the ARTS and one course from the HUMANITIES.*	C	IP	N
C1 ARTS ART 101, 102, 104, 105, 106, 107, 108, 109, 112, 113, 114, 120, 122, 125, 150 Dance: PE 103 ENGL 116 MUSC 100, 101, 102, 103, 115, 116, 117, 118, 131, 202, 204 TA 101, 102, 107, 110, 116 Course from other college:			
C2 HUMANITIES ENGL 102, 116*, 162, 210, 211, 220, 225, 230, 231, 232, 233, 235, 240, 241, 245, 246, 247 Foreign Language: FREN 101, 102, 103, 104; GERM 101, 102, 103, 104; LATN 101, 102 SPAN 101, 102, 103, 104 HIST 103, 104, 115, 117, H117, 118, H118, H119, 120, 121, 124, 125, 130, 131, 135, 150, 153, 155, 157 PHIL 101, 108, 120, 121 RLST 101, 105, 106, 110, 115 SPCH 105, 122, 123, 124, 125 TA 104, 116* Course from other college:			
C ONE ADDITIONAL COURSE FROM ANY OF THE ABOVE COURSES LISTED UNDER C1 OR C2 Course used from above: Course from other college:			
AREA D. SOCIAL, POLITICAL AND ECONOMIC INSTITUTIONS AND BEHAVIOR.....minimum 9 units *Choose courses from at least **TWO** different subject areas in AREA D.*			
UNITED STATES HISTORY REQUIREMENT FOR CSU GRADUATION HIST 117, H117, 118, or H118 Course from other college:			
UNITED STATES CONSTITUTION AND AMERICAN IDEALS REQUIREMENT FOR CSU GRADUATION POLS 102 or H102 Course from other college:			
ONE ADDITIONAL COURSE FROM AREA D *Choose one additional course not used above from the following:* AJ 101 ANTH 101, 102, 103, 105 CHDV 106, 146 ECON 101, 102 GEOG 101, 102 HIST 103, 104, 115, 117, H117, 118, H118, 119, 120, 121, 124, 125, 127, 130, 131, 135, 150, 153, 155, 157 POLS 101, 102, H102, 103, 110, 111, 112 PSYC 101, 103, 110, 111, 116, 121, 130, 204, 213 RLST 105, 106, 110, 115 SOC 101, 102, 103, 107 SPCH 105 Courses from other college: *NOTE: Students may use any 9 units from this section to fulfill certification requirements for Area D, yet they are encouraged to complete the above U.S. History, Constitution and American Ideals requirement as part of Area D. All CSU campuses, except Chico State, permit these courses to also satisfy Area D requirement.*			
AREA E. LIFELONG UNDERSTANDING AND SELF-DEVELOPMENT.....minimum 3 units			
ALDH 102*, 125 CHDV 146 GUID 105* PSYC 101, 103, 105*, 110, 121, 125, 130, 133 SOC 103 PE 102*, 104 OR PE 150 (taken as a 2-unit course) + 1 unit from APE 160; PE 160, 161, 162, 163, or 164 Course(s) from other college:			
*Cross-listed courses are the same course listed under different departments. ALDH 102 and PE 102 are the same course. GUID 105 and PSYC 105 are the same course. ENGL 116 and TA 116 are the same course. **TOTAL**			

NOTE: Meet with a counselor for updated transfer information or visit www.assist.org

GENERAL INFORMATION ABOUT TRANSFERRING

Transferring to Independent or Out-of-State Colleges

In addition to state-funded institutions, California boasts many accredited independent colleges and universities. Other states similarly have a huge variety of schools from which to choose. Generally, in-state public school tuition costs are the lowest, but financial aid packages can sometimes absorb much of the difference. For information about private and out-of-state institutions, whose requirements vary considerably, contact the Transfer Center.

Transfer Center

It's a good idea to begin thinking about your transfer goals fairly early in your studies, so that you can be taking a well-planned program of courses towards your objectives. The Transfer Center, located in the Student Services Building, is the place to go to find out about careers, majors, universities and colleges.

■ **Catalogs.** In the Transfer Center you'll find catalogs from colleges and universities all over California which, like this catalog in your hands, show programs of study, course descriptions, photographs of the campus, requirements for degrees, and much more. For out-of state institutions where we don't have an actual catalog, you can usually find information on a CD-ROM. Other continuously updated programs offer you similar opportunities to research your options.

■ **College Representatives.** Representatives from public and private four-year institutions are available to meet with prospective students at the Transfer Center. Representatives are available to discuss majors, admission requirements, applications, etc. Please contact the Transfer Center to schedule an appointment.

Counseling Resources

Counselors are available to all students for help in identifying personal and educational goals, selecting a major, planning courses to meet their objectives, and in dealing confidentially with personal situations that affect their education. We strongly recommend that all students planning to transfer meet with a VVC counselor to ensure that their courses are in line with their goals and requirements.

Career planning classes (look under "Guidance"), an annual career options conference, and other resources such as career testing are available to help students explore their alternatives.

Campus Visits

In addition to reviewing catalogs and other written materials on the campuses you are considering, it is a good idea, if at all possible, to personally visit those institutions.

Check out not only the campus itself, but also the surrounding areas. Do you want to be in an urban setting? Rural? Desert? Coastal? What is the "flavor" of the place and would you feel comfortable there? Visit the libraries, shopping areas, recreation facilities, cafes, bookstores, movie houses and other components that make up a student's life. To explore living situations, visit the university's housing office; also, look at the want ads in the local newspaper.

Transcripts of Records

At the request of a student and in the absence of any outstanding obligation to the college (financial, library, parking, security, bookstore, Counseling Resource Center), official transcripts of record bearing the seal of the college will be forwarded to designated institutions or individuals.

Requests to have official Victor Valley College transcripts sent to other colleges and universities must be made in writing to the Office of Admissions and Records. Completed request forms may be submitted by mail or hand delivered.

Official transcripts issued to students will be provided in a sealed envelope with "OFFICIAL IF SEALED" stamped on the envelope.

A $2.00 charge is made for each transcript after two have been issued. Emergency official copies of transcripts will be processed on a special "rush" handling basis for $5.00 per transcript. For more information, call 245-4271, extension 122.

Applying for Admission

The University of California (UC system) and the California State University (CSU system) are different and distinct branches of public higher education in California and have different requirements for admission.

To apply to the University of California or the California State University systems, students should plan to complete and mail all required forms within the application filing period listed in the application packets, available in the Transfer Center.

Contact other institutions directly for information about applications.

Application Deadlines

To better their chances for acceptance, students should apply to every university for which they want to be considered during the initial or priority application filing period. Students planning to apply to a private university need to research what the initial or priority application filing period is for each specific private university. Certain impacted or highly competitive majors may require earlier deadlines. It is the student's responsibility to research what these deadlines are.

Each individual campus closes application filing periods at different times according to how many students apply. A student who is filing an application late (one month after initial filing period) should contact the Admissions Department of the specific college for which he is applying to inquire if applications are still being accepted.

Application deadlines vary by campus. For information on the University of California system, visit www.ucop.edu. For information on the California State University system, go to www.csumentor.edu. Note that deadlines are usually quite far in advance, for example, October of one year for admission in the Fall term of the following year.

Impacted Majors

At some UC and CSU campuses, more students may seek admission to popular areas of study such as engineering, computer science, and business than can be accommodated. Occasionally, more applications are received during the first month of the filing period than can possibly be accepted at the particular school. When this happens at a UC or CSU campus, certain majors are declared "impacted," and these schools may permit only limited enrollment. Students who apply to impacted majors may also be directed to alternate campuses. Applicants to impacted majors are subject to supplementary admission criteria.

Students who seek to transfer into majors which are impacted should complete all courses designated as required lower division preparation for the major prior to transfer.

At some schools, completion of specific courses with minimum grades is required before transfer as a condition of acceptance into an impacted major.

Maximum Transferable Credit

A maximum of 70 semester or 105 quarter units earned in California community colleges may be applied toward the baccalaureate degree at either a UC or CSU campus.

Notice of Responsibility:

Students should always study the catalog of the school to which they plan to transfer, and are responsible for directly contacting that institution's admissions office for the most current, up-to-date information. No matter how much help you may receive from various sources, it is ultimately ***your*** *responsibility to ensure that all transfer requirements and deadlines are met.*

California State University (CSU) & University of California (UC) Transferable Courses

AJ **101**, 102, **103**, 104, 123, 124, 126, 127, 130, 132, 133, 134, 135, 138, 140, 148, 149
AGNR **100**, 101, **102**, 120, 121, 122, 123,129, **131**, 138, 140, **141**, 148, 149, 150, 151, 152, 153, 154, 160, 161
ALDH **102**, **125**, 138, 139, 148, 149, 141, 142
ANTH **101**, **101L**, **102**, **103**, 104, **105**, **128**, **129**, **151**
ART **101**, **102**, **104**, **105**, **106**, **107**, **108**, **109**, **112**, **113**, **114**, **115**, **120**, **121**, **122**, **123**, **124**, **125**, **126**, **128**, **129**, 130, 131, 132, **133**, 138, **141**, **142**, **150**, **151**
ASTR **101**
ATHL **120**, 120P, **121**, 121P, **122**, 122P, **123**, 123P, **124**, 124P, **125**, 125P, **126**, 126P, **127**, 127P, **128**, 128P, **129**, 129P, **130**, 130P, **131**, **132**, 132P, **133**, 133P, **134**, 134P, **135**, 135P, **140**, 140P
AUTO 138
BIOL **100**, **104**, 107, 109, 113, **114**, **118**, 120, **121**, 126, 127, 128, 129, 138, 148A/B, **149**, **201**, **202**, **203**, **211**, **212**, 215A, 215B, 215C, **221**, **231**, **232**, **250A**
BADM **100**, **101**, **102**, **103**, **104**, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 116, **117**, **118**, 122, 138, 142, 144, 148, 149
BET 101, 103, 103A, 103B, 103C, 103D, 104, 104A, 104B, 104C, 104D, 107, 107A, 107B, 107C, 111A, 111B, 111C, 112, 112A, 112B, 112C, 114A, 114B, 114C, 117A, 117B, 117C, 118, 118A, 118B, 118C, 122, 122A, 122B, 122C, 123L, 123M, 123T, 124, 125, 127, 130, 131, 131A, 131B, 131C, 134, 135, 136, 138, 139A, 139B, 139C, 141A, 141B, 141C, 142, 143, 145, 148, 149
BESC 138, 141, 142, 143, 148, 149
BRE 100, 101, 110, 111, 120, 121, 125, 126, 127, 138, 139, 140, 142, 148, 149
CHEM **100**, **H100**, **201**, **114**, 120, **128**, **129**, 138, 150, **202**, **206**, **H206**, **207**, **H207**, 255, **281**, **282**
CHDV **106**, 110, 111, 115, 127A, 127B, 132, 133, 134, 137, 138, 141, 142, 143, 144, 145, **146**, **H146**, 147, 148, 149, 220, 239, 240
CIS **101**, 102, 103, 105, 106, 107, **108**, 111, 123, 124, 125, 127, 136, 137, 138, 139, 200, **201**, **202**, **203**, 205, 206A, 206B, 210, 211A, 211B, 211C, 240A, 240B, 252, 261, 262, 280, 281, 287A, 287B, 288A, 288B, 290A, 290B
CIDG 101, 103, 104, 108, 110, 120, 138, 148, 153, 160, 210, 230, 231, 250, 251, 260, 261, 280, 281
CT 101, 103, 104, 105, 106, 107, 108, 109, 110, 111A, 111B, 112, 113, 114, 115, 116, 119, 120A, 120B, 121, 122A, 122B, 123, 124, 125, 126, 127, 130, 131, 132, 133, 136, 137, 138, 140, 141, 142, 143, 148, 160ABCD
CTMF 121A, 121B, 122ABCD, 127, 129A, 129 B, 130A, 130B, 131A, 131B, 140, 141
CTMT 120, 121, 122, 123, 129
CTPB 111, 112, 113, 114, 115, 116A, 117, 118, 119
ECON **101**, **102**, 118, **128**, **129**
EDUC 101, 138
ETEC 106, 107
ELCT 110, 131, 132, 133, 134, 138, 148

NOTE: All courses listed here transfer to the CSU system. Courses in **boldface** transfer both to CSU and to the UC system. Be aware that, although a course may transfer, that does not necessarily mean it will satisfy any particular requirement. For the latest information about course requirements for transferring to a CSU or UC campus, visit www.assist.org. Independent (private) colleges make their own determination regarding transferability; contact your intended school for the most up-to-date information.

California State University (CSU) & University of California (UC) Transferable Courses

ENGL **101, H101, 102, H102, 104, H104, 109,** 112, **116, 128, 129,** 138, 149, **162, 210, 211, 220, 225, 230, 231, 232, 233,** 235, **240, 241, 245, 246, 247**
FIRE 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 121, 138, 148, 149
FREN **101, 102, 103, 104,** 125, **128, 129**
GEOG **101, 101L, 102, 103, 128**
GEOL **101, 102, 103,** 109, **110,** 112, **128,129**
GERM **101, 102, 103, 104,** 125, **128, 129**
GUID 100, 105, 107
HIST **103, 104, 115, 117, H117, 118, H118, 119, 120, 121, 124, 125, 127, 128, 129, 130, 131, 135,** 145, **150, 153, 155, 157**
JOUR 106, 108, 108L, 128, 129, 138
LATN 101, 102
MATH 104, **105, H105, 119, 120, H120, 128, 129, 132,** 138, 216, **226, H226, 227, H227, 228, H228, 231, 270**
MUSC **100, 101, 102, 103, 104, 105, 108, 110, 111,** 112, 113, **115, 116, 117, 118, 120A, 120B, 120C, 120D, 120E, 120F, 120G, 120H, 120I, 120J, 122, 123, 124, 125, 126, 128, 129, 130, 131, 132, 134,** 135, **136, 137,** 138, **139, 140, 141, 143,** 144, **145, 146, 147, 202, 203, 204, 205, 210, 211**
NURS 138, 148, 149, 220, 221, 222, 223, 224, 225, 226, 245, 246
OCEA **101**
PHIL **101, 108, 109, 120, 121, 128, 129, 207**
PHOT **100, 101,** 102, 103, 104, 105, 106, **128, 129,** 138
PE **101, 102, 103,** 104, 105, **120, 121, 122, 123, 124, 125, 126, 128, 140, 141, 142, 150, 151, 160, 161, 162, 163, 164, 165, 166, 168, 180, 181, 182, 183, 184, 185, 186, 187, 188, 266**
APE **160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 180, 181, 182, 183, 184, 185, 186**
PEDA **101, 147B, 150, 151, 152, 160, 161, 162, 163, 164, 165, 166, 167, 169, 170, 171, 174, 175,** 176, 177, **266, 267, 270, 271, 274, 275,** 276, 277
PSCI **101, 114,** 115, **128,** 138
PHYS **100, 128, 129,** 138, **201, 202, 203, H204, 221, 222**
POLS **101, 102, H102,** 103, **110,** 111, **112,** 120, **128, 129,** 130, 131, 132, 133, 134, 135, 138
PSYC **101, H101, 102,** 103, 105, 108, 109, **110, H110, 111,** 112, **116, 121,** 125, **128, 129, 130, 133,** 138, 139, 143, **204, 213**
RLST **101, 105, 106, 110, 115, 128, 129,**
RSPT 138, 148, 149, 230, 231, 232, 233, 234, 239, 241, 242, 243
RMGT 120, 138
SOC **101, 102,** 103, **107, 128, 129,** 138
SPAN **101, 101A, 101B, 102, 103, 104,** 110, 125, **128, 129,** 130, 131, 135
SPCH **106,** 107, **108, 109, 115,** 121, **122, 123, 124, 125, 128, 129**
TA **101, 102, 104, 106, 107,** 108, **109, 110, 111,** 113, **115, 116, 117, 120, 125ABC, 128, 129,** 138, **160, 161, 166, 167, 170, 171, 174, 175, 266, 267, 270, 271, 274, 275**

NOTE: All courses listed here transfer to the CSU system. Courses in **boldface** transfer both to CSU and to the UC system. Be aware that, although a course may transfer, that does not necessarily mean it will satisfy any particular requirement. For the latest information about course requirements for transferring to a CSU or UC campus, visit www.assist.org. Independent (private) colleges make their own determination regarding transferability; contact your intended school for the most up-to-date information.

VICTOR VALLEY COLLEGE CAN SYSTEM

California Articulation Numbering System (CAN)

The California Articulation Numbering (CAN) System is a cross-referenced course numbering system which identifies some of the transferable, lower-division, introductory courses taught on California college campuses.

When a California Articulation Number (CAN) appears in a college catalog or class schedule description, it means that this lower division introductory course corresponds to a course taught in other participating public and independent colleges in California. Credit for a course with a specific CAN may be transferred to a participating college or university and used in place of a course with the same CAN at that college. For example, Chemistry 201 is identified as CAN CHEM 2 in the Victor Valley College course description. This signifies that all schools that participate in the CAN system will accept VVC's Chemistry 201 in place of the particular Chemistry course on their campus that has also been identified as CAN CHEM 2. The CAN system makes identification of comparable courses easier and gives students the benefit of articulation with many campuses statewide. A CAN qualified course will be used by a receiving campus for any purposes its own CAN qualified course is used, effective with the CAN catalog edition.

CAN AJ 2	AJ 101
CAN AJ 4	AJ 103
CAN AJ 6	AJ 104
CAN ANTH 2	ANTH 101
CAN ANTH 4	ANTH 102
CAN ANTH 6	ANTH 103
CAN ART 2	ART 101
CAN ART 4	ART 102
CAN ART 8	ART 125
CAN ART 10	ART 120
CAN ART 14	ART 112
CAN ART 16	ART 114
CAN ART 18	PHOT 100
CAN ART 24	ART 122
CAN ART SEQ A	ART 101 + 102
CAN BIOL 2	BIOL 201
CAN BIOL 4	BIOL 202
CAN BIOL 12	BIOL 231
CAN BIOL 14	BIOL 221
CAN BIOL SEQ A	BIOL 201 + 202 + 203
CAN BUS 2	BADM 101; or BADM 103
CAN BUS 4	BADM 102; or BADM 104
CAN BUS SEQ A	BADM 101 + 102; or BADM 103 + 104
CAN CHEM 2	CHEM 201
CAN CHEM 4	CHEM 202
CAN CHEM 6	CHEM 100; or CHEM H100
CAN CHEM 12	CHEM 255
CAN CHEM SEQ A	CHEM 201 + 202
CAN CSCI 2	CIS 101
CAN CSCI 10	CIS 108
CAN DRAM 8	TA 106
CAN DRAM 12	TA 115
CAN DRAM 18	TA 101
CAN ECON 2	ECON 101
CAN ECON 4	ECON 102
CAN ENGL 2	ENGL 101
CAN ENGL 4	ENGL 102
CAN ENGL 6	ENGL 109
CAN ENGL 8	ENGL 245
CAN ENGL 10	ENGL 246
CAN ENGL 14	ENGL 230
CAN ENGL SEQ A	ENGL 101 + 102
CAN ENGL SEQ B	ENGL 245 + 246
CAN FREN 2	FREN 101
CAN FREN SEQ B	FREN 103 + 104
CAN GEOG 2	GEOG 101
CAN GEOG 4	GEOG 102
CAN GEOG 6	GEOG 101 + 101L
CAN GEOL 2	GEOL 101
CAN GOVT 2	POLS 102; or POLS H102
CAN HIST 8	HIST 117; or HIST H117
CAN HIST 10	HIST 118: or HIST H118
CAN HIST 14	HIST 103
CAN HIST 16	HIST 104
CAN MATH 2	MATH 132
CAN MATH 8	MATH 104
CAN MATH 18	MATH 226
CAN MATH 20	MATH 227
CAN MATH 22	MATH 228
CAN MATH 24	MATH 270
CAN MATH SEQ B	MATH 226 + 227
CAN MATH SEQ C	MATH 226 + 227 + 228
CAN PHIL 2	PHIL 101
CAN PHIL 4	PHIL 108
CAN PHIL 6	PHIL 109
CAN PHYS 2	PHYS 221
CAN PHYS 4	PHYS 222
CAN PHYS 12	PHYS 203
CAN PHYS SEQ A	PHYS 221 + 222
CAN PHYS SEQ B	PHYS 201 + 202 + 203 + H204
CAN PSY 2	PSYC 101
CAN SOC 2	SOC 101
CAN SOC 4	SOC 102
CAN SPAN 8	SPAN 103
CAN SPAN SEQ A	SPAN 101 + 102
CAN SPAN SEQ B	SPAN 103 + 104
CAN SPCH 4	SPCH 109
CAN SPCH 10	SPCH 108
CAN STAT 2	MATH 120

Table 1

Preparation for Transfer to

California State University-San Bernardino's

Liberal Studies Major

*Leading to the **Multiple Subjects (K-6) Teaching Credential***

Once at Cal State, students choose a concentration from almost any major available there, from which some courses can be applied to requirements for supplementary authorizations allowing them to teach single subjects in grades 9 and below. Completing these courses fulfills all course requirements for VVC's A.A. degree in Liberal Arts.

☐ **Freshman Composition**
Grade of "C" or better required
Choose One
ENGL 101 or H101

☐ **Oral Communication**
Grade of "C" or better required
Choose One
SPCH 106, 107, 108 or 109

☐ **Literature**
Choose One
ENGL 102, 116, 240, or 241;
TA 104 or 116

☐ **World Civilization I**
HIST 103

☐ **American Civilization**
Choose One
HIST 117, H117, 118, or H118

☐ **American Government**
Choose One
POLS 102 or H102

☐ **Ideas of Mathematics**
Grade of "C" or better required
MATH 132

☐ **Life Sciences**
BIOL 100

☐ **Physical Sciences**
Both Disciplines are Required
CHEM 100 or H100
PHYS 100

☐ **Technology**
Choose One
CIS 106 or ETEC 106

☐ **Art Appreciation**
Choose One
ART 101, 102, 105, or 106;
MUSC 100;
TA 101

☐ **Physical Education**
Choose One
Any PE activity course numbered APE 160 to 186, or PE 160 to 266, or PEDA 160 to 277, or TA 160 to 275

☐ **Physical Fitness**
PE 150 (2 units)

☐ **Health**
Choose One
ALDH 102 or PE 102

☐ **Child Development**
CHDV 146 or PSYC 111

☐ **Observations and Methods in Child Development**
No comparable courses at VVC

☐ **Critical Thinking**
Grade of "C" or better required
Choose One
ENGL 104 or H104;
PHIL 109 or 207

☐ **Philosophy**
Choose One
PHIL 101, 108, 120, or 121;
RLST 101, 105, 106, or 110

☐ **Foreign Language**
Choose One
FREN 102, 103, or 104;
GERM 102, 103, or 104;
SPAN 102, 103, or 104
SPCH 123

☐ **Assessment**
No comparable courses at VVC

☐ **Classroom Experiences**
No comparable courses at VVC

Table 2

Preparation for Transfer to

California State University-San Bernardino's
Human Development/Child Development Track II Major

*Leading To The **Multiple Subjects (K-6) Teaching Credential***

This track prepares students in the areas of child assessment, child guidance, developmentally-appropriate practices with children, cognitive development, individual differences in learning style, the value of play, parenting and family relations, and exceptional development. Completing these courses also fulfills all course requirements for the A.A. degree in Liberal Arts at VVC. Visit www.assist.org for any updates.

☐ **Freshman Composition**
Grade of "C" or better required
Choose One
ENGL 101 or H101

☐ **Oral Communication**
Grade of "C" or better required
Choose One
SPCH 106 or 109

☐ **Literature**
Choose One
ENGL 102, 116, 240, or 241;
TA 104 or 116

☐ **World Civilization I**
HIST 103

☐ **World Civilization II**
HIST 104

☐ **American Civilization**
Choose One
HIST 117, H117, 118, or H118

☐ **American Government**
Choose One
POLS 102 or H102

☐ **Ideas of Mathematics**
Grade of "C" or better required
MATH 132

☐ **Life Sciences**
BIOL 100

☐ **Physical Sciences**
BOTH Disciplines are Required
CHEM 100 or H100
PHYS 100

☐ **Technology**
Choose One
CIS 106 or ETEC 106

☐ **Art Appreciation**
Choose One
ART 101, 102, 105, or 106;
MUSC 100;
TA 101

☐ **Physical Education**
Choose One
Any PE activity course numbered APE 160 to 186, or
PE 160 to 266, or PEDA 160 to 277, or TA 160 to 275

☐ **Physical Fitness**
PE 150 (2 units)

☐ **Health**
Choose One
ALDH 102 or PE 102

☐ **Child Development**
ALL Are Required
CHDV 127A, 127B, and 146

☐ **Observations and Methods in Child Development**
No comparable courses at VVC

☐ **Critical Thinking**
Grade of "C" or better required
Choose One
ENGL 104 or H104;
PHIL 109 or 207

☐ **Philosophy**
Choose One
PHIL 101, 108, 120, or 121;
RLST 101, 105, 106, or 110

☐ **Foreign Language**
Choose One
FREN 102, 103, or 104;
GERM 102, 103, or 104;
SPAN 102, 103, or 104

Table A

Preparation for Transfer to

Azusa Pacific University's

Accelerated B.A. Degree in Human Development

*Leading to the **Multiple Subjects (K-8)** and/or **Special Ed Teaching Credential***

APU's accelerated bachelor's degree in Human Development meets subject-matter preparation requirements for the multiple subject and/or special education programs, and can be completed by attending classes one night per week for 18 months. Upon completion of the B.A., graduates often enroll in APU's intern teacher-training program that combines the K-8 credential and a master's degree (M.A.). The classroom is located on VVC's lower campus, telephone (760) 952-1765. Contact APU about periodic informational meetings on their programs and to learn of any updates to this sheet.

Requirements for admission include:

- *A minimum of 60 and a maximum of 70 UC- or CSU-transferable semester units, each of which is completed with a "C-" or better.*
- *Minimum of 25 years old.*
- *Minimum of 5 years overall work experience.*
- *The following VVC courses, as part of your overall package of 60-70 transferable units.*
- *Note that students who have completed at least 8 of the areas listed below, and have at least 60 transferable units (including Intermediate Algebra), are eligible to start with the next group.*

REQUIRED COURSES

(completed at VVC or elsewhere)

☐ English Composition

ENGL 101

☐ Composition/Speech

Choose One

ENGL 104; SPCH 106, 109

☐ Math

Choose One

MATH 105 (preferred), 132

☐ Foreign Language

Choose One

FREN 101, 102, 103, 104; GERM 101, 102, 103, 104; SPAN 101, 102, 103, 104; SPCH (ASL) 122, 123, 124, 125

☐ Fine Arts

Choose One

ART 101, 102, 105; MUSC 100, 101, 115, 116

☐ History/Government

Choose One

HIST 117, 118; POLS 102

☐ Psychology/Sociology

Choose One

ANTH 102; PSYC 101, 103, 110, 204; SOC 101

☐ Literature

Choose One

ENGL 102, 230, 231, 240, 241

☐ Science with lab

Choose One

BIOL 100, 107, 201, 202, 203; CHEM 100, 201, 202; GEOL 101, 102; PHYS 100, 221, 222

☐ Bible Survey

No course accepted from VVC; see RLGS 1 (online) at Barstow CC; RELIG 175 at SBVCC; or contact APU

☐ *Strongly Recommended:*

HIST 115

Table B

Preparation for Transfer to

Azusa Pacific University's

B.S. Degree in Organizational Leadership

Completing these courses allows students to transfer to APU's accelerated bachelor's degree program, which can be completed by attending classes one night per week for 15 months. The classroom is located on VVC's lower campus; you can contact the office at (760) 952-1765. APU's main campus is at (626) 815-5301, or you can find them on the web at www.apu.edu. ***Note that no math is required.***

Requirements for admission include:

- *A minimum of 60 and a maximum of 70 UC- or CSU-transferable semester units, each of which is completed with a "C-" or better.*
- *Minimum of 25 years old, with a minimum of 5 years overall work experience.*
- *The following VVC courses, as part of your overall package of 60-70 transferable units.*
- *Note that students who have completed at least 5 of the areas below, and have 60 transferable units, are eligible to start with the next group.*

REQUIRED COURSES

(completed at VVC or elsewhere)

☐ **English Composition**
ENGL 101

☐ **Composition/Speech**
Choose One
ENGL 104; SPCH 106, 109

☐ **Fine Arts**
Choose One
ART 101, 102, 105; MUSC 100, 101, 115, 116

☐ **History/Government**
Choose One
HIST 117, 118; POLS 102

☐ **Psychology/Sociology**
Choose One
ANTH 102; PSYC 101, 103, 110, 204; SOC 101

☐ **Literature**
Choose One
ENGL 102, 230, 231, 240, 241

☐ **Science with lab**
Choose One
BIOL 100, 107; CHEM 100, 201; PHYS 100

☐ **Bible Survey**
No course accepted from VVC; see RLGS 1 (online) at Barstow CC, RELIG 175 at SBVCC, or contact APU

What courses will I take at APU?

Term One

- Dynamics of Group Behavior
- Adult Development & Learning Assessment
- Organizational Analysis
- Intro to Research Methodology
- Applied Research Project I

Term Two

- Managing Interpersonal Communication
- Bible and Business Ethics
- Applied Research Project II
- Managerial Communication
- Intro to Data Analysis and Presentation

Term Three

- Cultural Influences in the Workplace
- Applied Research Project III
- Christian Worldview and the Profession
- Principles of Mgmt and Supervision
- Integrating Managerial Principles
- Case Study – Project IV

Table C

Preparation for Transfer to

Chapman University College's

Accelerated Bachelor's Degree Programs in the High Desert

Founded in 1861, Chapman University offers bachelor's degrees and teaching credential programs at their Victor Valley Branch Campus, located near VVC. At present, their B.A. programs include the ones listed below. To transfer to Chapman, complete the CSU GE (what we call "the pink sheet"), or IGETC ("the blue sheet"), plus any pre-major courses indicated below. Request FULL GE Certification prior to transfer. Since Chapman requires only 36 upper division semester units, you could bring in up to 88 transferable units. It is likely to your advantage to complete your Associate's degree at VVC, within which you satisfy all GE and pre-major requirements for transfer, while maintaining a GPA of at least 2.0. For the most up-to-date information, please contact Chapman directly, at (760) 955-7555.

B.A. in Criminal Justice

The Criminal Justice program offers both theoretical and applied knowledge in administration, methods of research, and pragmatic analysis of various social, legal and penal systems, institutions and issues. Graduates often go on to further study in criminal justice, law school, or may enter the job market in areas such as law enforcement, court and paralegal occupations, corrections, and security.

VVC Preparation: *AJ 101, SOC 101, SOC 102, MATH 120.*

B.A. in Organizational Leadership

This program prepares students to become innovative members of the workforce and to assume leadership roles within their chosen organization. Students learn how to diagnose organizational problems; acquire the tools and ethical framework for critical judgment; and develop interpersonal skills for group decision-making, creative problem-solving, and conflict resolution. There are two options in the major: the administration emphasis and the communication emphasis.

VVC Preparation: *SPCH 106, 115, CIS 101, BADM 116, and MATH 120. For the Administration emphasis, add: BADM 101 or 103. For the Communication emphasis, add: ENGL 104 and SPCH 109.*

B.A. in Psychology

The study of human behavior is valuable for a student's growth as a person, as preparation for entering a career in one of the human services areas, or for pursuing graduate study in one of the psychological disciplines. Each student's major is individually designed, and includes a core of courses covering human development; history and theories of psychology; and statistics and research design.

VVC Preparation: *PSYC 101, MATH 120.*

B.A. in Social Sciences

The Social Sciences major is designed both for the prospective teacher and for those who wish to pursue careers in a variety of policy-making areas. Social Sciences encompasses a number of disciplines; the major requires students to choose three areas of concentration.

VVC Preparation:
PSYC 101;
one of the following: HIST 103,104, 117, 118;
one of the following: POLS 101, 102, 112, 110, 112 and
one of the following: SOC 101, 102

B.A. in Sociology

Sociology is the study of humanity's diverse ways of interacting, and the kinds of social systems and institutions we build. Among the areas of study are the causes, characteristics, and consequences of group life, culture, community life, family patterns and relationships, social change, gender and ethnic relations, social class, mass media, and social movements. Sociology graduates typically move on to post-graduate degrees in sociology or social work, or seek employment in such areas as human resources, law enforcement, social work, youth work, urban planning, and others.

VVC Preparation: *SOC 101, MATH 120. For the Social Work emphasis, add: SOC 102 or SOC 103.*

Table D

Preparation for Transfer to

Southern Illinois University's

B.S. Degree in Workforce Education and Development

Held in Riverside

Southern Illinois University (SIU) offers a fully accredited bachelor's degree program that can be completed by attending courses in Riverside ***every other weekend*** *(Saturday and Sunday, 8:00 am to 4:00 pm)* ***for about one year****. The program trains students to analyze employee training needs and then design, develop, implement and manage training programs and projects. Corporate training skills are widely used in business, industry, government and law enforcement settings. This is a well-paid career that allows you to enjoy good job prospects in many industries and geographic regions. VVC graduates of the SIU program report that they really enjoyed the courses, met interesting people, and now have good jobs. For more information, visit www.saluki.siu.edu, or e-mail the local campus at orrantia@siu.edu, or call (909) 486-2871.*

Requirements for the B.S. include completing (1) your general education – which can be accomplished at a community college, like VVC; (2) your electives; and (3) the WED major.

1. General Education: The simplest way to fulfill your GE requirements for SIU is to complete your associate's degree, within which you **satisfy the GE-Breadth certification requirements for transfer to the California State University (CSU) system** (see VVC's "pink sheet"), since SIU accepts CSU GE certification as completing their core curriculum requirement. Stop by VVC's Counseling Department to arrange for certification.

2. Electives: Up to 44 units of elective credit may be granted – at no cost – for certain prior work, military, and professional training experiences, so that if you have been in the work force for four or more years, you may only have to complete your GE, then transfer to SIU to take the required courses for the major to earn your B.S. degree. Talk with SIU to find out what applies in your situation.

3. Courses in the WED major that are required during your year at SIU include, in order:

WED 460 – Occupational Analysis and Curriculum Development
A systems approach to curriculum development

WED 462 – Instructional Methods and Materials
A systems approach to instructional methods in occupational training

WED 384 – Adult Education and Training
Planning and preparing adult and workforce programs

WED 463 – Assessment of Learner Performance
Development and use of assessment instruments

WED 466 – Foundations of Work Education
Role of education and development in preparing people for the workforce

WED 469 – Training Systems Management
Principles and techniques for managing training in organizations

Independent Study courses and internship hours round out the program.

Table E

Preparation for Transfer to

University of La Verne's
Accelerated Bachelor's Degree Programs in the High Desert

The University of La Verne offers six bachelor's degree programs at their High Desert Campus in Victorville. To prepare for them, complete either the CSU general education requirements (what we call the "pink sheet"), or the IGETC requirements ("blue sheet"). Three of the majors also require specific pre-major preparation, as indicated below. Since ULV accepts up to 84 transferable units, it is probably to your advantage to complete your Associate's degree, within which you satisfy all GE and pre-major requirements, before you transfer. Some students apply to ULV's program, begin their bachelor degree classes at LV and continue onward at VVC through co-enrollment, completing a second, post-associate certificate. It is possible to transfer the additional elective units into their bachelor's degree with ULV. For more information, and to learn of any updates to this sheet, please contact Inge Maranto at (800) 695-4858 or (760) 843-0086. ULV website is www.ulv.edu.

B.A., Business Administration
This program offers a broad exposure to the traditional areas of economics, marketing, management, and the financial disciplines.

Specific preparation (4 courses): BADM 101 or 103, and BADM 102 or 104; ECON 101 and 102.

B.S., Business Management
Program focuses on the human capital as the critical success factor to build a competitive edge for business organizations.

B.S., Child Development (Pre-K through lower elementary)
This major focuses on the development of young children in relation to the family, school and community, and may qualify graduates for the Child Development Master Teacher Permit. The math requirement for this degree is completed by taking ULV's Mgmt 388 (Statistics), the preparation for which is VVC's Math 50. Math 90 or higher is not required for this major at ULV. Note: This program does not specifically prepare students to take the CSET-MS, as does the Liberal Studies program.

Specific preparation: CHDV 106 and 146; one of the following: CHDV 127A, 127B, or 138 (3 units); and one of the following: CHDV 110, 132, 133, 134, 137, 143, 144, 145; or 147 and 10 combined.

B.S., Health Administration
This non-clinical program prepares graduates to apply accounting, forecasting and resource allocation techniques and implement effective change management strategies.

B.A., Liberal Studies
Designed to prepare K-8 teachers for elementary schools, this major has very specific course suggestions to prepare graduates to pass the CSET exam, which are listed on the next page.

B.S., Organizational Management
Designed primarily for the working adult, this major focuses on enhancing management skills.

B.S., Public Administration
Developed for current and aspiring managers and administrators, this program focuses on theories, operations and procedures of public management.

Certificate, Applied Management
Consists of 4 courses that can be completed in one year or less. These courses will provide the skills needed to enhance career success.

Table E *continued*

Preparation for Transfer to
University of La Verne's
B.A. Degree in Liberal Studies
Multiple Subject Preparation for Teaching K-8

You can complete this program by attending classes at ULV's High Desert Campus in Victorville. Applicants must be either 25 years old or have completed 32 semester units of transferable college credit, including English Composition I and II and have a cumulative GPA of 2.2. ULV will allow you to use either IGETC or CSU-GE to prepare for this program; however, it is highly recommended that you take the courses below before transferring, in order to better prepare for the CSET-MS, required of all elementary school teachers.

Note: These requirements are subject to change. For further information, please contact Inge Maranto at (800) 695-4858 or (760) 843-0086.

ENGLISH:

- ☐ **English Composition I**
  Choose one
  ENGL 101 or ENGL H101

- ☐ **English Composition II**
  Choose one
  ENGL 104 or ENGL H104

- ☐ **Literature**
  Choose one
  ENGL 102, H102, 162, 230, 231, 232, 233, 245 or 246

SPEECH:

- ☐ **Speech**
  SPCH 109

FINE ARTS:

- ☐ **The History of Visual & Performing Arts**
  Take Humanities 1 at Barstow

MATH AND SCIENCE:

- ☐ **Math**
  Choose one
  MATH 105 or MATH H105

- ☐ **General Biology with Lab**
  BIOL 100

- ☐ **Physical Science I**
  BOTH CHEM 100 *and* PHYS 100;
  OR take PHSC 1 (only) at Barstow

- ☐ **Physical Science II**
  PSCI 101

MOVEMENT AND SPORTS SCIENCE:

- ☐ **Health and Fitness Strategies**
  Choose one
  PE 102 or ALDH 102

- ☐ **Contemporary and Social Dance**
  Choose one
  ANTH 151, PEDA 174, 175, 274, or 275 *(must be taken for a letter grade)*

  Students planning to attend ULV's main campus, add:
- ☐ PE 150

SOCIAL SCIENCE:

- ☐ **Geography**
  GEOG 102 *Note—Students planning to attend ULV's main campus: Take Geog at ULV.*

- ☐ **World Civilization I and II**
  HIST 103 *and* HIST 104

- ☐ **U.S. History**
  Choose one
  HIST 117 or HIST H117

- ☐ **California History**
  HIST 115

- ☐ **American Government and Politics**
  Choose one
  POLS 102 or POLS H102

- ☐ **Behavioral Science**
  Choose one
  ANTH 102, SOC 101, SOC 102

VIII.
PROGRAMS OF STUDY

"Education is not preparation for life: education is life itself."

-John Dewey
1859-1952

ADMINISTRATION OF JUSTICE

All areas of Administration of Justice require that individuals possess the personal and physical qualities essential to effective peace officers. Many employment opportunities currently exist for individuals desiring entrance into law enforcement or related fields at various governmental levels. Security and corrections are fast-growing professions. Individuals interested in these professions should understand that the work is demanding, requiring a combination of training, education, and experience, along with mental and physical stamina.

The Administration of Justice program is designed to develop a student's understanding of the various operational functions within the criminal justice system. The educational emphasis will be the examination of crime causation, functions of law enforcement, criminal court system, and corrections. Students majoring in this subject area can prepare themselves for careers in law enforcement, corrections, and security at both the operational and administrative levels. For course descriptions, see Section IX of this catalog.

Careers in the criminal justice field are found at the federal, state, county, and city levels.

For employment at the federal level in such agencies as the Bureau of Alcohol, Tobacco and Firearms (ATF), the Drug Enforcement Agency (DEA), or the Federal Bureau of Investigation (FBI), a bachelor's degree in accounting, computer information systems, or the physical sciences is preferred.

Careers at the state, county, or city level usually require a high school diploma, but an associate's degree is preferable. Careers in law enforcement usually start with Police Academy Training. This modulated academy provides the opportunity to become a reserve officer while completing Levels II and III of training. A Level I graduate may elect to become a reserve officer or may apply for a full-time position with a law enforcement agency in California.

Careers in Forensics - the application of science and technology to the analysis of physical evidence - may be entered through the Field Evidence Technician course (AJ 67) and the Fingerprint Recognition and Classification course (AJ 111). Courses in Forensic Biology and Forensic Chemistry offer preparation for students planning to transfer to bachelor's level programs, such as those at the following CSU campuses: Fullerton, Long Beach, Sacramento, and Stanislaus. Candidates with master's degrees in this field are being offered salaries of around $70,000.

Career Opportunities

Communication Technician
Correctional Officer
Criminologist
Deputy Sheriff
Forensic Chemist
Forensic Technician
Juvenile Correctional Office
Police Officer
Probation Officer
Security Manager
Security Officer
Special Agent/Investigator

Faculty

Full Time
Ron Fields
David Bellomy

Degrees and Certificates Awarded

Associate in Science, Administration of Justice
Administration of Justice Certificate
Correctional Science Certificate
Corrections Certificate
Fingerprint Recognition
Forensic Specialist Certificate
Juvenile Corrections Certificate
Level III Modulated Basic Academy
PC 832 Certificate
Police Technician Specialist Certificate
School Police Certificate

Certificate Programs

ADMINISTRATION OF JUSTICE CERTIFICATE

Prepares the student for a variety of employment opportunities within the Criminal Justice System. Employment opportunities include Corrections, Law Enforcement, Traffic Enforcement, Probation, Parole, Security, Prevention Loss officer, and related Social Worker positions.

Requirements
24.0 units minimum
All of the following must be completed:

		Units
AJ 101	Introduction to Administration of Justice	3.0
AJ 102	Criminal Procedures	3.0
AJ 103	Criminal Law	3.0
AJ 104	Legal Aspects of Evidence	3.0
AJ 126	Traffic Control	3.0
AJ 127	Crime and Delinquency	3.0
AJ 133	Writing for Criminal Justice	3.0
AJ 74	Multicultural Issues in Public Safety	3.0

CORRECTIONAL SCIENCE CERTIFICATE

Requirements
15.0 units minimum
All of the following must be completed with a grade of "C" or better

		Units
AJ 91	Corrections Supervision and Control	3.0
AJ 103	Criminal Law	3.0
AJ 132	Introduction to Corrections	3.0

AJ 140	Communication Skills for Interviewing and Interrogation	3.0
AJ 74	Multicultural Issues in Public Safety	3.0

CORRECTIONS CERTIFICATE

Prepares the student to meet the legal requirements established by Correction Standards and Training (STC), in order to be employed as a city or county correctional officer.

Requirements
8.0 units minimum

		Units
AJ 64	Basic Corrections Officer Academy	8.0

FINGERPRINT RECOGNITION AND CLASSIFICATION CERTIFICATE

Requirements
3.0 units minimum

		Units
AJ 31	Fingerprint Recognition and Classification	3.0

FORENSIC SPECIALIST CERTIFICATE

This certificate meets the standards required of a Forensic Specialist whose duties include processing evidence at crime scenes, packaging and transporting evidence to a crime lab, and testifying in court. The certificate requirements meet the standards set by the Commission on Peace Officer Standards and Training and the College Advisory Committee.

Requirements
3.5 units minimum

		Units
AJ 67	Field Evidence Technician	3.5

FORENSIC CERTIFICATE

This certificate introduces the student interested in law enforcement or forensic science to the methods and techniques used on Forensic Science. It also provides the basis for the student to continue on toward more advanced certificate programs. This certificate presently covers evidence collection in the field, forensic anthropology, forensic chemistry, forensic entomology, and forensic pathology. Students will learn the basic forensic methods and techniques used both in the field and in the laboratory as well as the analysis of data and report writing.

Requirements
17.5 units minimum

		Units
AJ 101	Introduction to Administration of Justice	3.0
AJ 67	Field Evidence Technician	3.5
ANTH 53 or AJ 53	Forensic Anthropology	3.0
BIOL 52 or AJ 52	Forensic Entomology	3.0
CHEM 150	Forensic Chemistry	5.0

JUVENILE COUNSELOR COURSE CERTIFICATE

The Juvenile Counselor Course is required for all Probation Officers working in a Juvenile Intake Center

Requirements
6.0 units minimum

		Units
AJ 75	Juvenile Counselor Course	6.0

LAW ENFORCEMENT ACADEMY - LEVEL III CERTIFICATE

The following certificate will be awarded to students who have successfully completed the Level III modulated Academy Course. This course is certified by the Commission on Peace Officers Standards and Training.

Requirements
7.5 units minimum

		Units
AJ 58	PC 832 Law Enforcement	3.0
AJ 30	Firearms Training	0.5
AJ 80	Law Enforcement Academy Level III	4.0

MODULE A RESERVE ACADEMY FIREARMS ONLY CERTIFICATE

Requirements
0.5 unit minimum

		Units
AJ 30	Firearms Training	0.5

PC 832 LAW ENFORCEMENT COURSE CERTIFICATE

Prepares the student to meet the minimum requirements as a non-designated Level III Reserve Peace Officer, or, as a designated limited-duty peace officer. This certificate program complies with the Commission on Peace Officer Standards and Training.

Requirements
3.0 units minimum

		Units
AJ 58	PC 832 Law Enforcement Course	3.0

SCHOOL POLICE COURSE: PC 832.3 CERTIFICATE

Requirements
2.0 units minimum

		Units
AJ 8	PC 832.3 Campus Law Enforcement	2.0

POLICE TECHNICIAN SPECIALIST CERTIFICATE

Prepares the student for a variety of employment opportunities with any Law Enforcement Agency, in a civilian capacity, as a Forensic Specialist or as an Evidence Technician.

Requirements
15.5 units minimum
All of the following must be completed:

		Units
AJ 103	Criminal Law	3.0
AJ 126	Traffic Control	3.0
AJ 133	Writing for Criminal Justice	3.0
AJ 140	Communication Skills for Interviewing and Interrogation	3.0
AJ 67	Field Evidence Technician	3.5

Associate Degree

To earn an Associate in Science degree with a major in Administration of Justice, complete a minimum of 18 units from any of the certificate requirements above or from any Administration of Justice courses and meet all Victor Valley College graduation requirements. AJ 138 (Cooperative Education) may be used as elective credit but may not be used to fulfill major requirements.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Criminal Justice major
AJ 101, 103
Optional: Select one course from the following:
MATH 105, H105, or 132
CSU General Education-Breadth Requirements

Chapman University, Victorville
Criminal Justice major
(See **Table C** in Section VII of this catalog.)

Business Administration is also a highly recommended bachelor's degree major for people in this field who are seeking advancement. See Business Administration for requirements for this major.

AGRICULTURE AND NATURAL RESOURCES

California and the United States are rapidly reaching a crisis situation in the management and preservation of natural resources. The recent crisis with energy in California bears witness to this fact. The most important issues concern the critical resources of food, energy, water, air, wildland and wildlife. It is essential that our society be taught a greater awareness of the need to conserve and wisely manage these resources. Careers and the public and private entities that manage and use these resources are expanding rapidly as the critical nature of these issues become more apparent. Individuals that are trained in agricultural and natural resource principles and issues are perfectly positioned to take advantage of these exciting opportunities.

The Agriculture and Natural Resource Department is intent on providing students with the training and resources needed to compete in this rapidly expanding career field and the skills needed to continue their studies in this arena. The department has designed its educational programs on the following premises:

1. A focus on the underlying scientific principles and math skills that support the disciplines of agriculture and natural resource management.

2. Application of advanced technologies that include the management of data with sophisticated computer software, Geographic Information Systems (GIS), Global Positioning Systems (GPS) and Remote Imaging Technology.

3. A focus on "Complete Ecosystem Management," that balances the need to preserve natural ecological relationships with the social and economic needs of the humans that use a particular ecosystem or region.

4. Provide increased "hands-on" learning and field experiences. The skills needed to be successful in these arenas are best taught through actual experience via laboratories, investigative field experiences, internships, field trips and simulated case studies.

The department currently focuses on training students in fields of Environmental Horticulture, Landscape Design and Management, Landscape Irrigation, Floral Design, Natural Resource Management, Geographic Information Science, Water Resource Management, and Equine and Animal Science.

Career Opportunities

Agriculture and Conservation Extension Officer
Agricultural and Food Inspectors
Agriculture and Natural Resource Educators
Arborists and Tree Pruning Technicians
Cartographic Technicians
Environmental and Natural Resource Planner
Farm, Ranch Hands and Managers
Field Biologists
Floral Design Technicians and Floral Shop Managers
GIS Analysts
Horticulture, Irrigation and Fertilizer Industry Sales Representatives
Irrigation Specialists
Landscape Architects and Designers
Landscape Construction/Installation Contractors
Landscape Maintenance Technicians
Natural Resource Research Technicians
Nursery Technicians and Managers
Park and Wildlife Managers
Plant Breeders, Propagators and Growers
Turf Grass Managers

Water, Soils and Biotechnology Lab Technicians
Water Use, Education and Conservation Technicians
Zoo, City, Country Club and Botanic Garden Horticulturists

Faculty

Full-time
Neville Slade

Degrees and Certificates Awarded

Associate in Science, Environmental Horticulture
Animal Science Technician Certificate
Environmental Field Studies Technician
Equine Science Specialist Certificate
Floral Design Certificate
Geospatial Technician Certificate
Horticulture and Landscape Technician Certificate
Horticulture Specialist Certificate
Landscape Specialist Certificate
Landscape Irrigation Certificate
Mojave Desert Master Gardner Certificate
Natural Resource Management Technician Certificate

Certificate Programs

ANIMAL SCIENCE TECHNICIAN CERTIFICATE

Requirements
10.0 units minimum
Group I - All of the following must be completed:

		Units
AGNR 100	General Animal Science	3.0
AGNR 101	Animal Nutrition	3.0

Group II - One of the following must be completed:

BIOL 100	General Biology	4.0
AGNR 102	Equine Science	4.0

ENVIRONMENTAL FIELD STUDIES CERTIFICATE

The purpose of this certificate is to teach the state-of-the-art technologies and science of natural resource management. Engage students with their environment through community conservation projects, field studies and applied environmental research. Highlight the diversity and depth of career opportunities and advanced study. Promote linkage with local businesses, government agencies and community groups via partnerships, joint projects, internships, guest speakers and workshops.

Requirements
13.0 units minimum
All of the following must be completed:

		Units
AGNR 74	Environmental Field Studies	9.0
AGNR 170	Environmental Science	4.0

EQUINE SCIENCE SPECIALIST CERTIFICATE

Introduces students to the diverse and exciting horse industry in California. Provides the scientific basis to continue studies in this field.

Requirements
7.0 units minimum
All of the following must be completed:

		Units
AGNR 100	General Animal Science	3.0
AGNR 102	Equine Science	4.0

FLORAL DESIGN CERTIFICATE

The core of the specialized courses in the Floral Design Certificate have been selected to prepare the student for employment in a commercial flower shop as a designer or assistant to the manager. These classes are taught by professionals in the industry and opportunities for success as a florist are unlimited. Whether for fun or profit, floral design is rapidly becoming a growing industry. Anyone desiring a career as a florist can be assured of advancement by acquiring this state-of-the-art certificate.

Requirements
14.0 units minimum
Group I - All of the following must be completed:

		Units
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 160	Beginning Floral Design	3.0
AGNR 161	Floral Design II	2.0
AGNR 140	Plant Materials & Usage I	3.0

Group II - One of the following must be completed:

AGNR 122	Plant Propagation and Production	3.0
AGNR 153	Landscape Maintenance	3.0
AGNR 152	Landscape Irrigation	3.0
AGNR 150	Landscape Design	3.0
AGNR 154	Landscape and Nursery Management	3.0
AGNR 129	Water Efficient Landscaping	3.0
AGNR 170	Environmental Science	4.0
AGNR 141	Plant Materials and Usage II	3.0
AGNR 60	Environmental Horticulture Lab	3.0
SPCH 109	Public Speaking	3.0
BIOL 104	Botany	4.0
BIOL 71	Introduction to Lab Technique	4.0
CT 107	Technical Mathematics	3.0
CT 131	Microcomputers in Construction	4.0
AGNR 138	Cooperative Education	3.0

GEOSPATIAL TECHNICIAN CERTIFICATE

Geospatial Information Systems Science is one of the fastest growing industries in the world today. While the rest of the technology sector has been working to recover from economic hardships, the GIS industry has grown to a $30 billion per year enterprise and whose influence and utility is creating a symbiotic relationship and integration throughout industry, business, and government. This certificate is designed to introduce the students to various scientific theoretical aspects associated with this field and prepare them to enter this exciting field as a technician. There is also a "hands on" component where the students are introduced to the highly sophisticated software packages through real-world conservation projects with local agencies and businesses.

Requirements
13.0, 14.0, or 15.0 units
Group I - All of the following must be completed:

		Units
AGNR 72	Geospatial Technology I	4.0
AGNR 170	Environmental Science	4.0
AGNR 171	Introduction to Geographic Information Science	3.0

Group II - One of the following must be completed:

AGNR 60	Environmental Horticulture Lab	3.0
AGNR 73	Water Conservation Science	3.0
AGNR 75	Conservation Research Lab	3.0
AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 122	Plant Propagation	3.0
AGNR 131	Soil Science	3.0
AGNR 141	Plant Materials and Usage II	3.0
AGNR 148	Special Topics	2.0
ANTH 6	Introduction to GIS for the Social Sciences	3.0
BIOL 109	Field Biology	4.0
CIS 96A	Structured Query Language A Using MySQL	2.0
CIS 280	Fundamentals of Database Management Systems	3.0
CIDG 280	Geographical Information Systems I	3.0
CIDG 281	Geographical Information Systems II	3.0
GEOG 101	Physical Geography	3.0
GEOL 103	California Geology	3.0

LANDSCAPE SPECIALIST CERTIFICATE

The Landscape Specialist Certificate prepares the student to design, install and maintain landscapes. Focuses on the special challenges of drought tolerant and cold hard landscapes.

Requirements
20.0 units minimum
Group I - All of the following must be completed:

		Units
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 152	Landscape Irrigation	3.0
AGNR 150	Landscape Design	3.0
AGNR 154	Landscape and Nursery Management	3.0
AGNR 140	Plant Materials and Usage I	3.0

Group II - Two of the following must be completed:

AGNR 151	Landscape Construction	3.0
AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 153	Landscape Maintenance Fundamentals	2.0
AGNR 129	Water Efficient Landscaping	3.0
AGNR 141	Plant Materials Usage II	3.0
AGNR 122	Plant Propagation & Production	3.0
AGNR 171	Introduction to Geographic Information Science	3.0
AGNR 170	Environmental Science	4.0
AGNR 131	Soil Science	3.0
AGNR 60	Horticulture Lab	4.0
SPCH 109	Public Speaking	3.0
BIOL 109	Field Biology	4.0
BIOL 104	General Botany	4.0
CT 107	Technical Math	3.0
CT 131	Microcomputers in Construction	4.0
AGNR 138	Cooperative Education	2.0 or 3.0

LANDSCAPE IRRIGATION CERTIFICATE

The Landscape Irrigation Certificate prepares the student to design, install and maintain irrigation systems.

Requirements
11.0 units minimum
Group I - All of the following must be completed:

		Units
AGNR 152	Landscape Irrigation	3.0
AGNR 140	Plant Materials and Usage I	3.0
AGNR 129	Water Efficient Landscaping	3.0

Group II - One of the following must be completed:

AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 151	Landscape Construction	3.0
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 122	Plant Propagation & Production	3.0
AGNR 150	Landscape Design	3.0
AGNR 153	Landscape Maintenance Fundamentals	2.0
AGNR 170	Environmental Science	4.0
AGNR 171	Introduction to Geographic Information Science	3.0
AGNR 131	Soil Science	3.0
AGNR 141	Plant Materials Usage II	3.0
AGNR 60	Horticulture Lab	2.0, 3.0 or 4.0
AGNR 73	Water Science	3.0

HORTICULTURE SPECIALIST CERTIFICATE

The Horticulture Specialist Certificate prepares the student with the basics of establishing and/or managing a horticulture business and a wholesale or retail nursery. This certificate serves as a good crossover for students wishing to enter a natural resource management career.

Requirements
23.0 units minimum
Group I - All of the following must be completed:

		Units
AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 122	Plant Propagation & Production	3.0
AGNR 140	Plant Materials and Usage I	3.0
AGNR 131	Soil Science	3.0
AGNR 141	Plant Materials Usage II	3.0

Group II - Two of the following must be completed:

AGNR 151	Landscape Construction	3.0
AGNR 160	Basic Floral Design	3.0
AGNR 152	Landscape Irrigation	3.0
AGNR 153	Landscape Maintenance Fundamentals	2.0
AGNR 150	Landscape Design	3.0
AGNR 154	Landscape and Nursery Management	3.0
AGNR 129	Water Efficient Landscaping	3.0
AGNR 170	Environmental Science	4.0
AGNR 171	Introduction to GIS	3.0
AGNR 60	Horticulture Lab	2.0 or 3.0 or 4.0
SPCH 109	Public Speaking	3.0
BIOL 71	Introduction to Lab Tech	3.0
BIOL 109	Field Biology	4.0
BIOL 104	General Botany	4.0
CT 107	Technical Math	3.0
CT 140	Microcomputers in Construction	4.0
AGNR 138	Cooperative Education	2.0 or 3.0

HORTICULTURE AND LANDSCAPE TECHNICIAN CERTIFICATE

The Horticulture and Landscape Technician Certificate prepares the student for entry level positions within the nursery and landscaping industries.

Requirements
11.0 units minimum
Group I - All of the following must be completed:

		Units
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 122	Plant Propagation & Production	3.0
AGNR 140	Plant Materials and Usage I	3.0

Group II - One of the following must be completed:

AGNR 151	Landscape Construction	3.0
AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 122	Plant Propagation & Production	3.0
AGNR 160	Basic Floral Design	3.0
AGNR 152	Landscape Irrigation	3.0
AGNR 150	Landscape Design	3.0
AGNR 154	Landscape and Nursery Management	3.0
AGNR 129	Water Efficient Landscaping	3.0
AGNR 141	Plant Materials Usage II	3.0

MOJAVE DESERT MASTER GARDENER CERTIFICATE

Requirements
2.0 units minimum

		Units
AGNR 80	Master Gardner	2.0

NATURAL RESOURCE MANAGEMENT CERTIFICATE

Requirements
15.0 or 17.0 units
Group I - All of the following must be completed:

		Units
AGNR 123	Introduce to Plant Science	3.0
AGNR 131	Soil Science	3.0
AGNR 170	Environmental Science	4.0
AGNR 171	Introduction to Geographic Information Science	3.0

Group II - One of the following must be completed: 2, 3, 4 units

AGNR 60	Environmental Horticulture Lab	2.0, 3.0, or 4.0
AGNR 72	Geospatial Technology I	4.0
AGNR 73	Water Conservation Science	3.0
AGNR 75	Conservation Research Lab	2.0, 3.0, or 4.0
AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 122	Plant Propagation & Production	3.0
AGNR 129	Water Efficient Landscaping	3.0
AGNR 140	Plant Materials Usage I	3.0
AGNR 141	Plant Materials Usage II	3.0
AGNR 148	Special Topics	2.0
AGNR 151	Landscape Construction	3.0
AGNR 152	Landscape Irrigation	3.0
BIOL 71	Introduction to Lab Tech	3.0
BIOL 104	General Botany	4.0
BIOL 109	Field Biology	4.0
BIOL 127	ID/Study of Amphibians/Reptiles of Mojave Desert	3.0
BIOL 129	ID/Study of Mammals of Mojave Desert	3.0
CHEM 114	Environmental Chemistry	3.0
GEOG 103	Geography of California	3.0

GEOL 103	California Geology	3.0
FIRE 65	Basic Wildland Fire Control	2.0
PSCI 114	Environment and Energy	3.0

Associate Degree

To earn an Associate in Science degree with a major in Environmental Horticulture complete 18 units from any of the certificate requirements above or from any Environmental Horticulture courses and meet all Victor Valley College graduation requirements. AGNR 138 (Cooperative Education) may be used as elective credit, but may not be used to fulfill major requirements.

Transfer

Campuses that offer Environmental Horticulture and Animal Science majors or concentrations include: CSU-Chico, Fresno, Pomona, & CSU - Stanislaus.

Refer to ASSIST at www.assist.org for major preparation requirements.

University of California, Riverside
Botany and Plant Sciences major

University of California, Davis
Plant Science
Animal Science

IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required.

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

ALCOHOL AND DRUG STUDIES

Programs in Alcohol and Drug Studies are usually offered at community colleges and focus on aspects of alcohol and drug abuse and techniques in counseling those who have a substance abuse problem. At this time, Victor Valley College does not offer a certificate in Alcohol and Drug Studies, but the following courses fulfill some requirements for the Alcohol/Drug Studies Certificate at San Bernardino Valley College: ALDH 125, ENGL 101, PSYC 101, 108, 125, 133, SOC 101, SPCH 109.

Students should fulfill the general education requirements for San Bernardino Valley College if they plan to earn an associate degree. San Bernardino Valley College requires 6 units of humanities, 4 units natural science with lab, and 2 units of physical education in addition to the certificate requirements to earn an associate degree. Contact SBVCC for updated information: (909) 888-6511.

ALLIED HEALTH

The Allied Health department offers a variety of independent, non-program classes in health interest areas. Some may enable students to work by completing only one class, such as Medical Insurance, Certified Nursing Assistant, EMT, or Basic Arrhythmias. Others support various medical and secretarial programs or meet general interest needs.

The Paramedic and Medical Assistant programs are also in the Allied Health Department but are described in separate sections. For course descriptions, see Section IX of this catalog.

Career Opportunities

Insurance Biller
Monitor Technician
Nursing Assistant

Faculty

Full Time
John Doyle
Robert Flome

Degrees and Certificates Awarded

Nursing Assistant/Home Health Aide Certificate
Certified Phlebotomy Technician IA
Certified Phlebotomy Technician IB
Certified Phlebotomy Technician IC

Certificate Program

CERTIFIED PHLEBOTOMY TECHNICIAN 1A CERTIFICATE

This certificate prepares the student to take the state certification exam and to be employed as a phlebotomist in a doctor's office, hospital or independent clinical laboratory.

Requirements
3.0 units minimum
All of the following must be completed with a grade of "C" or better.

		Units
ALDH 90A	Certified Phlebotomy Technician IA	3.0

CERTIFIED PHLEBOTOMY TECHNICIAN 1B CERTIFICATE

Requirements
2.5 units minimum
All of the following must be completed with a grade of "C" or better.

		Units
ALDH 90B	Certified Phlebotomy Technician IB	2.5

CERTIFIED PHLEBOTOMY TECHNICIAN 1C CERTIFICATE

Requirements
1.0 unit minimum
All of the following must be completed with a grade of "C" or better.

		Units
ALDH 90C	Certified Phlebotomy Technician IC	1.0

NURSING ASSISTANT/ HOME HEALTH AIDE CERTIFICATE

This certificate prepares the student to take the state certification exam for nursing assistant and a job in a skilled nursing facility, long term care or home care.

Requirements
6.0 units minimum

ALDH 60	Nursing Assistant	4.5
ALDH 61	Home Health Aide	1.5

Associate Degree

No associate degree is awarded with a major in Allied Health. Allied Health courses fulfill requirements for certificates and majors in Business Education Technologies, Medical Assistant, and Paramedic. See specific programs for certificate and degree requirements. ALDH 138 (Cooperative Education) may be used as elective credit but may not be used to fulfill major requirements.

Transfer

Not a transfer major. Some Allied Health courses transfer as electives or fulfill subject credit requirements.

ANIMATION

See **Media Arts** and **Computer Integrated Design and Graphics.**

ANTHROPOLOGY

Training in anthropology will prepare one for any career that involves working on the interface between two cultures. Specialized preparation in this subject can lead to some of the world's most interesting work - the study of existing lifeways, archaeological excavation and interpretation, primate behavior, and social research into economics, politics, law, religion, art, and music. For course descriptions, see Section IX of this catalog.

Career Opportunities

Careers in anthropology are diverse, specialized, and related to the various areas of concentration which are offered at four-year college and universities: Listed below are just a few examples:

Archaeologist - Federal/State/Private
Cultural Resource Management
Environmental Impact Analyst
Expedition Guide
Health Researcher
Museum Curator/Exhibit Designer
Population Analyst
Recreation Specialist
Travel/Tourism Consultant
Urban Planner Analyst

Faculty

Full Time
Richard Cerreto
Lee Kinney

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts
GIS For The Social Sciences Certificate

Certificate Program

GIS FOR THE SOCIAL SCIENCES CERTIFICATE

Requirements
12.0 unit minimum
All of the following must be completed:

		Units
ANTH 6	Introduction to GIS for the Social Sciences	3.0
ANTH 7	Intermediate GIS for the Social Sciences	3.0
ANTH 8	Advanced GIS for the Social Sciences	3.0
ANTH 9	Field Applications in GIS for the Social Sciences	3.0

Associate Degree

No associate degree awarded with a major in Anthropology. Anthropology courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Anthropology major
Track A: ANTH 101, 102
Track B (Museum Studies): ANTH 101, 102, CIS 101
Optional: ART 112, 113, 114
CSU General Education-Breadth Requirements

University of California, Riverside
Anthropology major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information (909) 787-4531.
Completion of IGETC recommended.

ARCHITECTURE

Victor Valley College does not offer an Architecture program but does offer preparatory courses for transfer into Architecture.

An architect develops concepts for design projects which range from single objects such as a piece of furniture to complex, high-rise office buildings. The Architecture program is centered on the design laboratory experience with students progressing toward comprehensive architectural projects.

Architecture is an impacted major at some universities. As a result, students need to maintain a high GPA, complete as many course requirements as possible before applying for admission, and research all additional program requirements for specific colleges to which they will be applying.

A portfolio of each prospective student's work is usually required with the application. Therefore, students need to contact the college of choice early in their education to assure proper presentation of their work.

Transfer

Campuses that offer Architecture include:
CSU-Pomona & San Luis Obispo

ART AND DESIGN

Art and design are an integral part of our daily lives as creative expression and as commercial applications. Humankind is reflected in great works of art throughout time, depicting our deeds and actualization. A study in art and design will lead to the development of a diverse range of career possibilities that span from self-expression to commercial design.

Students may choose a program leading to an AA degree, and courses in art are transferable to four-year colleges. Consult with the department chairperson for specialized areas of interest. For course descriptions, see Section IX of this catalog.

Career Opportunities

Advertising
Architectural Designer
Commercial Artist/Graphic Designer
Computer Graphics/Imaging/Animation
Film Maker
Interior Designer
Medical Illustrator
Photographer/Fine-Art, Commercial
Theatre Set Designer
Video Director

Faculty

Full time
Frank Foster
Richard Ripley
Brent Wood

Degrees and Certificates Awarded

Associate in Arts, Fine Arts
Associate in Arts, Liberal Arts

Certificate Program

No certificates awarded.

Associate Degree

No associate degree awarded with a major in Art. Art courses may be used to fulfill requirements for an Associate of Arts degree with a major in Fine Arts or Liberal Arts. See Fine Arts or Liberal Arts for degree requirements for these majors. ART 138 (Cooperative Education) may be used as elective credit, but may not be used to fulfill major requirements.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Art major
ART 101, 102, 112, 113, 114, 125, PHOT 100
Plans I, II, IV: Add ART 122
Plan III: Add any foreign language 1 and 2 or equivalent proficiency
CSU General Education-Breadth Requirements

University of California, Riverside
Art major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
Completion of IGETC recommended.

ATHLETICS

In keeping with the philosophy of providing programs to meet the diverse needs of students so that they may continue to develop physically, mentally, and emotionally throughout their lifetime, Victor Valley College supports and encourages students to participate in its athletic programs.

To meet this philosophic commitment, Victor Valley College athletic offerings include football, softball, men's and women's tennis, women's volleyball, men's and women's basketball, wrestling, golf, men's and women's soccer, men's and women's cross country, men's and women's track and field, and baseball.

Victor Valley College is a member of the Foothill Athletic Conference and also competes with other community college conferences, California State and University junior varsity teams, private colleges, and service teams. A student must be enrolled in 12 units to participate in the intercollegiate athletic program. Student athletes are granted up to two years of eligibility per sport but must complete 24 units between seasons of competition with a "C" or better grade average in order to be eligible for the second year.

There are other factors that are essential in determining eligibility, and athletes should consult with the Eligibility Evaluator regarding eligibility matters. All varsity athletic classes meet 10 laboratory hours per week for 3 units. CSU, UC (UC credit limitation). For course descriptions, see Section IX of this catalog.

SEASON OF SPORT

Fall	Spring
Basketball (M-W)	Basketball (M-W)
Cross Country (M-W)	Baseball (M)
Football (M)	Golf (M)
Soccer (M-W)	Softball (W)
Volleyball (W)	Tennis (M-W)
Wrestling (M)	Track and Field (M-W)

AUTOMOTIVE TECHNOLOGY

Mission Statement
It is the mission of the Automotive Department of Victor Valley Community College to provide quality automotive instruction to a diverse community of students; the array of courses offered shall serve the educational needs of the beginning student as well as the employed professional. Through industry input the department shall strive to create an maintain the most up to date curriculum based on current industry trends. The department will acquire and maintain the appropriate equipment that will augment the current course curriculum.

Each year the Bureau of Labor Statistics lists the need for Automotive Technicians as one of the nation's highest. This shortage of well-trained technicians has been created by the technological advances caused by the addition of the computerized engine controls and the need to control automotive pollution.

Victor Valley College's automotive program is designed to give the student a thorough and complete knowledge of the basics of the modern automobile. The program is capable of training the student to entry-level performance on the latest industry approved equipment.

Career Opportunities

Federally recognized ASE certification in eight (8) categories
Parts Salesperson
Repair Shop Owner or Operator
State Certified Pollution Control Technician
Tune-up Technician

Faculty

Full time
Lee Bennett
Dan Rowland
John Sweet

Degrees and Certificates Awarded

Associate in Science, Automotive Technology
Automotive Brake and Suspension Specialist Certificate
Automotive Drivability Specialist Certificate
Automotive Inspection and Maintenance Technician Certificate
Automotive Repair Shop Manager Certificate
Automotive Specialist I Certificate
Automotive Specialist II Certificate
Automotive Technician Certificate
Automotive Transmission Specialist Certificate
Automotive Window Tinting Technician Certificate
Basic Inspection Area Smog Certificate
Collision Repair Technician Certificate
Engine Machinist Specialist Certificate
Enhanced Inspection Area Smog Technician Certificate
Heavy Duty Diesel Truck Lubrication and Inspection Specialist Certificate
Motorcycle Technician Repair Certificate
Recreational Vehicle Service and Repair Technician Certificate
Small Engine Repair Specialist Certificate

Certificate Programs

AUTOMOTIVE BRAKE AND SUSPENSION SPECIALIST CERTIFICATE

Requirements
8.0 units minimum
All of the following must be completed with a grade of "C" or better:

These classes can be taken in any order.	**Units**
AUTO 61 Automotive Brakes	4.0
AUTO 60 Automotive Suspension and Alignment	4.0

AUTOMOTIVE DRIVEABILITY SPECIALIST CERTIFICATE

Requirements
8.0 units minimum
All of the following must be completed with a grade of "C" or better:

These classes should be taken in the following order.		**Units**
AUTO 79B	Trouble Shooting and Repair of Ignition and Fuel Systems	4.0
AUTO 80A	Automotive Computers, Electronics, and Electrical Systems	4.0

AUTOMOTIVE INSPECTION AND MAINTENANCE TECHNICIAN CERTIFICATE

Requirements
6.0 units minimum
All of the following must be completed with a grade of "C" or better:

These classes can be taken in any order.		**Units**
AUTO 79A	Basic Tune Up	2.0
AUTO 58	Automotive Lubrication Technician	2.0
AUTO 59	Automotive Tire Technician	2.0

AUTOMOTIVE REPAIR SHOP MANAGER CERTIFICATE

Requirements
11.0 units minimum
All of the following must be completed with a grade of "B" or better:
These classes should be taken in the following order. **Units**

AUTO 50	Introduction to Automotive Technology	4.0
AUTO 77.0	Automotive Service Writer and Shop Management or concurrently with AUTO 50	2.0
AUTO 77L*	Automotive Service Writer and Shop Management Lab (2 times) or concurrently with AUTO 77	4.0
BET101	Beginning Keyboarding/Typing can be taken anytime during the program	1.0

*Note: AUTO 77L must be completed two times

AUTOMOTIVE SPECIALIST I CERTIFICATE (ENGINE REPAIR, DRIVE TRAIN, CHASSIS)

The certificate program in Engine Repair, Drive Train and Chassis will enable the student to obtain employment in any entry-level position in those related fields.

Requirements
24.0 units minimum
All of the following must be completed with a grade of "C" or better:
These classes can be taken in any order. **Units**

AUTO 51	Automotive Engines and Drive Trains	12.0
AUTO 57	Brakes, Wheel Alignment, and Suspension	12.0

AUTOMOTIVE SPECIALIST II CERTIFICATE (ENGINE PERFORMANCE, ELECTRONICS [AUTO], POLLUTION CONTROL)

The certificate program in Engine Performance, Electronics [Auto], and Pollution Control will enable the student to obtain employment in any entry-level position in those related fields.

Requirements
24.0 units minimum
All of the following must be completed with a grade of "C" or better:
These classes should be taken in the following order: **Units**

AUTO 79	Tune-up, Pollution Control, and Fuel Systems	12.0
AUTO 80	Automotive Computers, Electronics, and Electrical Systems	12.0

AUTOMOTIVE TECHNICIAN CERTIFICATE (ENGINE PERFORMANCE, ENGINE REPAIR, ELECTRONICS [AUTO], DRIVE TRAIN, POLLUTION CONTROL, CHASSIS)

This certificate is obtained upon successful completion of Automotive Specialist I and II and provides the student excellent entry-level skills in a wide range of automotive repair fields.

Requirements
48.0 units minimum
(Successful completion of Specialist I and II)
All of the following must be completed:
These classes should be taken in the following order **Units**

AUTO 51	Automotive Engines and Drive Trains	12.0
AUTO 57	Brakes, Wheel Alignment, and Suspension	12.0
AUTO 79	Tune-up, Pollution Control, and Fuel Systems	12.0
AUTO 80	Automotive Computers, Electronics, and Electrical Systems	12.0

AUTOMOTIVE TRANSMISSION SPECIALIST CERTIFICATE

Requirements
12.0 units minimum
All of the following must be completed with a grade of "C" or better:
These classes should be taken in the following order **Units**

AUTO 55	Manual Transmission Overhaul	5.0
AUTO 56A	Electronic Computer Transmission Controls	2.0
AUTO 56	Automatic Transmission Overhaul	5.0

AUTOMOTIVE WINDOW TINTING TECHNICIAN CERTIFICATE

Requirements
8.0 units minimum
All of the following must be completed with a grade of "C" or better:
These classes should be taken in the following order **Units**

AUTO 94A	Automotive Window Tinting I	4.0
AUTO 94B	Automotive Window Tinting II	4.0

BASIC INSPECTION AREA SMOG TECHNICIAN CERTIFICATE

Requirements
14.0 units minimum
All of the following must be completed with a grade of "C" or better:
These classes can be taken in any order **Units**

AUTO 80	Automotive Computers, Electronics, and Electrical Systems	12.0
AUTO 83B	Basic Area California Clean Car Course	2.0

COLLISION REPAIR TECHNICIAN CERTIFICATE

Requirements
14.0 units minimum
All of the following must be completed with a grade of "C" or better:
These classes should be taken in the following order **Units**

AUTO 91A	Auto Body Repair I	4.0
AUTO 91B	Auto Body Repair II	5.0
AUTO 92	Auto body Damage Estimating I	1.0
AUTO 91L*	Automotive Auto Body Laboratory (2 times) any time after	2.0
WELD 58A	Gas Metal Arc Welding any time after AUTO 91A	2.0

*Note: AUTO 91L must be completed two times.

ENGINE MACHINIST SPECIALIST CERTIFICATE

Requirements
12.0 units minimum
All of the following must be completed with a grade of "C" or better:
These classes should be taken in the following order **Units**

AUTO 52	Cylinder Head Specialist	4.0
AUTO 53	Cylinder Block Specialist	4.0
AUTO 54	Cylinder Assembly Specialist	4.0

ENHANCED INSPECTION AREA SMOG TECHNICIAN CERTIFICATE

Requirements
13.5 units minimum
All of the following must be completed with a grade of "C" or better:
These classes can be taken in any order **Units**

AUTO 80	Automotive Computers, Electronics and Electrical Systems	12.0
AUTO 84	Advanced California Clean Air Car Course	1.5

HEAVY DUTY DIESEL TRUCK LUBRICATION AND INSPECTION SPECIALIST CERTIFICATE

Requirements
4.0 units minimum
All of the following must be completed with a grade of "C" or better:
Units

AUTO 65	Heavy Duty Diesel Truck Lubrication and Inspection Technician	4.0

MOTORCYCLE REPAIR TECHNICIAN CERTIFICATE

Requirements
16.0 units minimum
All of the following must be completed with a grade of "C" or better:
These classes should be taken in the following order **Units**

AUTO 71	Motorcycle Engine Repair	4.0
AUTO 73	Motorcycle Tune Up and Maintenance	4.0
AUTO 75	Motorcycle Electrical and Ignition System Repair	4.0
AUTO 74	Motorcycle Fuel and Emission System Repair	4.0

RECREATIONAL VEHICLE SERVICE AND REPAIR TECHNICIAN CERTIFICATE

Requirements
17.0 units minimum
All of the following must be completed with a grade of "C" or better:
These classes should be taken in the following order **Units**

AUTO 91A	Auto Body Repair I	4.0
AUTO 85B	Automotive Electrical/Electronic Systems	1.0
CTMF 126A	Woodworking any time after AUTO 91A	3.0
CT 122A	Heating and Air Conditioning any time after AUTO 91A	4.0
CTMT 122	Electrical Repair	3.0
WELD 50	Introduction to Welding any time after AUTO 91A	2.0

SMALL ENGINE REPAIR SPECIALIST CERTIFICATE

Requirements
3.0 units minimum
All of the following must be completed with a grade of "C" or better:
Units

AUTO 70	Small Engine Repair	3.0

Associate Degree

To earn an Associate in Science degree with a major in Automotive Technology, complete a minimum of 18 units from any of the above certificates or from any Automotive Technology courses and meet all Victor Valley College graduation requirements. AUTO 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer

Not a transfer major.

BASIC SKILLS

The Basic Skills program consists of ten one-credit courses in reading, writing, and math. These courses assist students in improving their pre-college skills before enrolling in college-level classes. The courses feature individualized instruction from instructors and tutors as well as use of current technology.

Students registering for any of these courses receive instruction through computer assignments, traditional handwritten assignments and attendance at a series of lectures (workshops) on both English and math topics. Basic skills instructors and tutors are available to help students in the Basic Skills Lab during lab hours.

The courses offered by the Basic Skills Program are part of VVC's learning assistance or developmental education program, which is continued within the English and Mathematics departments. One of the goals of the Basic Skills Program is to assist students in using skills and strategies to become confident and independent learners.

The Basic Skills courses allow students to:

- adjust to the college learning environment
- review essential skills as in reading, writing, and basic mathematics
- apply self-discipline, time-management, and study skills
- successfully prepare themselves to meet VVC's academic standards in college level classes, and
- acquaint themselves with the diversity and seriousness of academic work available at VVC

The Basic Skills courses do not apply to the Associate Degree.

BIOLOGICAL SCIENCE

The biological science courses are designed to meet a variety of student requirements. Some courses are designed to fulfill the laboratory general education requirement.

Biology and preprofessional majors will find rigorous, comprehensive classes. Other classes, including non-laboratory, are offered for non-majors and those with special interest areas. A certificate in Biotechnology is also offered. For course descriptions, see Section IX of this catalog.

Career Opportunities

(May require advanced degree)
Environmental Analyst
Forestry
Laboratory Technician
Range Management

Faculty

Full Time
Ken Garver
Lisa Harvey
Hinrich Kaiser
Pam MacKay
Melody Ricci
Ken Walker

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts
Associate in Science, Math/Science
Certificate in Biotechnology

Certificate Program

CERTIFICATE IN BIOTECHNOLOGY

The certificate in Biotechnology is geared towards students interested in gaining entry level jobs in the laboratory, and can apply to the many different areas within the biotechnology industry such as clinical, forensic, or agricultural applications. Students pursuing this certificate will gain a basic biological foundation (BIOL 100 or 107), followed by an overview of the Biotechnology profession (BIOL 70) along with classes instructing technique (BIOL 71) and application of skills.

Requirements
16.0 units minimum
Group 1 - All of the following must be completed:

		Units
BIOL 100 or 107	General or Human Biology	4.0
BIOL 70	Introduction to Biotechnology	5.0
BIOL 71	Introduction to Laboratory Technique	4.0

AND
Group II - Complete 3.0 units from courses below:

BIOL 72/ CHEM 72	Biomolecular Science	3.0
BIOL 52	Forensic Entomology	3.0
BIOL 54	Forensic Pathology	3.0
ANTH 53	Forensic Anthropology	3.0
AGNR 122	Plant Propagation	3.0
AGNR 71	GIS in Natural Resources	3.0
BIOL 129	Independent Study in Biology	1.0-3.0
BIOL 98	Projects in Biology	1.0-3.0

Associate Degree

No associate degree offered with a major in Biological Science. Biology courses may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science. Biology courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Math/Science or Liberal Arts for degree requirements for these majors. BIOL 138 (Cooperative Education) may be used as Elective credit but may not be used to fulfill major requirements.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Biology major
BIOL 201, 202, 203, CHEM 201, 202, 281+282, MATH 226
One group from following:
PHYS 221 + 222 or PHYS 201, 202, 203 + H204
BS: Optional: Add CHEM 255
CSU General Education-Breadth Requirements

University of California, Riverside
Biology major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information
IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required. See counselor for general education requirements for College of Natural and Agricultural Sciences.

BUSINESS

Degrees and Certificates Awarded

Associate in Science, Business

Associate Degree

Students may earn an Associate in Science degree with a major in general Business by completing a minimum of 18 units from any certificate offered in the departments of Business Administration, Business Education Technologies, and Business Real Estate and Escrow or from a blend of courses from any of these departments or certificates.

The minimum 18 units for the general Business major may come from the following:

ALDH 139, 80, 81, 82
CIS 101, 52, 61
ECON 101, 102
MATH 105, 120
Any Business Administration course, except BADM 138
Any Business Education Technology course, except BET 138
Any Business Escrow course, except BESC 138
Any Business Real Estate course, except BRE 138

Students are encouraged to major in Business Administration, Business Education Technologies, or Business Real Estate and Escrow rather than general Business when possible to assure a stronger curriculum base.

Transfer

See Business Administration or Business Education Technologies for transfer requirements.

BUSINESS ADMINISTRATION

The Business Administration Department offers a variety of courses in business which allows a student to comply with the lower-division requirements for transfer to university level programs. Courses are also offered which allow the student to prepare for career entry-level positions and for upgrading of job skills for the already career-oriented student.

The department offers two certificates: a Management Certificate and Bookkeeping I Certificate. The Certificates are designed for those students interested in entering the field of business or for those who are currently working and would like to upgrade their business skills. Students completing the Management Certificate will have entry-level management knowledge and skills. Students completing the Bookkeeping I Certificate will have entry-level bookkeeping/accounting clerk skills. These certificates will also indicate that the student has completed a series of courses for skill upgrading for those already employed.

In addition to the certificates, students may also earn an Associate of Science Degree in Business Administration. Many of the Business Administration Department courses are offered online via the Internet, allowing a student to earn the Management Certificate and/or the AS Degree through distance eduction. See the current Schedule of Classes for a listing of online classes.

Those students planning to transfer to an upper-division institution should select their courses with the assistance of a counselor since each transfer institution has unique requirements. For course descriptions, see Section IX of this catalog.

Career Opportunities

Positions from entry-level to mid-management may be reasonable expectations upon completion of either the Degree or the Certificate programs in the fields of retailing, merchandising, service-related businesses, bookkeeping, and manufacturing firms. Some possible position titles include:

Accounting Clerk/Bookkeeper
Administrative Assistant
Department Manager
Human Resource Manager
Marketing Manager
Merchandise Buyer
Merchandise Manager
Office Manager
Purchasing Management
Salesperson
Store Manager

Faculty

Full Time
Peter Allan
David Hollomon
O. Odell Moon
Henry Young

Degrees and Certificates Awarded

Associate in Science, Business Administration
Bookkeeping I Certificate
Management Certificate

Certificate Programs

BOOKKEEPING I CERTIFICATE

The Bookkeeping I Certificate is designed to give the student entry-level skills as an accounting clerk or bookkeeper. These skills include the ability to sort, record, and file accounting data, as well as perform general accounting tasks and assist in the processes of summarizing and analyzing accounting information, both manually and using a computerized accounting program.

Requirements
16.0 units minimum
All of the following must be completed:

		Units
BADM 106	Accounting on Microcomputers I	2.0
BADM 107	Accounting on Microcomputers II	2.0
BADM 100	Introduction to Business Organization	3.0
BADM 142	Business Mathematics	3.0
BADM 50	Applied Accounting I	3.0
BADM 51	Applied Accounting II	3.0

MANAGEMENT CERTIFICATE

Upon completion, the Management Certificate will give the student basic skills and education to become an entry-level manager in retailing, merchandising, service-related businesses, and manufacturing firms.

Requirements
31.0 units minimum
Group I - All of the following must be completed:

		Units
BADM l01	Elementary Accounting	4.0
OR		
BADM 103	Financial Accounting	3.0
BADM 110	Principles of Management	3.0
BADM 117	Legal Environment of Business	3.0
BADM 100	Introduction to Business Organizations	3.0
BADM 142	Business Mathematics	3.0
BADM 144	Business Communications	3.0
CIS 101	Computer Literacy	4.0

Group II - One of the following must be completed:

BADM 112	Introduction to Marketing	3.0
BADM 122	Small Business Management	3.0

Group III - One of the following must be completed:

ECON 101	Principles of Economics [Macro]	3.0
ECON 102	Principles of Economics [Micro]	3.0

Group IV - One of the following must be completed:

BADM 109	Human Resource Management	3.0
BADM 111	Introduction to Public Administration	3.0
BADM 116	Human Relations in Business	3.0
BADM 52	Elements of Supervision	3.0

Associate Degree

To earn an Associate in Science degree with a major in Business Administration, complete a minimum of 18 units from any of the certificate requirements above or from any Business Administration courses and meet all Victor Valley College graduation requirements. BADM 38 (Cooperative Education) may be used as Elective credit but may not be used to fulfill major requirements.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Administration major
BADM l01or 103 + 102 or 104, 117, ECON l01, 102, CIS 101, MATH 120
Contact a counselor for information on additional major coursework required in various concentrations.

University of California, Riverside
Business Administration major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
Completion of IGETC recommended.

Azusa Pacific University, Victorville
Organizational Leadership major
(See **Table B** in Section VII of this catalog.)

Chapman University, Victorville
Organizational Leadership major
(See **Table C** in Section VII of this catalog.)

Southern Illinois University, Riverside
Workforce Education and Development (corporate training) major
(See **Table D** in Section VII of this catalog.)

BUSINESS EDUCATION TECHNOLOGIES

The study of Business Education Technologies is designed to prepare students for a variety of careers in high-tech business offices. Transfer level courses are available for students preparing for a bachelor's degree. Certificates of Achievement and the Associate in Science degree are awarded.

Career Opportunities

Administrative Assistant
Data Entry
Desktop Publishing
Executive Secretary
General Clerk
Office Manager
Receptionist

Stenographer
Teacher
Typist
Transcription Machine Operator

Faculty

Full Time
Barbara Becker
Becky Palmer

Degrees and Certificates Awarded

Associate in Science, Business Education Technologies
Administrative Assistant Certificate
Computer Systems I Certificate
Computer Systems II Certificate
Data Typist Certificate
Legal Office Certificate
Medical Office Certificate
Office Services Certificate
Spreadsheet Processor Certificate
Word Processor Certificate

Certificate Programs

ADMINISTRATIVE ASSISTANT CERTIFICATE

This curriculum is designed to prepare students for employment in business/industry/government for higher-level executives. Duties include office supervision, word processing, maintaining office records, and accounts.

Requirements
29.0 units minimum (Group I: 23 units, Group II: 6 units)

Group I - All of the following must be completed:

		Units
BADM 106	Accounting on Microcomputers	2.0
BET 107A	Internet Level I	1.0
BET 124	Records Management	2.0
BET 136	Career Applications for Word Processing	3.0
BET 141A	Operating System:Windows (1.0)	1.0
BET 142	Electronic Office Procedures and Administration (3.0)	3.0
BET 74	Office Machine Calculations (2.0)	2.0

*3 units must be chosen from **one** of the following:* 3.0
BET 103A,B,C Beginning Word Processing/Typing WordPerfect for Windows (3.0)
BET 104A,B,C Beginning Word Processing/Typing Word for Windows (3.0)

*3 units must be chosen from **one** of the following:* 3.0
BET 65 Speedwriting (3.0)
BET 66 Speedwritng\Shorthand Development and Review (3.0)

*3 units must be chosen from **one** of the following:* 3.0
BET 143 Business English (3.0)
BET 68 Proofreading A/B/C (3.0)

Group II - 6 units of the following must be completed: 6.0
1-3 units may be chosen from:
ECON 101 Principles of Economics [Macro] (3.0)
BADM 110 Business Management (3.0)
BET 135 Desktop Publishing: PageMaker (2.0)
BET 141B, C Operating System: Windows (1.0-2.0)
BET 77 Speed and Accuracy Development (2.0)

1 unit may be chosen from:
BET 103D Beginning Word Processing/Typing: WordPerfect for Windows D (1.0)
BET 104D Beginning Word Processing/Typing: Word for Windows (1.0)

1 unit may be chosen from:
BET 112A Spreadsheet: Excel for Windows (1.0)

*3 units may be chosen from **one** of the following:*
BADM 144 Business Communications (3.0)
BET 145 Communications for Business (3.0)

COMPUTER SYSTEMS I CERTIFICATE

This curriculum is designed to prepare students for entry-level word processing positions.

Requirements:
7.0 units minimum (Group I: 3 units, Group II: 4 units)

*Group I - 3 units from **one** of the following must be completed:* 3.0 **Units**
BET 103A, B, C Beginning Word Processing/Typing: WordPerfect for Windows (3.0)
BET 104A, B, C Beginning Word Processing/Typing: Word for Windows (3.0)

Group II - 4 units of the following must be completed: 4.0
1-3 units may be completed from:
BET 107A Internet Level I (1.0)
BET 123T Machine Transcription (1.0)
BET 136 Career Applications for Word Processing (3.0)
1 unit may be chosen from:
BET 112A Spreadsheet: Excel for Windows (1.0)
*3 units may be chosen from **one** of the following:*
BET 143 Business English (3.0)
BET 68 Proofreading A/B/C (3.0)

COMPUTER SYSTEMS II CERTIFICATE

This curriculum is designed to prepare students for the modern computer office. It includes instruction in the most popular business software.

Requirements
14.0 units minimum
All of the following must be completed:

		Units
BET 107A	Internet Level I	1.0
BET 112A,B	Spreadsheet: Excel for Windows	2.0
BET 136	Career Applications for Word Processing	3.0
BET 141A	Operating System: Windows	1.0

*3 units must be chosen from **one** of the following:*		3.0
BET 103A, B, C	Beginning Word Processing/Typing: WordPerfect for Windows (3.0)	
BET 104A, B, C	Beginning Word Processing/Typing: Word for Windows (3.0)	
1-3 units must be chosen from the following:		1.0
BET 118A	DataBase: Access (1.0)	
CIS 280	Fundamentals of Database Management Systems (3.0)	
*3 units must be chosen from **one** of the following:*		3.0
BET 143	Business English (3.0)	
BET 68	Proofreading A/B/C (3.0)	

DATA TYPIST CERTIFICATE

This curriculum is designed to prepare students for entry-level positions as a data entry operator. Duties for this position include general clerical tasks, data entry, and word processing.

Requirements
16.0 units minimum
Group I - All of the following must be completed:

		Units
BET 136	Career Applications for Word Processing	3.0
BET 68A	Proofreading	1.0
BET 74	Office Machine Calculations	2.0
*3 units must be chosen from **one** of the following:*		3.0
BET 103A,B,C	Beginning Word Processing/Typing: WordPerfect for Windows (3.0)	
BET 104A,B,C	Beginning Word Processing/Typing: Word for Windows (3.0)	

Group II - 7 units of the following must be completed:		7.0
1-3 units may be chosen from:		
BET 107A	Internet Level I (1.0)	
BET 123T	Machine Transcription (1.0)	
BET 134	Condensed Word Processing (1.0)	
BET 135	Desktop Publishing: PageMaker (2.0)	
BET 141A	Operating System: Windows (1.0)	
BET 77	Speed and Accuracy Development (2.0)	
1 unit may be chosen from:		
BET 112A	Spreadsheet: Excel for Windows (1.0)	
*3 units may be chosen from **one** of the following:*		
BADM 144	Business Communications (3.0)	
BET 145	Communications for Business (3.0)	
1-3 units may be chosen from:		
BET 143	Business English (3.0)	
BET 68	Proofreading A/B/C (1.0-3.0)	
1-3 units may be chosen from:		
BET 118A	DataBase: Access (1.0)	
CIS 280	Fundamentals of Database Management Systems (3.0)	

LEGAL OFFICE CERTIFICATE

This curriculum is designed to prepare students to become a productive secretary in a modern legal office. Duties include maintaining records, word processing, transcription, and general legal office tasks.

Requirements
29.0 units minimum
All of the following must be completed:

		Units
BADM 117	Legal Environment of Business	3.0
BET 123L	Machine Transcription-Legal	3.0
BET 124	Records Management	2.0
BET 136	Career Applications for Word Processing	3.0
BET 141A	Operating System: Windows	1.0
BET 142	Electronic Office Procedures and Administration	3.0
BET 74	Office Machine Calculations	2.0

*3 units must be chosen from **one** of the following:*		3.0
BET 103A,B,C	Beginning Word Processing/Typing: WordPerfect for Windows (3.0)	
BET 104A ,B,C	Beginning Word Processing/Typing: Word for Windows (3.0)	
*3 units must be chosen from **one** of the following:*		3.0
BET 65	Speedwriting (3.0)	
BET 66	Speedwriting/Shorthand Development and Review (3.0)	

*3 units must be chosen from **one** of the following:*		3.0
BET 143	Business English (3.0)	
BET 68	Proofreading A/B/C (3.0)	

*3 units must be chosen from **one** of the following:*		3.0
BET 145	Communications for Business (3.0)	
BADM 144	Business Communications (3.0)	

MEDICAL OFFICE CERTIFICATE

This curriculum is designed to prepare students to effectively carry out front medical office functions. Administrative duties include scheduling and receiving patients, maintaining medical records, office accounts, insurance forms, and transcription. See *Medical Assistant* for a program which includes both front and back office preparation and a clinical component.

Requirements
30.0 units minimum
All of the following must be completed:

		Units
BET 123M	Machine Transcription-Medical	3.0
BET 124	Records Management	2.0
BET 136	Career Applications for Word Processing	3.0
BET 141A	Operating System: Windows	1.0
BET 142	Electronic Office Procedures and Administration	3.0
ALDH 139	Medical Terminology	3.0
ALDH 80	Pharmacology	3.0
ALDH 81	Medical Insurance	3.0
ALDH 82	Medical Office Procedures	3.0

*3 units must be chosen from **one** of the following:*		3.0
BET 103A,B,C	Beginning Word Processing/Typing: WordPerfect for Windows (3.0)	
BET 104A,B,C	Beginning Word Processing/Typing: Word for Windows (3.0)	
*3 units must be chosen from **one** of the following:*		3.0
BET 143	Business English (3.0)	
BET 68	Proofreading A/B/C (1.0-3.0)	

OFFICE SERVICES CERTIFICATE

This curriculum is designed to prepare students for entry-level positions in the clerical field and as a receptionist. Entry-level duties include general clerical tasks, filing, and word processing.

Requirements
11.0 units minimum (Group I: 5 units, Group II: 6 units)

		Units
Group I - 5 units of the following must be completed:		5.0
BET 124	Records Management (2.0)	
BET 136	Career Applications for Word Processing (3.0)	
*3 units must be chosen from **one** of the following:*		3.0
BET 103A B,C	Beginning Word Processing/Typing: WordPerfect for Windows (3.0)	
BET 104A,B,C	Beginning Word Processing/Typing: Word for Windows (3.0)	
Group II - 6 units of the following must be completed:		5.0
3 units may be chosen from:		
BET 107A	Internet Level I (1.0)	
BET 123T	Machine Transcription (1.0)	
BET 142	Electronic Office Procedures and Administration (3.0)	
BET 74	Office Machine Calculations (2.0)	
*3 units may be chosen from **one** of the following:*		
BADM 144	Business Communications (3.0)	
BET 145	Communications for Business (3.0)	
*3 units may be chosen from **one** of the following:*		
BET 65	Speedwriting (3.0)	
BET 66	Speedwriting/Shorthand Development and Review (3.0)	
*3 units may be chosen from **one** of the following:*		
BET 143	Business English (3.0)	
BET 68	Proofreading A/B/C (3.0)	

SPREADSHEET PROCESSOR CERTIFICATE

This curriculum is designed to prepare students for entry-level bookkeeping positions.

Requirements

2.0 units minimum		**Units**
BET 112A, B	Spreadsheet: Excel for Windows	2.0

WORD PROCESSOR CERTIFICATE

This curriculum is designed to prepare students for entry-level secretarial positions.

Requirements

3.0 units minimum		**Units**
*3 units must be chosen from **one** of the following:*		3.0
BET 103A,B,C	Beginning Word Processing/Typing: WordPerfect for Windows (3.0)	
BET 104A,B,C	Beginning Word Processing/Typing: Word for Windows (3.0)	

Associate Degree

To earn an Associate in Science degree with a major in Business Education Technologies, complete 18 units from any of the certificate requirements above or from any Business Education Technologies courses, and meet all Victor Valley College graduation requirements. BET 138 (Cooperative Education) may be used as Elective credit but may not be used to fulfill major requirements.

Transfer

Not usually a transfer major. Some Business Education Technologies courses transfer as Electives or fulfill subject credit requirements. If a student chooses to pursue a bachelor's degree in Business Administration, Business Education Technologies courses will not fulfill major requirements for transfer. See Business Administration for transfer requirements for this degree.

The following California universities offer a B.S. degree in Business Education for students who plan to teach business in grades 7-12:

California State University
Los Angeles
Northridge

For further transferable courses, it is recommended to meet with your Counselor.

BUSINESS REAL ESTATE AND ESCROW

This program is designed to provide the student with the comprehensive knowledge needed to enter or invest in the real estate industry. A progressively challenging course curriculum starts with the Principles class, learning the language of real estate. This is a state-mandated course for those testing for a real estate salesperson's license. From there an "investor" student might pursue the more difficult Finance, Law, or Appraisal courses. The certificate program provides a structured approach to the course work. The Advanced Business Real Estate Certificate includes all the courses and Electives necessary to take the state's Real Estate Broker's examination.

The single largest business transaction entered into by most people is the sale or purchase of a home or other real estate. Consequently, people often seek the professional opinions and assistance of real estate salespersons, brokers, and appraisers. These professionals are familiar with the various forms of financing available in any given market. They keep abreast of actions taken by their county or city planners and become familiar with the zoning laws, tax laws, and real estate and contract law in order to better serve their clients. Real estate agents and brokers are not limited to selling real estate for they can also manage or develop property.

The escrow program provides the student with the training necessary for the escrow industry. The student is introduced to the basic principles of escrow before moving to the more advanced case studies and practices of the industry. A series of real estate courses acquaints the student with real estate agent skills. Additionally, business courses in accounting, law, human relations, math, and investments complete the program and will give the student an understanding of the business community and the responsibilities within the escrow industry.

The escrow officer is a highly trained individual whose knowledge of real estate transfer for private businesses and estate settlement procedures is essential for the operation of an escrow office.

Career Opportunities

Banking
Developer
Escrow Officer
Escrow Secretary
Loan Broker/Salesman
Property Manager
Real Estate Appraiser
Real Estate Broker
Real Estate Lawyer
Real Estate Salesperson
Real Estate Secretary
Securities Broker
Title Insurance Representative

Faculty

Full Time
Chris Grover

Degrees and Certificates Awarded

Associate in Science, Business Real Estate and Escrow
Advanced Business Real Estate Certificate
Basic Business Real Estate Certificate
Business Real Estate Trainee Certificate
Business Real Estate Apprentice Certificate
Escrow Secretarial Services Certificate
Property Management Certificate
Real Estate Appraiser Certificate
Real Estate Escrow Certificate
Real Estate Marketing Certificate
Real Estate Secretarial Services Certificate

Certificate Programs

BUSINESS REAL ESTATE TRAINEE CERTIFICATE

California Real Estate Law requires that each prospective real estate licensee complete a college level course in Real Estate Principles to be eligible to sit for the California Real Estate Salesperson's exam. This certificate program provides the student with the course needed to comply with that law. This certificate, along with the successful completion of the California Real Estate Salesperson's exam enables the student to obtain employment as an 18-month conditional licensee with any employing real estate agency within the state of California.

Requirements
3.0 units minimum

		Units
BRE 100	Real Estate Principles	3.0

BUSINESS REAL ESTATE APPRENTICE CERTIFICATE

Requirements
9.0 units minimum
Group I - The following must be completed with a grade of "C" or better:

		Units
BRE 100	Real Estate Principles	3.0
BRE 101	Real Estate Practices	3.0

Group II- Any one of the following must be completed with a grade of "C" or better:

BRE 110	Legal Aspects of Real Estate I	3.0
BRE 120	Real Estate Appraisal	3.0
BRE 126	Real Estate Finance	3.0
BRE 127	Real Estate Office Management	3.0
BRE 129	Real Estate Economics	3.0
BRE 140	Real Property Management	3.0
BESC 141	Escrow 1	3.0

BASIC BUSINESS REAL ESTATE CERTIFICATE

This Certificate program thoroughly prepares the student to become a professional real estate salesperson in the state of California.

Requirements
18.0 units minimum
Group I - All of the following must be completed:

		Units
BRE 100	Real Estate Principles	3.0
BRE 110	Legal Aspects of Real Estate I	3.0
BRE 120	Real Estate Appraisal	3.0
BRE 126	Real Estate Finance	3.0
BRE 142	Real Estate Marketing	3.0

Group II - Either one of the following must be completed:

BRE 101	Real Estate Practices	3.0
BADM 103	Financial Accounting	3.0

ADVANCED BUSINESS REAL ESTATE CERTIFICATE

This Certificate program builds upon the "Basic" Certificate and thoroughly prepares the student who wishes to test for the real estate broker's license and go on to open and operate a professional real estate business.

Requirements
27.0 units minimum
Group I - All of the following must be completed:

		Units
BRE 100	Real Estate Principles	3.0
BRE 101	Real Estate Practices	3.0
BRE 110	Legal Aspects of Real Estate I	3.0
BRE 120	Real Estate Appraisal	3.0
BRE 121	Advanced Real Estate Appraisal: Income Property	3.0
BRE 126	Real Estate Finance	3.0
BRE 129	Real Estate Economics	3.0
OR		
BADM 101	Elementary Accounting	4.0
OR		
BADM 103	Financial Accounting	3.0

Group II- Any two of the following must be completed:

BADM 117	Legal Environment of Business	3.0
BESC 141	Escrow 1	3.0
BESC 142	Escrow 2	3.0
BRE 111	Legal Aspects of Real Estate II	3.0
BRE 125	Taxes and Real Estate Investment	3.0
BRE 127	Real Estate Office Management	3.0
BRE 140	Real Property Management	3.0
BRE 142	Real Estate Marketing	3.0

PROPERTY MANAGEMENT CERTIFICATE

The Certificate program thoroughly prepares future property managers by examining the principles of real estate, accounting, office and property management and the computer applications necessary for efficient property management.

Requirements
21.0 units minimum
Group I - All of the following must be completed:

		Units
BRE 100	Real Estate Principles	3.0
BRE 120	Real Estate Appraisal	3.0
BRE 140	Real Property Management	3.0
BADM 103	Financial Accounting	3.0
BADM 110	Business Management	3.0

Group II - Any two of the following must be completed:

BRE 101	Real Estate Practices	3.0
BRE 127	Real Estate Office Administration	3.0

REAL ESTATE APPRAISER CERTIFICATE

When completed, the Certificate program will give the student the basic skills and education necessary to become a real estate appraiser.

Requirements
21.0 units minimum
Group I - All of the following must be completed:

		Units
BRE 100	Real Estate Principles	3.0
BRE 120	Real Estate Appraisal	3.0
BRE 121	Advanced Real Estate Appraisal: Income Property	3.0
BRE 125	Taxes and Real Estate Investment	3.0
BRE 129	Real Estate Economics	3.0

Group II - Any two of the following must be completed:

BRE 126	Real Estate Finance	3.0
BESC 141	Escrow I	3.0
BET 104	Beginning Word Processing/Typing: Word for Windows A/B/C	3.0

ESCROW SECRETARIAL SERVICES CERTIFICATE

The Certificate program will prepare the student for secretarial services within an escrow office by enhancing the practical knowledge of escrow operations and introducing computer applications in spreadsheets, database and word processing.

Requirements
21.0 units minimum
Group I - All of the following must be completed:

		Units
BRE 100	Real Estate Principles	3.0
BRE 101	Real Estate Practices	3.0
BRE 110	Legal Aspects of Real Estate I	3.0
BESC 141	Escrow 1	3.0
BESC 142	Escrow 2	3.0

Group II - Any two of the following must be completed:

BESC 143	Escrow 3	3.0
BET 104	Beginning Word Processing/Typing: Word for Windows A/B/C	3.0
BET 112	Spreadsheet: Excel for Windows A/B/C	3.0

REAL ESTATE SECRETARIAL SERVICES CERTIFICATE

The Certificate program will prepare the student for secretarial services within a real estate office by enhancing the practical knowledge of real estate and introducing computer applications in spreadsheets, database, and word processing.

Requirements
21.0 units minimum
Group I - All of the following must be completed:

		Units
BRE 100	Real Estate Principles	3.0
BRE 101	Real Estate Practices	3.0
BRE 110	Legal Aspects of Real Estate I	3.0
BESC 141	Escrow I	3.0
BET 65	Speedwriting	3.0

Group II - Any two of the following must be completed:

BRE 127	Real Estate Office Administration	3.0
BET 104	Beginning Word Processing/Typing: Word for Windows A/B/C	3.0
BET 112	Spreadsheet: Excel for Windows A/B/C	3.0

REAL ESTATE ESCROW CERTIFICATE

Requirements
24.0 units minimum
Group I - All of the following must be completed:

		Units
BESC 141	Escrow I, Principles (Basic)	3.0
BESC 142	Escrow II, Principles (Advanced)	3.0
BADM 117	Legal Environment of Business	3.0
BRE 100	Real Estate Principles	3.0
BRE 110	Legal Aspects of Real Estate I	3.0
BRE 126	Real Estate Finance	3.0

Group II - Two of the following must be completed:

BADM 101	Elementary Accounting	4.0
BADM 103	Financial Accounting	3.0
BADM 109	Human Resource Management	3.0
BADM 116	Human Relations in Business	3.0
BADM 142	Business Mathematics	3.0
BADM 144	Business Communications	3.0
BESC 143	Escrow III, Case Problems	3.0
BRE 101	Real Estate Practices	3.0
BRE 120	Real Estate Appraisal	3.0
BRE 125	Taxes and Real Estate Investment	3.0

REAL ESTATE MARKETING CERTIFICATE

This Certificate program prepares those interested in professionally marketing real estate by examining the elements which bring buyers and sellers together.

Requirements
24.0 units minimum
Group I - All of the following must be completed:

		Units
BRE 100	Real Estate Principles	3.0
BRE 126	Real Estate Finance	3.0
BRE 129	Real Estate Economics	3.0
BRE 142	Real Estate Marketing	3.0
BADM 112	Introduction to Marketing	3.0
BADM 116	Human Relations in Business	3.0

Group II - Any two of the following must be completed:

BADM 114	Sales	3.0
BRE 125	Taxes and Real Estate Investment	3.0
BADM 144	Business Communications	3.0

Associate Degree

To earn an Associate in Science degree with a major in Business Real Estate and Escrow, complete a minimum of 18 units from any of the certificate requirements above or from any Business Escrow or Business Real Estate courses, and meet all Victor Valley College graduation requirements. BESC 138 (Cooperative Education) and BRE 138 (Cooperative Education) may be used as Elective credit but may not be used to fulfill major requirements.

Transfer

Not usually a transfer degree. Many Business Escrow and Business Real Estate courses transfer as Electives or fulfill subject credit requirements. Students in this program often choose to pursue a bachelor's degree in Business Administration. See Business Administration for transfer requirements.

CAREER DEVELOPMENT

Seeking and applying for employment are stressful activities. Career Development courses are designed to assist students in seeking and applying for their choice of meaningful employment and to be good at being new on the job. These short-term courses are designed for the student looking for his/her first job as well as those intending to make a job or career change. See Career Development course listings in Section IX for topics and descriptions.

CHEMISTRY

Chemistry is a central science. It is an integral part of biological, geological, medical and environmental sciences. Every sight, sound, touch, smell, taste, and even thought is a result of chemical processes. An understanding of chemistry helps to make sound decisions in our increasingly technological society.

Courses for non-majors are offered in addition to the rigorous sequence designed for majors and transfer students. For course descriptions, see Section IX of this catalog.

Career Opportunities

Agricultural Technician
Analytical Chemist
Biochemist
Synthetic Organic Chemist
Environmental Chemist and Attorney
Geochemist
Chemical Engineer
Materials Scientist
Pharmaceutical Technician
Laboratory Technician
Science Teacher
Technical Salesperson

Faculty

Full Time
Thomas Basiri
Phrosene Chimiklis
Thomas Kennedy

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts
Associate in Science, Math/Science

Certificate Program

No certificate awarded.

Associate Degree

No associate degree is offered with a major in Chemistry. Chemistry courses may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science. See Math/Science for degree requirements for this major. Chemistry courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. CHEM 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Chemistry major
BA: CHEM 201, 202, 255, MATH 226 + 227
One group from the following: PHYS 221 + 22B or
PHYS 201, 202, 203, H204
One course from the following: BIOL 201, 100
Optional: CHEM 281+282
BS (ACS Certified Option): CHEM 201, 202, 255,
MATH 226 + 227, 231, PHYS 201, 202, 203, H204
Optional: One course from the following: MATH 228, 270
Biochemistry major
BA: BIOL 201 + 202+ 203,CHEM 201, 202, 255,
MATH 226 + 227
Optional: One group from the following: PHYS 221 + 222 or
PHYS 201, 202, 203 + H204
BS: BIOL 201 + 202 + 203, CHEM 201, 202, 255,
MATH 226 + 227
One group from the following: PHYS 221 + 222
PHYS 201, 202, 203, H204
CSU General Education-Breadth Requirements

University of California, Riverside
Chemistry major & Biochemistry major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required. See counselor for general education requirements for College of Natural and Agricultural Sciences.

CHILD DEVELOPMENT

The Child Development program provides courses that prepare students to enter the field of early childhood education. Courses are designed to give students fundamental skills in working with children in a variety of settings, as well as a strong theoretical understanding of children's development. For course descriptions, see Section IX of this catalog.

Career Opportunities

Child Development Center Administrator
Child Development Center Teacher
Child Life Specialist
Early Childhood Education Specialist
Elementary School Teacher
Family Child Care Provider
Juvenile Worker
Nanny
Recreation Department Programs
Social Worker
Special Education
Therapist
Tutor

Faculty

Full Time
Mary Sypkens
Sandy Visser
Joanne Eccleston, Emeritus

Degrees and Certificates Awarded

Associate in Science, Child Development
Principles of Early Childhood Education Certificate
- Level I: Associate Teacher
- Level II: Teacher
- Level III: Supervisor
- Family Child Care

Licensing Requirements

Title 5: Students who desire to teach in publicly-funded programs such as Head Start or State Preschool must obtain a Child Development Permit which is issued by the State of California Commission on Teacher Credentialing. Where as the CDD offers courses that meet the education requirement of the permit, the employing agency will assist students in obtaining this permit. Under Title 5 regulations, Child Development Permits are required for the following positions: Assistant, Associate Teacher, Teacher, Master Teacher, Site Supervisor, and Program Director.

Title 22: The Child Development Department offers courses that prepare students for employment in early childhood programs that are licensed by the Department of Social Services under Title 22 regulations (e.g., church sponsored, for profit centers, other privately-funded programs). It is recommended that students complete the following courses as these fulfill the mandated requirements set forth by the Department of Social Services to become a fully qualified preschool teacher. Students' transcripts serve as verification of completion of required course work.

Group I - Complete all of the following:		Units
CHDV 106	Child, Family, and Community	3.0
CHDV 146	Child Growth and Development	3.0

Group II - Choose 6 units from the following Program/Curriculum courses: 6.0

CHDV 127A*, CHDV 127B*, CHDV 132, CHDV 133, CHDV 134, CHDV 143, CHDV 144, CHDV 145

12.0

*Recommended for those students with no previous work experience in a center based program.

Certificate Programs

The Child Development Department offers a three-tiered certificate program preparing students for different levels of entry into the field.

PRINCIPLES OF EARLY CHILDHOOD EDUCATION CERTIFICATE LEVEL I: ASSOCIATE TEACHER (PRE SCHOOL)

Title 5: Completion of this certificate fulfills the required education units for Associate Teacher certification in Title 5 programs. Experience teaching in children's programs (50 days of 3+ hours per day within 2 years) is also required.

Title 22: Completion of this certificate fulfills the required education units for Teacher certification in Title 22 programs.

Requirements
21.0 units minimum
All of the following must be completed with a grade of "C" or better:

		Units
CHDV 106	Child, Family, and Community	3.0
CHDV 146	Child Growth and Development	3.0
CHDV 127A	Directed Teaching in Children's Program I	4.0
CHDV 127B	Directed Teaching in Children's Program II	4.0
ENGL 50	Writing Fundamentals	4.0
SPCH 106	Human Communication	3.0
OR		
SPCH 108*	Group Discussion	3.0
OR		
SPCH 109*	Public Speaking	3.0

All course work must be completed with a "C" or better.

*Recommended for students transferring to a four-year college or university. (Check with Counselor)

PRINCIPLES OF EARLY CHILDHOOD EDUCATION CERTIFICATE LEVEL II: TEACHER (PRE SCHOOL)

Title 5: Completion of this certificate fulfills the required education units for Teacher certification in Title 5 programs. Experience teaching in children's programs (175 days of 3+ hours per day within 4 years) is also required for Teacher certification.

Completion of Level I: Associate Teacher certificate requirements plus the following courses:

Group I - All of the following must be completed:

		Units
CHDV 142	Health/Safety and Nutrition	3.0
ENGL 101	English Composition and Reading	4.0
ALDH 102/ PE 102	Contemporary Problems in Personal and Community Health	3.0
OR		
BIOL 100*	General Biology	4.0
SPAN 125	Beginners Conversational Spanish	3.0
OR		
SPAN 101*	Elementary Spanish	5.0
OR		
SPCH 122	American Sign Language I	4.0
SOC 101	Introduction to Sociology	3.0
PSYC 108	Identifying and Helping Survivors of Dysfunctional Families	3.0
OR		
PSYC 110*	Developmental Psychology	3.0

Group II - Choose 11 units from the following:

CHDV 110	Introduction to Childhood Education	3.0
CHDV 111	Infant and Toddler Caregiving	3.0
CHDV 115	Family Day Care Provider	3.0
CHDV 132	Montessori Methods of Education	3.0

CHDV 133	Art Experiences for Young Children	3.0
CHDV 134	Language Experiences for Young Children	3.0
CHDV 137	The Child with Special Needs	3.0
CHDV 141	Basics of School-Aged Childcare	3.0
CHDV 143	Introduction to the High/Scope Curriculum	3.0
CHDV 144	Math and Science Experiences for Young Children	2.0
CHDV 145	Music and Movement Experiences for Young Children	2.0

All course work must be completed with a "C" or Better.

*Recommended for students transferring to a four-year college or university. (Check with Counselor)

PRINCIPLES OF EARLY CHILDHOOD EDUCATION CERTIFICATE LEVEL III: SUPERVISOR

Title 5: Completion of this certificate fulfills the required education units for Site Supervisor certification in Title 5 programs. Experience teaching and supervising in children's programs (teaching 350 days of 3+ hours per day within 4 years, including at least 100 days of supervising adults) is also required for Site Supervising certification.

Title 22: Completion of this certificate fulfills the required education units for Director in Title 22 programs. If the individual has an associate degree, two years of teaching experience in children's programs is also required for Director certification if the individual has an associate degree in Child Development or related field. If the individual does not have an associate degree, four years of teaching experience in children's programs is required.

Completion of Level II : Teacher certificate requirements plus the following courses:		**Units**
CHDV 220	The Mentor Teacher/Adult Supervisor	2.0
CHDV 239	Administration of Children's Programs I	3.0
CHDV 240	Administration of Children's Programs II	3.0
BADM 142	Business Mathematics	3.0
BET 143	Business English	3.0
OR		
BADM 144	Business Communications	3.0

All course work must be completed with a "C" or better.

The Child Development offers a fourth certificate for students working toward self-employment in the field.

FAMILY CHILD CARE CERTIFICATE

Completion of this certificate exceeds the licensing requirements for Family Child Care providers, including a variety of topics that are relevant for a provider running a child care business in the home. The certificate is designed to provide a balance of business, curriculum, and child development issues for a new or experienced family child care provider.

Requirements
22.0 units minimum

All of the following must be completed:		**Units**
CHDV 106	Child, Family, and Community	3.0
CHDV 111	Infant and Toddler Caregiving	3.0
CHDV 115	Family Child Care Provider	3.0
CHDV 127A	Directed Teaching in Children's Programs	4.0
CHDV 142	Health, Safety, and Nutrition	3.0
CHDV 146	Child Growth and Development	3.0
BADM 122	Small Business Management	3.0

All course work must be completed with a "C" or better.

Associate Degree

To earn an Associate in Science degree with a major in Child Development, complete CHDV 106, 127A and 146, plus a minimum of 8 other degree-applicable units in Child Development, and meet all Victor Valley College graduation requirements. CHDV 138 (Cooperative Education) may be used for Elective credit but may not be used to fulfill major requirements.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Human Development major
Child Development Track I (non-teaching emphasis):
BIOL 100, CHDV 146, 127A, PSYC 101, 110, SOC 101,
Optional: Add MATH 120, CHDV 127B
CSU General Education-Breadth Requirements

University of California, Riverside
Human Development major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
IGETC recommended

COMPUTER INFORMATION SYSTEMS

The Computer Information Systems (CIS) department provides training for those persons who plan to work within a technical, computer-centered environment. Because of the widespread use of computers in our society, employment opportunities are found in a multitude of different environments such as general business, communications industries, manufacturing, environmental engineering, education, medical technology, and banking and finance as well as computer information systems.

The program is specifically designed to provide the student with practical training which would be valuable and useful in the computer programming workplace. For course descriptions, see Section IX of this catalog.

Career Opportunities

Data Administrator
Data Entry Operator
Education Specialist
Technical Writer
Production Control Clerk
Technical Research Assistant
Microcomputer Technical Support
Programmer
Programming Librarian
Programmer/Analyst
Data Control Clerk
Documentation Clerk
User Support Specialist
Quality Control Specialist
Technical Support Specialist
Management Technical Assistant
Computer Operations Management
Systems Analyst
Computer Operator
Computer Training Specialist
Information Center Specialist
Web Master
Web Page Development
Network Specialist
Network Administrator
Network Support Specialist
Multimedia Specialist
Electronic Graphics Artist

Faculty

Full Time
Ed Burg
Reiji Cass
Robert Fedderson
Shane Thomas
Paul Tonning

Degrees and Certificates Awarded

Associate in Science, Computer Information Systems
Database Administration Certificate
MySQL Database Developer Certificate
NetWare Certificate
Network Specialist Certificate
Programming I Certificate
Programming II Certificate
Productivity Software Specialist Certificate
UNIX Administrator Certificate
Visual Basic Programming Certificate
Web Authoring Certificate

Certificate Programs

DATABASE ADMINISTRATION CERTIFICATE

The Database Administration Certificate prepares the student with a foundation for database administration using the Oracle® database software.

Requirements
18.0 units minimum
All of the following must be completed:

		Units
CIS 105	Introduction to Systems Analysis	3.0
CIS 280	Fundamentals of Database Management Systems	3.0
CIS 281	Database Management	4.0
CIS 287A	Structured Query Language A (SQL A)	2.0
CIS 287B	Structured Query Language B (SQL B)	2.0
CIS 288A	Oracle® A	2.0
CIS 288B	Oracle® B	2.0

MySQL DATABASE DEVELOPER CERTIFICATE

The MySQL Database Developer Certificate is a high quality certification process that will provide evidence that a qualifying individual has skill in developing production relational MySQL database applications. Be being certified, clients, customer, and employers are ensured that the database developer is competent and professional.

Requirements
11.0 units minimum
All of the following must be completed with a grade of "C" or better:

		Units
CIS 91A	MySQL Administration A	2.0
CIS 91B	MySQL Administration B	2.0
CIS 96A	Structured Query Language A using MySQL	2.0
CIS 96B	Structured Query Language B using MySQL	2.0
CIS 280	Fundamentals of Database Management Systems	3.0

NETWARE CERTIFICATE

Provides the student with training in the popular network environment of Novell NetWare.

Requirements
16.5 units minimum
All of the following must be completed:

		Units
CIS 101	Computer Literacy	4.0
CIS 252	Novell NetWare 6 Advanced Administration	2.5
CIS 67	Fundamentals of Networking	2.5
CIS 72	Novell NetWare 6 Basic Administration	2.5
CIS 77	NetWare Service and Support	2.5
CIS 79	NDS Design and Implementation	2.5

NETWORK SPECIALIST CERTIFICATE

This certificate program prepares the student to begin a career in the computer networking field and working and administering a variety of popular network platforms including UNIX, Microsoft and Novell.

Requirements
16.5 units minimum
All of the following must be completed:

		Units
CIS 123	Introduction to Operating Systems: UNIX	3.0
CIS 124	Fundamentals of Data Communication	2.0
CIS 139	Windows XP For Power Users	
OR		
CIS 240A	Windows 2000 Professional	4.0
CIS 240B	Intro to Microsoft Windows 2000 Server Administration	4.0
OR		
CIS 72	Novell NetWare 6 Basic Administration	1.5
& CIS 252	Novell 6 Advanced Administration	2.0
OR		
CIS 261	UNIX System Administration A	2.0
CIS 262	UNIX System Administration B	2.0
CIS 50	Computer Ethics	2.0
CIS 67	Fundamentals of Networking	2.0

PROGRAMMING I CERTIFICATE

This certificate trains the student to become a programmer with some of the most popular programming such as C and Visual BASIC.

Requirements
27.0 units minimum
All of the following must be completed:

		Units
CIS 101	Computer Literacy	4.0
OR		
CIS 103	Foundations of Computer Technology	4.0
CIS 105	Introduction to Systems Analysis	3.0
CIS 201	C++ Module A	4.0
CIS 202	C++ Module B	4.0
CIS 210	Visual BASIC Programming	4.0
OR		
CIS 206A	Java A	4.0
& CIS 206B	Java B	
CIS 50	Computer Ethics	2.0
CIS 64	Computer Mathematics	3.0
ENGL 112	Technical Writing	3.0
OR		
BADM 144	Business Communications	3.0

PROGRAMMING II CERTIFICATE

Completion of this certificate makes the student well versed in most popular programming languages and ready for business and highly technical software development.

Requirements
22.0 units minimum
All of the following must be completed:

		Units
CIS 104	Object-oriented Software Design	3.0
CIS 108	Assembly Language Programming	3.0
CIS 203	C++ Module C	4.0
CIS 211A/B/C	Advanced VB Programming A or B or C	4.0
OR		
CIS 206A	Java A	4.0
OR		
CIS 206B	Java B	
CIS 50	Computer Ethics	2.0
CIS 64	Computer Mathematics	3.0
ENGL 112	Technical Writing	3.0
OR		
BADM 144	Business Communications	3.0

PRODUCTIVITY SOFTWARE SPECIALIST CERTIFICATE

This certificate trains the student to become a well-rounded microcomputer user skilled in all the software that is common in business offices.

Requirements
25.0 units minimum
Group I - All of the following must be completed:

		Units
CIS 101	Computer Literacy	
OR		
CIS 103	Foundations of Computer Technology	4.0
CIS 280	Fundamentals of Database Management Systems	3.0
CIS 111	Multimedia Presentations	4.0
CIS 136	Introduction to Internet/WWW	2.0
CIS 139	Windows XP For Power Users	4.0
BET 112 A/B/C	Spreadsheet: Excel for Windows A/B/C	3.0
ENGL 112	Technical Writing	3.0
OR		
BADM 144	Business Communications	

Group II - 3 units of the following must be completed:		3.0
BET 103	Beginning Word Processing/Typing:	
A, B, C	WordPerfect for Windows (3.0)	
BET 104	Beginning Word Processing/Typing:	
A, B, C	Word for Windows (3.0)	
BADM 106	Accounting on Microcomputers (3.0)	
BADM 107	Accounting on Microcomputers (3.0)	

UNIX ADMINISTRATOR CERTIFICATE

The UNIX Administrator Certificate is a high quality certification process that will provide evidence that a qualifying individual has skill in designing, implementing and maintaining UNIX and Linux based networks. By being certified, clients, customers, and employers are ensured that the UNIX administrator is well equipped to handle the day-to-day operations associated with a UNIX based network as well as the unforeseen problems that tend to arise in any network.

Requirements
14.0 units minimum
All of the following must be completed with a grade of "C" or better:

		Units
CIS 50	Computer Ethics	2.0
CIS 90	Introduction to UNIX Operating System	4.0
CIS 93	PERL	2.0
CIS 261	UNIX System Administration A	2.0
CIS 262	UNIX System Administration B	2.0

VISUAL BASIC PROGRAMMING CERTIFICATE

This certificate program provides the student with solid, in-depth training in developing applications with Visual Basic, one of today's most widely used programming languages.

Requirements
16.0 units minimum
All of the following must be completed:

		Units
CIS 210	Introduction to Visual Basic Programming	4.0
CIS 211A	Advanced VB Programming A	4.0
CIS 211B	Advanced VB Programming B	4.0
CIS 211C	Advanced VB Programming C	4.0

WEB AUTHORING CERTIFICATE

This certificate provides the student solid training in developing web pages.

Requirements
14.0 units minimum
All of the following must be completed:

		Units
CIS 111	Multimedia Presentations	4.0
CIS 136	Introduction to Internet/WWW	2.0
CIS 137	Introduction to HTML	2.0
CIS 205	Client-Side Scripting	4.0
CIS 50	Computer Ethics	2.0

Associate Degree

To earn an Associate in Science degree with a major in Computer Information Systems, complete a minimum of 18 units from any of the certificate requirements above or from any Computer Information Systems courses and meet all Victor Valley College graduation requirements. CIS 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible: (Note that an alternative to the CIS transfer major that appeals to many students is Administration, with an emphasis in CIS. See Business Administration.)

For the most current information, visit www.assist.org.

California State University, San Bernardino
Computer Science major
CIS 201 + 202, MATH 226 + 227,
PHYS 201, 203, 202 + H204
One course from the following: BIOL 201, 100
One additional science course with lab from: BIOL, CHEM, GEOL, or PHYS
CSU General Education-Breadth Requirements

University of California, Riverside
Computer Science major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required. See counselor for general education requirements for College of Engineering.

COMPUTER INTEGRATED DESIGN AND GRAPHICS (CIDG)

Design Your Future

The Computer Integrated Design and Graphics (CIDG) at Victor Valley College is growing to keep pace with our High Desert community. We have many new and exciting courses, programs, and certificates to meet the needs of our students. Our focus is on designing courses and certificate programs that will provide students with the knowledge and skills to secure a job in a career field that has unlimited potential.

The newest program within our CIDG department is our Visual Communications and Graphic Arts program. This exciting program has seven new courses, two new certificates and a state-of-the-art computer lab consisting of 25 new Power Mac G4's, an industry quality plotter, printer and two scanners as well as the latest software used by professionals. We offer courses covering such software as the Adobe Suite of programs including Photoshop, Illustrator, Director and more. We also teach the Macromedia suite of software packages including Flash, Fireworks, and Dreamweaver for web page design.

The Computer Animation program has a new certificate that will help prepare students for entry-level positions in the Animation industry. Our Animation program covers such topics as character animation, working with color, texture, lighting, cameras, sound and 3D art. The primary software package

taught is Discreet 3ds max while additional software such as Character Studio and Adobe Photoshop are used to supplement the curriculum. A new crossover course, CIDG 64 3ds max Architectural Design has been developed for game designers and architects who want to create 3D architectural virtual walkthroughs using 3ds max.

The cornerstone of the department remains our Computer Aided Drafting & Design (CADD) program. There are five new certificates that have been designed to meet the needs of students new to the field of CADD and those experienced professionals looking to upgrade their software knowledge. A core certificate is offered for students with a limited knowledge of drafting, mathematics and blueprint reading. (Drafting Technician I) Two entry-level certificates are offered in the areas of CADD and Computer Animation. We have also included three specialized certificates in the areas of Architectural CADD, Geographic Information Systems (GIS) and Civil CADD.

Career Opportunities

Architect
Architectural Drafter
CAD Management
CAD Operator
Cabinet Shop Detailer
Civil Drafter
Computer Animator
Community College Instructor
Construction Technician
Desk-Top Publisher
Electrical Drafter
Electronics Drafter
GIS Technician
Graphics Designer
Interior Designer
Landscape Architect
Landscape Designer
Mapping Specialist
Mechanical Drafter
Public Works Technician
Rendering Specialist
Steel Fabricator Drafter
Structural Drafter
Technical Illustrator

Faculty

Full Time
Claude Oliver
Shuron Taylor
Gary Menser
Steve Nelle

Degrees and Certificates Awarded

Associate in Science, CIDG
Drafting Technician I Certificate
CADD I Technician
Architectural CADD Technician I Certificate
Civil CADD Technician I Certificate
Digital Animation Artist Certificate
Digital Animation Technician I Certificate - 3ds max
Geographic Information Systems (GIS) Certificate
Visual Communications Graphic Design Certificate
Visual Communications Print Production Certificate

Certificate Programs

DRAFTING TECHNICIAN I CERTIFICATE

Requirements
12.0 units minimum
Select a minimum of 6 units from Group I and 6 units from Group II
Group I -

		Units
CIDG 101	Introduction to Drafting	3.0
CIDG 103	Blueprint Reading for Construction	3.0
CIDG 104	Blueprint Reading for Industry	3.0
CT 105	Technical Sketching	3.0

Group II -

CT 107	Technical Mathematics	3.0
CT 108	Advanced Technical Math	3.0
MATH 90	Intermediate Algebra	4.0
MATH 104	Trigonometry	3.0

ARCHITECTURAL CADD (COMPUTER AIDED DESIGN AND DRAFTING) TECHNICIAN I CERTIFICATE

Requirements
9.0 units minimum
All of the following must be completed:

		Units
CIDG 103	Blueprint Reading for Construction	3.0
CIDG 250	Architectural Computer Aided Design I	3.0
CIDG 251	Architectural Computer Aided Design II	3.0

CADD (COMPUTER AIDED DESIGN AND DRAFTING) TECHNICIAN I CERTIFICATE

Requirements
9.0 units minimum
All of the following must be completed:

		Units
CIDG 110	Two Dimensional AutoCAD	3.0
CIDG 210	Advanced Two Dimensional AutoCAD	3.0
CIDG 120	Solids Modeling and Three Dimensional AutoCAD	3.0

CIVIL CADD (COMPUTER AIDED DESIGN AND DRAFTING) TECHNICIAN I CERTIFICATE

Requirements
9.0 units minimum
All of the following must be completed:

		Units
CIDG 230	Computer Aided Mapping I	3.0
CIDG 231	Computer Aided Mapping II	3.0
CIDG 280	Geographical Information System I (GIS)	3.0
OR		
AGNR 171	Introduction to Geographic Information Science	3.0

DIGITAL ANIMATION ARTIST CERTIFICATE

The new Digital animation Artist certificate is designed to expand an individual's knowledge in animation, giving them the traditional art principles and practices that will help them become a well-rounded animator. Employers often prefer computer animators who have the ability to draw and understand traditional art concepts and principles. By earning the Digital Animation Artist certificate, graduates will better position themselves of traditional art courses that include drawing and composition, life drawing and sculpture. An additional course specific to learning Adobe Photoshop is also required to earn certification.

Requirements
15.0 units minimum

Group I - Animation Track
Choose between software package options 1 or 2
All of the following must be completed with a grade of "C" or better.

Option 1:	**3ds max**	**Units**
CIDG 160	3ds max Fundamentals	3.0
CIDG 260	3ds max Advanced Modeling and Materials	3.0
CIDG 261	3ds max Advanced Animation and Effects	3.0
PHOT 52	Introduction to Photoshop	3.0

Option 2:	**SoftImage XSI**	
MERT 50	Principles of Animation	3.0
MERT 51	Intermediate Modeling and Animation with SoftImage XSI	3.0
MERT 52	Digital Character Animation	3.0
PHOT 52	Introduction to Photoshop	3.0

Group II - Art Track
Choose any ONE of the following courses.
Each course must be completed with a grade of "C" or better.

		Units
ART 101	Survey of Art History	3.0
ART 104	Film as an Art Form	3.0
ART 112	Design I	3.0
ART 113	Design II	3.0
ART 122	Survey of Art History	3.0
ART 124	Film as an Art Form	3.0
ART 125	Drawing and Composition	3.0
ART 141	Sculpture I	3.0

DIGITAL ANIMATION TECHNICIAN I - 3ds max CERTIFICATE

Requirements
9.0 units minimum
All of the following must be completed with a grade of "C" or better.

		Units
CIDG 160	3ds max Fundamentals	3.0
CIDG 260	3ds max Advanced Modeling and Materials	3.0
CIDG 260	3ds max Advanced Animation and Effects	3.0

GEOGRAPHICAL INFORMATION SYSTEMS CERTIFICATE

This certificate was recommended by the Computer Integrated Design and Graphics Advisory Committee to prepare the student for specialized employment in the vast fields of Geographic Information Systems. The curriculum is structured to provide the student with foundation skills to branch into many industry disciplines, i.e. mapping, utilities, forensics, government, geography, real estate to name a few.

Requirements
9.0 units minimum
All of the following must be completed:

		Units
AGNR 171	Introuduction to GIS	3.0
CIDG 280	GIS I	3.0
CIDG 281	GIS II	3.0

VISUAL COMMUNICATIONS CERTIFICATE - GRAPHIC DESIGN

Requirements
17.0 units minimum
All of the following must be completed with a grade of "C" or better:

		Units
CIDG 70	Design for Graphic Artists	3.0
CIDG 71	Survey of Computer Graphic Studio	4.0
CIDG 72	Computer Illustration	3.0
CIDG 73	Typography and Layout	3.0
CIDG 79	Multimedia and Web Design	4.0

VISUAL COMMUNICATIONS CERTIFICATE - PRINT PRODUCTION

Requirements
16.0 units minimum
All of the following must be completed with a grade of "C" or better:

		Units
CIDG 70	Design for Graphic Artists	3.0
CIDG 77	Print Production Processes	3.0
CIDG 73	Typography and Layout	3.0
CIDG 71	Survey of Computer Graphic Studio	4.0
CIDG 75	Page Layout and Design	3.0

Associate Degree
To earn an Associate in Science degree with a major in CIDG, complete a minimum of 18 units from any of the certificate requirements above or from any CIDG courses, and meet all Victor Valley College graduation requirements. CIDG 138 may be used as Elective credit but may not be used to fulfill major requirements.

Transfer
Not a transfer major. Most CIDG courses transfer as Electives or fulfill subject credit requirements. Some CIDG courses fulfill lower division requirements for a related major. Students in this program sometimes choose to pursue a bachelor's degree in Architecture or Engineering. See Architecture and Engineering for transfer requirements for these majors.

CONSTRUCTION AND MANUFACTURING TECHNOLOGY

The Construction Technology program provides preparation for a wide variety of positions in the construction field as a contractor, supervisor, building inspector or tradesperson. The program offers the opportunity to be self-employed and the pride and satisfaction of creating and building with your own hands.

Certificates of achievement can be earned in Construction Management, Building Construction, Building Inspection, Public Works, HVAC/R, Plumbing and Electrical & Residential Maintenance. The Associate in Science degree is awarded upon completion of 18 semester units in Construction Technology courses and the required general education and Elective courses. Transfer to the CSU system for a bachelor's degree in Industrial Technology is available. For course descriptions, see Section IX of this catalog.

Career Opportunities
Building Inspector
Cabinetmaker
Construction Accountant
Construction Estimator
Construction Insurance Agent
Construction Law Specialist
Construction Salesperson
Construction Supervisor
Contractor
Cement Mason
Civil Engineer
Electrician
Environmental Construction Specialist
Financial Specialist
Framer
Grader
Hazardous Materials Specialist
Heating and Air Conditioning Engineer
Job Foreman
Materials Engineer
Millwright
Metal Building Specialist
Painter
Plumber
Plasterer
Project Supervisor
Public Works Technician
Purchasing Agent
Safety Specialist
Soils Engineer
Surveyor
Tinsmith
Waste Water Specialist
Water Distribution System Specialist
Workmans Comp Specialist

Faculty
Full Time
Nord Embroden

Degrees and Certificates Awarded
Associate in Science, Construction Technology,
Construction Management Certificate
Construction Technology Certificate
Basic Electrical Technician
Basic Heating, Ventilation and Air Conditioning/ Refrigeration Certificate
Basic Residential Maintenance Technician Certificate
Basic Woodworking Certificate
Building Construction Certificate
Building Inspector Certificate
Plumbing Technician
Public Works Certificate
Renewable Energy Certificate

CONSTRUCTION TECHNOLOGY CERTIFICATE

Provides the core knowledge and skills that are common and fundamental to success in a wide variety of construction trades.

Requirements
19.5 units minimum
All of the following must be completed:

		Units
CT 101	Careers in Construction and Manufacturing	1.5
CT 105	Technical Sketching	3.0
CT 106	Materials of Construction	3.0
CT 107	Technical Math	3.0
CT 108	Advanced Technical Math	3.0
CT 116	Construction Safety	2.0
CT 131	Microcomputers in Construction	4.0
CIDG 103	Blueprint Reading for Construction	3.0

BUILDING CONSTRUCTION CERTIFICATE

Provides the basic knowledge and skills necessary for job opportunities in a wide variety of specific construction trades including masonry, finish carpentry, framing, construction sales, drywall, painting, plumbing, electrical, roofing, heating, ventilation and air conditioning, and surveying.

Requirements
Students must complete their Construction Technology Certificate plus all of the following:
18.0 units minimum
Group I - All of the following must be completed:

		Units
CT 132	Construction Estimation	3.0

Group II - Two of the following must be completed:

CT 120A	Electrical Wiring	4.0
CT 120B	Commercial Wiring	4.0
CT 121	Finish Carpentry	4.0
CT 122A	Heating and Air Conditioning	4.0
CT 122B	Commercial Refrigeration	4.0
CT 123	Surveying	4.0
CT 124	Plumbing	4.0
CT 125	Concrete and Masonry Construction	4.0
CT 127	Framing	4.0

Group III - 7 units of the following must be completed: 6.0

CT 138	Cooperative Education	1.0-6.0
CT 140	Construction Internship	4.0
CT 141	Construction Internship Laboratory	2.0-12.0
CT 148	Special Topics	1.0-6.0
CT 160A-D	Construction Laboratory	1.0-4.0

BUILDING INSPECTION CERTIFICATE

Provides a thorough background and skill level for employment in the building inspection field. This certificate prepares the student for employment in City and County Building and Safety departments as a private industry or corporate job site inspector.

Requirements
Students must complete their Construction Technology Certificate plus all of the following:
21.0 units minimum
All of the following must be completed:

		Units
CT 110	Building Codes and Zoning	3.0
CT 111A	Uniform Building Code 1	3.0
CT 111B	Uniform Building Code 2	3.0
CT 112	Uniform Mechanical Code	3.0
CT 113	Uniform Plumbing Code	3.0
CT 114	National Electrical Code	3.0
CT 115	Technical Office Procedures and Field Inspection	3.0

CONSTRUCTION MANAGEMENT CERTIFICATE

Provides the skills and background necessary for employment as a contractor, construction business manager, construction supervisor, or foreman when linked with appropriate, trade-specific knowledge.

Requirements
Students must complete their Construction Technology Certificate plus all of the following:
18.0 units minimum
All of the following must be completed:

		Units
CT 103	Construction Management	3.0
CT 104	Construction Law	3.0
CT 109	Construction Financing	3.0
CT 110	Building Codes and Zoning	3.0
CT 132	Construction Estimation	3.0
BADM 101	Elementary Accounting	4.0
OR		
BADM 103	Financial Accounting	3.0

BASIC ELECTRICAL TECHNICIAN CERTIFICATE

This certificate provides the necessary knowledge and skill level required for employment in the electrical industry.

Requirements
16.0 units minimum
All of the following must be completed:

		Units
CT 107	Technical Math	3.0
OR		
CT 108	Advanced Technical Math	3.0

AND		
CT 114	National Electrical Code	3.0
CT 116	Construction Safety	2.0
CT 120A	Electrical Wiring	4.0
CT 120B	Commercial Wiring	4.0

BASIC HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION (HVAC/R) SERVICE TECHNICIAN CERTIFICATE

This certificate provides the basic knowledge and skills necessary for job opportunities in heating, ventilation and air conditioning.

Requirements
17.0 units minimum
All of the following must be completed:

		Units
CT 107	Technical Math	3.0
OR		
CT 108	Advanced Technical Math	3.0
AND		
CT 116	Construction Safety	2.0
CT 122A	Heating and Air Conditioning	4.0
CT 122B	Commercial Refrigeration	4.0
CT 136	HVAC Circuits and Controls	4.0

PLUMBING TECHNICIAN CERTIFICATE

This certificate provides the necessary knowledge and skill level required for employment in the plumbing industry.

Requirements
15.0 units minimum
All of the following must be completed:

		Units
CT 107	Technical Math	3.0
OR		
CT 108	Advanced Technical Math	3.0
AND		
CT 113	Plumbing Code	3.0
CT 116	Construction Safety	3.0
CT 124	Plumbing	4.0
CTMT 121	Plumbing Repair	3.0

PUBLIC WORKS CERTIFICATE

This certificate provides the necessary skill level for employment on public works projects. Public works includes construction of streets and highways, water distribution systems, and waste water systems.

Requirements
Students must complete their Construction Technology Certificate plus all of the following:
18.0 units minimum

Group I - All of the following must be completed:

		Units
CTPB 111	Introduction to Public Works	3.0
CTPB 112	Plan Reading for Public Works	3.0
CTPB 113	Public Works Inspection	3.0
CTPB 114	Public Works Administration	3.0

Group II - Two of the following must be completed:

CT 23	Surveying	4.0
CTPB 115	Street and Highway Construction	3.0
CTPB 116A	Water Distribution Systems	3.0
CTPB 117	Portland Cement Concrete	3.0
CTPB 118	Solid Waste Management	3.0
CTPB 119	Wastewater Management	3.0

BASIC RESIDENTIAL MAINTENANCE TECHNICIAN CERTIFICATE

This certificate provides the necessary knowledge and skill level required for employment in the residential maintenance and repair industry.

Requirements
15.0 units minimum
All of the following must be completed:

		Units
CT 107	Technical Math	3.0
OR		
CT 108	Advanced Technical Math	3.0
AND		
CT 116	Construction Safety	2.0
CTMT 120	Residential Maintenance and Repair	4.0
CTMT 121	Plumbing Repair	3.0
CTMT 122	Electrical Repair	3.0

BASIC WOODWORKING CERTIFICATE

This certificate demonstrates a basic understanding of wood, joinery and woodworking skills and the ability to safely and appropriately use common hand tools, power tools and equipment to perform common woodworking tasks. This certificate can lead to employment in a wide variety of woodworking trades.

Requirements
17.0 units minimum
All of the following must be completed:

		Units
CTMF 120A	Woodworking Tools and Equipment	2.0
CTMF 121A	Woodworking	3.0
CTMF 121B	Advanced Woodworking	3.0
CTMF 122	Advanced Wood Topics	3.0
CTMF 129A	Woodturning	3.0
CTMF 129B	Advanced Woodturning	3.0

RENEWABLE ENERGY CERTIFICATE

This certificate demonstrates an understanding of renewable generation and the effects of fossil fuel use on our environment, economy and society. This certificate can lead to employment in the renewable energy field.

Requirements
17.0 units minimum
Group I - All of the following must be completed:

		Units
CT 105	Technical Sketching	3.0
CT 107	Technical Math	3.0
OR		
CT 108	Advanced Technical Math	3.0
CT 142	Renewable Energy	3.0
CT 143	Renewable Energy Laboratory	5.0
CTMT 122	Electrical Repair	3.0

Associate Degree

To earn an Associate in Science degree with a major in Construction Technology a minimum of 21.5 must be completed from the following list of departmental classes and the student must meet all Victor Valley College graduation requirements.

Group I - All of the following must be completed:

		Units
CT 101	Careers in Construction	1.5
CT 103	Construction Management	3.0
CT 104	Construction Law	3.0
CT 106	Materials of Construction	3.0
CT 110	Building Codes and Zoning	3.0
CT 116	Construction Safety	2.0
CT 131	Microcomputers in Construction	3.0

Group II - One of the following must be completed:

		Units
CT 105	Technical Sketching	3.0
CT 107	Technical Math	3.0
CT 108	Advanced Technical Math	3.0
CIDG 103	Blueprint Reading for Construction	3.0

Transfer

Transfers to CSU system for bachelor's degree in Industrial Technology. Some Construction Technology courses transfer as Electives or fulfill subject credit requirements. Some students in this program choose to pursue a bachelor's degree in Architecture or Engineering. See Architecture and Engineering for transfer requirements for these majors.

CSU Stanislaus, located in the Central Valley not far from the San Francisco Bay area, offers a B.S. degree in Applied Studies (telephone: 209 667-3597), to which up to 30 units of VVC's Construction and Manufacturing Technology courses can be applied. Prerequisites: BADM 101, CIS 101, ECON 102, and MATH 120, plus complete the remaining CSU General Education-Breadth requirements (you can use ECON 102 and MATH 120 for both).

COOPERATIVE WORK EXPERIENCE EDUCATION

Cooperative Education is a key element of Victor Valley College's comprehensive approach to career development. Co-op is an 16-, 12-, or 8-week course that enables the student to receive college credit for on-the-job training that will make him/her a more efficient and valuable employee while providing a practical education that supplements and enhances classroom theory. It relates education to real work environments through learning while earning. It also provides the opportunity for work improvement by improving skills. Victor Valley College recognizes job experience as a valuable learning resource. It has the uniqueness of turning community business, industry, and public agencies into an expanded education training laboratory. Co-op also allows credit for volunteer training. Credit is awarded on the basis of objectives completed and the number of hours the student trains. Students may utilize their present worksites. More details are available in the Co-op Office, (760) 245-4271, ext. 2281. The office is open Monday-Friday, 8:30 a.m.-12 noon, 1:00-5:00 p.m., and by appointment.

Co-op is a course designed for students who are cross-training at their current worksite for upward mobility or possible career changes as well as those looking for entry-level occupational training through work-based learning experiences.

Are you looking for occupational skills training for employment? We can offer you:

- Practical experience
- An opportunity to apply classroom learning on the job
- College credit
- Career guidance in a realistic setting
- A chance to learn what you can do well and what you enjoy doing
- A reason for staying in college
- Job contacts
- Up-to-date laboratory experience
- Orientation to changing job conditions
- New ways of getting ahead
- Opportunity to experience socialization in the work place
- Transferable college units

Credit is awarded on the basis of objectives completed and the number of hours worked. The student needs a minimum of 75 hours of paid work for each unit of credit or 60 hours of volunteer work for each unit of credit.

75 Hours per unit/per semester

Paid		Total Semester Hours
5 hrs/wk	1.0 unit	75
10 hrs/wk	2.0 units	150
15 hrs/wk	3.0 units	225
20 hrs/wk	4.0 units	300
40 hrs/wk	8.0 units	600

60 Hours per unit/per semester

Volunteer		Total Semester Hours
4 hrs/wk	1.0 unit	60
8 hrs/wk	2.0 units	120
12 hrs/wk	3.0 units	180
16 hrs/wk	4.0 units	240
32 hrs/wk	8.0 units	480

Students may utilize their present work sites.

Occupational Cooperative Work Experience Education (1-8 units)

Up to 16 units may be used for elective credit for the AA/AS degree and transfer to CSU.

General Cooperative Work Experience Education (1-6 units)

Students do not need a declared major and do not need to be working in a major to enroll in Coop General Work Experience.

Eligibility

To be eligible for Cooperative Education, students must:

- Be enrolled as a Victor Valley Community College student.
- Spend at least five (5) hours a week at a training site.
- Pursue a planned program of Cooperative Education that includes new or expanded responsibilities or learning opportunities beyond those of previous employment and training.

Transfer Credit

Up to 16 units may be used as elective credit for the AA/AS degree.

Cooperative Education Work Experience is offered in the following areas:
Administration of Justice
Agriculture and Natural Resources
Allied Health
Art
Automotive
Biology
Business Administration
Business Education Technologies
Business Escrow
Business Real Estate
Chemistry
Child Development
Computer Information Systems
Computer Integrated Design & Graphics (Drafting)
Construction & Manufacturing Technology
Education
Electronics and Computer Technology
English
Fire Technology
General Work Experience
Journalism
Mathematics
Music
Nursing
Paralegal
Photography
Physical Science
Physics
Political Science
Psychology
Respiratory Therapy
Restaurant Management
Sociology
Theater Arts
Welding

NOTE: To enroll in Cooperative Work Experience Education, you do not have to declare a major.

For further information and individual guidance, contact the Cooperative Education Office at 245-4271, ext. 2281.

Faculty

Full Time
Maggi Dunsmore

DEVELOPMENTAL STUDIES

Developmental Studies courses offer language analysis curriculum specifically designed for students with language based disabilities. The curriculum is a multisensory, sequential, and cognitive approach which includes both perceptual and neurological deficit therapy. For course descriptions, see Section IX of this catalog.

ECONOMICS

Economists study how society can best use resources such as land, raw materials, capital, and labor. They analyze the relationship between the supply of goods and services and the demand as well as how these goods and services are produced, distributed, and consumed. Some economists work on public issues such as the control of inflation, business cycles, unemployment, wage, tax, and tariff policies. Others collect, analyze, and interpret data on a wide variety of economic problems, develop theories to explain causes of these problems, and identify possible solutions.

Economics provides both a general academic experience and professional preparation. The program emphasizes economic analysis, institutions, and policy in America, regional, and urban settings. Economics is designed to facilitate the students' matriculation to the four-year college or to provide an understanding of the economic world in which we live. Key concepts and methodology for analysis are emphasized. For course descriptions, see Section IX of this catalog.

Career Opportunities

Budget Analyst
Business Analyst
Business Forecaster
Commodity Economist
Commodity Price Forecaster
Economic Analyst
Economic Forecaster
Economist
Industrial Relations Specialist
Investment Analyst

Faculty

Peter Allan
Henry Young

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program

No certificates awarded.

Associate Degree

No Associate degree is offered with a major in Economics. Economics courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Economics major
ECON 101, 102, MATH 104, 105 or H105, 120
Social Science Teaching Credential Option:
All above courses
Add: ANTH 102, GEOG 101 + 101L, 102,
HIST 103 + 104, 117, 118 or H118, POLS 102 or H102, PSYC 101, RLST 110, SOC 101, GEOG 102
CSU General Education-Breadth Requirements

University of California, Riverside
Economics major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
Completion of IGETC recommended.

EDUCATION

The Department of Education and Educational Technology at Victor Valley College offers certificate programs for transfer into teaching credential programs offered at accredited four-year colleges. These preparatory courses may transfer to Education and Educational Technology majors when and where articulation agreements exist. Education is the career field for those individuals who desire to teach in elementary and secondary schools, as well as in colleges and professional education. This field of study prepares students to participate as teachers and learning facilitators. Graduates in this field—bachelors degree and postgraduate study required —qualify for a variety of positions including teaching at the elementary, secondary, and college levels. Education remains on the national list of growing occupations.

To obtain a California teaching credential, students must follow a five-year program by first pursuing a four-year bachelor's degree and then completing a fifth year teaching credential program in which they complete mostly education courses, including student teaching.

CBEST
Students will usually student teach during the last two quarters of their credential program. Before student teaching, all students must take the California Basic Educational Skills Test (CBEST). Most students take the CBEST during their junior year, a quarter or two after transfer to a university.

Credentials
California Commission on Teacher Credentialing is responsible for setting standards for licensure of teachers and for accreditation of institutions that prepare teachers. The Commission is working toward meeting the standards set by the Senate Bill 2042. Some institutions may still be in the process of making changes to comply with the Commission's new standards. If you are thinking of a career in teaching, you should see a counselor for the latest information.

Waiver Programs
No waiver programs for Multiple Subject teaching programs will be available. Multiple Subject candidates will be required to pass the CSET exam.

Multiple Subject Programs
California State University, San Bernardino:
Liberal Studies, Human Development/Child Development Track II

Multiple Subject Programs
University of California, Riverside:
English, Ethnic Studies, History, Human Development, Liberal Studies, Political Science, Sociology

Single Subject Waiver Programs
Middle school and high school teacher candidates must possess a bachelor's degree in the subject they plan to teach or possess a bachelor's degree in any subject and pass the CSET subject matter test in the subject they plan to teach.

Single Subject Programs
California State University, San Bernardino:
Art, English, English with a concentration in Communication Studies, English with a concentration in Theatre Arts, French, Health Sciences, History, Mathematics, Music, Physical Education, Political Science, Social Sciences, Spanish, any of the sciences

Single Subject Programs
University of California, Riverside
Biological Sciences, English, History, Mathematics, Political Science, Physical Sciences (Physics), Social Sciences

Educational Specialist Credential
New Legislation upcoming.

Because credential programs are subject to change, students should meet with a counselor periodically to obtain the most up-to-date information. A minimum 2.6-3.0 GPA is required for acceptance into a credential program. Minimum GPA accepted varies according to the major and the university the student chooses.

Career Opportunities

Administrative Services
Elementary Teacher
ESL Teacher
High School Teacher
College Instructor
Education Consultant
Training Facilitator
Instructional Designer
Distance Learning Specialist
MGM Teacher
Physically Handicapped Teacher
Pupil Personnel Services
Reading Teacher
Special Education Teacher
Vocational Teacher

Faculty

Mike Smith

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts
Degree will vary with major.
Educational Technology Certificate
Collegial Education Certificate Level I, II

Certificate Program

EDUCATIONAL TECHNOLOGY CERTIFICATE

The Educational Technology Certificate Program significantly enhances transfer readiness for students who intend to pursue a career in public education (K-12 teacher, community college teacher, school administration, academic counseling, special education, etc.) or a career in professional education (instructional designer, business/corporate trainer, educational software engineer, educational consultant.) Additionally, the program (1) certifies teachers of all types in the use and integration of computer technology in their practice, and (2) certifies students for work as para-professionals or para-educators in technology-enhanced school settings, such as computer labs and networked classrooms. The Educational Technology Certificate Program exceeds the rigorous standards set by version two of the California Technology Assessment Profile.

Requirements
17.0 units minimum
All of the following must be completed:

		Units
EDUC 101	Introduction to Teaching	3.0
OR		
EDUC 52	Educating Today's Learner	3.0
ETEC 106	Introduction to Computer Technology for Educators	4.0
ETEC 107	Introduction to the Internet for Educators	2.0
ETEC 51	Introduction to Educational Technology	3.0
ETEC 70	Leadership in Educational Technology	3.0
ETEC 90	Educational Technology Internship	2.0

COLLEGIAL EDUCATION CERTIFICATE

This certificate will serve the needs of parents who home school their children or are actively involved in the education of their children at school. It is intended to assist parents developing their understanding of how children think and learn, and how different educational styles and approaches influences learning. The certificate will initially be offered to parents of students at the Lewis Center in Apple Valley and has been developed in collaboration with the administration of the Lewis Center.

COLLEGIAL EDUCATION - LEVEL I

Requirements
8.0 units minimum
All of the following must be completed with a grade of "C" or better:

		Units
EDUC 101	Introduction to Teaching	3.0
EDUC 50	Tutoring Principles and Practices	2.0
CHDV 146	Child Growth and Development	3.0

COLLEGIAL EDUCATION CERTIFICATE - LEVEL II CURRICULUM SPECIALIZATION

Requirements
6.0 units minimum
Students must first complete the Collegial Education Certificate - Level 1. Choose 6 units from any of the following:

		Units
CHDV 134	Language Experiences for Young Children	3.0
CHDV 144	Math and Science for Young Children	2.0
ENGL 235	Children's Literature	3.0
MATH 70	Building Mathematical Experiences for Children K-8	3.0
MATH 71	Guided Discoveries Practicum	2.0

COLLEGIAL EDUCATION CERTIFICATE - LEVEL II TEACHING AND LEARNING SPECIALIZATION

Requirements
6.0 units minimum
Students must first complete the Collegial Education Certificate - Level 1. Choose 6 units from any of the following:

		Units
CHDV 132	Montessori Methods	3.0
EDUC 52	Educating Today's Learner	3.0
GUID 107	Learning Strategies and Study Skills	3.0
PSYC 105	Personal and Career Success	3.0

COLLEGIAL EDUCATION - LEVEL II: TECHNOLOGY SPECIALIZATION

Requirements
6.0 units minimum
Students must first complete the Collegial Education Certificate - Level 1. Choose 6 units from any of the following:

		Units
ETEC 106	Introduction to Computing for Educators	4.0
ETEC 107	Introduction to the Internet for Educators	2.0
ETEC 51	Introduction to Educational Technology	3.0
BET 112	Building Mathematical Experiences for Children K-8	3.0
BET 131A	Presentation Software: PowerPoint I	1.0
BET 131B	Presentation Software: PowerPoint II	1.0
BET 131C	Presentation Software: PowerPoint III	1.0
BET 135	Desktop Publishing: PageMaker	2.0

Associate Degree

No associate degree offered with a major in Education. Courses in the Liberal Studies major may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major.

Transfer

To pursue a bachelor's degree which prepares the student for elementary (K-6) teaching, complete the following courses prior to transfer if possible:

MULTIPLE-SUBJECT TEACHING CREDENTIAL

- **California State University, San Bernardino**
  Liberal Studies major
  (See **Table 1** in Section VII of this catalog.)

For the most recent updates, visit www.assist.org.

- **University of California, Riverside**
  Liberal Studies major
  Multiple Subject Teaching Credential for Elementary Teaching

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
Completion of IGETC recommended.

- **Azusa Pacific University, Victorville**
  Human Development major (CSET Waiver)
  (See **Table A** in Section VII of this catalog.)

- **University of La Verne**
  Liberal Studies major
  (See **Table E** in Section VII of this catalog.)

- **University of La Verne**
  Liberal Studies major
  (See **Table E** in Section VII of this catalog.)

- **Southern Illinois University, Riverside**
  Workforce Education and Development (corporate training) major
  (See **Table D** in Section VII of this catalog.)

SINGLE SUBJECT TEACHING CREDENTIAL

Students pursuing a Single Subject Teaching Credential to teach a specific subject in Grades 7-12 should follow the bachelor's degree major requirements for that specific subject waiver program and complete the appropriate general education requirements. For example, a student who plans to teach English in high school should complete the transfer requirements for an English major or an English waiver and all general education transfer requirements for the specific university.

VOCATIONAL SUBJECTS

The following California State Universities (CSU) offer Vocational Ed./Occupational Studies as a Bachelor's Degree. Contact individual CSU campuses for admission requirements:
California State University

Long Beach	San Diego
Los Angeles	San Francisco
San Bernardino	San Luis Obispo

ELECTRONICS AND COMPUTER TECHNOLOGY

The Electronics and Computer Technology Department offers several concentrations in electronics and computer technology that are designed to prepare students for a variety of high-tech job/career opportunities in the fields of engineering and technology; electronics technology; computer technology; telecommunication technology; and related technologies.

The Electronics and Computer Technology Department offers an associate degree program in engineering technology with an emphasis in electronics, computers, and telecommunications. Technology certificates offered in areas of specialization include: electronics technology, computer technology, telecommunication technology, networking technology, electronic communication technology, industrial electronics technology. Certificates/certifications offered in specific areas of electronics, computers, and related technology include: Certified Electronics Technician (Associate CET), A+ Certified Computer Service Technician, N+ Certified Networking Technician, CISCO Certified Network Associate (CCNA), CISCO Certified Network Professional (CCNP), Microsoft Certified Systems Engineer (MCSE), Certified Fiber Optics Installer, (FOIC), Electronics Communications (WCM, FCC license) and Digital and Microprocessor Electronics.

Career Opportunities

Electronics Engineering Technologist
Computer Engineering Technologist
Network Engineering Technologist
Telecommunications Engineering Technologist
Certified Electronics Technician, CET
A+ Certified Computer Technician
N+ Certified Network Technician
Certified Telecommunication Technician
CISCO Certified Network Associate (CCNA)
CISCO Certified Network Professional (CCNP)
Microsoft Certified Professional (MCP)
Microsoft Certified Systems Engineer (MCSE)
Networking Cable Installer
Fiber Optics Installer
Microwave/Radar Technician
Laser/Optical Technician
Industrial Electronics Technician
Consumer Electronics Technician
Biomedical Instrument Technician
Audio/Visual Systems Technician
Broadcast Radio and Television
Research and Development
Sales Representative, electronics and computer equipment
Quality Control Technician

Faculty

Full Time
Tom Faro
Khalid Rubayi

Degrees and Certificates Awarded

Associate in Science, Electronics and Computer Technology
Associate in Science, Electronics Engineering Technology
Associate Degree Electronics Engineering Technology Certificate
A+ Certification Examination Preparation Certificate
CISCO Networking Academy I, II, III, IV, V, VI, VII Certificate
Computer Technology Certificate
Communication Electronics Certificate
Digital Electronics Certificate
Electronics Technology Certificate
Fiber Optic Cabling Technician Certificate
N+Certification Examination Preparation Certificate
Wireless Communication Technology Certificate
Wireless MSCSE Examination Preparation Certificate Level I, II

Certificate Programs

ASSOCIATE DEGREE ELECTRONICS ENGINEERING TECHNOLOGY CERTIFICATE

Professional Preparation

Requirements
64.5-68.5 units minimum
All of the following must be completed:

		Units
ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 133	Solid State Devices and Circuits	4.0
ELCT 134	Solid State Circuit Analysis	4.0
ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 51	C++ Programming for Electronics and Computer Technology	4.0
ELCT 71	Principles of Digital Logic and Circuits	4.0
ELCT 73	Microprocessor Principles	4.0

One of the following two groups must be completed:
Electronics Emphasis

ELCT 53	Electronic Communication Principles	4.0
ELCT 54	Electronic Communication Systems	4.0

Computer Emphasis

ELCT 61	Basic Maintenance of Personal Computers	4.0
ELCT 77A	Networking Technology and Practices I	4.0

* Individualized instruction courses require 108 hours of supervised laboratory activities.

All of the following must be completed:

		Units
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 59	Technical Calculus for Electronics I	3.0
ELCT 60	Technical Calculus for Electronics II	3.0

Students planning to transfer to an Electrical engineering program should take the following mathematics courses (instead of ELCT 57, 58, 59, and 60)

MATH 105	College Algebra	4.0
MATH 104	Trigonometry	3.0
MATH 226	Analytic Geometry and Calculus	5.0
MATH 227	Analytic Geometry and Calculus	5.0

One of the following must be completed:
Any course that will satisfy the VVC Social Science requirement* 3.0

One of the following must be completed:
Any course that will satisfy the VVC Humanities requirement* 3.0

6 units from the following must be completed:

Any courses that will satisfy the VVC Language Skills requirement* 6.0

One of the following must be completed:
Any course that will satisfy the VVC Physical Education requirement* 1.0

*See pages 48-49 for a listing of courses that can satisfy the various GE requirements listed here.

COMPUTER TECHNOLOGY CERTIFICATE

Career Preparation

Requirements
36.0 units minimum
All of the following must be completed:

		Units
ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 133	Solid State Devices and Circuits	4.0
ELCT 134	Solid State Circuit Analysis	4.0
ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 61	Basic Maintenance of Personal Computers	4.0
ELCT 71	Principles of Digital Logic and Circuits	4.0
ELCT 73	Microprocessor Principles	4.0

Career Option - 6 Units
Career specialty options include individualized instruction courses that are designed to provide the student with skills and/or knowledge in a specific area of digital/microprocessor technology. Supervised time will be spent with computers, audiovisual material, and laboratory equipment to meet specific objectives. Each specialty course requires 108 hours to complete, or an average of 6 hours per week.

One of the following career options must be completed:
Option 1: Microprocessor Systems

ELCT 91	Microprocessor Interfacing	3.0
ELCT 92	Microprocessor Applications	3.0

Option 2: Computer Systems

ELCT 62	PC Servicing	3.0
ELCT 63	PC Troubleshooting	3.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL I

Requirements
17.0 units minimum
All of the following must be completed:

		Units
ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 76	Basic Maintenance of Personal Computers	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 80	Fiber Optics Cabling	3.0
ELCT 78A	CISCO Networking Academy I	4.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL II

Requirements
17.0 units minimum
All of the following must be completed:

		Units
ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 76	Basic Maintenance of Personal Computers	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 80	Fiber Optics Cabling	3.0
ELCT 78B	CISCO Networking Academy II	4.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL III

Requirements
17.0 units minimum
All of the following must be completed:

		Units
ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 76	Basic Maintenance of Personal Computers	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 80	Fiber Optics Cabling	3.0
ELCT 78C	CISCO Networking Academy III	4.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL IV

Requirements
17.0 units minimum
All of the following must be completed:

		Units
ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 76	Basic Maintenance of Personal Computers	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 80	Fiber Optics Cabling	3.0
ELCT 78D	CISCO Networking Academy IV	4.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL V

Requirements
17.0 units minimum
All of the following must be completed:

		Units
ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 76	Basic Maintenance of Personal Computers	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 80	Fiber Optics Cabling	3.0
ELCT 78E	CISCO Networking Academy V	4.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL VI

Requirements
17.0 units minimum
All of the following must be completed:

		Units
ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 76	Basic Maintenance of Personal Computers	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 80	Fiber Optics Cabling	3.0
ELCT 78F	CISCO Networking Academy VI	4.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL VII

Requirements
17.0 units minimum
All of the following must be completed:

		Units
ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 76	Basic Maintenance of Personal Computers	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 80	Fiber Optics Cabling	3.0
ELCT 78G	CISCO Networking Academy VII	4.0

DIGITAL ELECTRONICS CERTIFICATE

Requirements
30.0 units minimum
All of the following must be completed:

		Units
ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 133	Solid State Devices and Circuits	4.0
ELCT 134	Solid State Circuit Analysis	4.0
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 71	Principles of Digital Logic and Circuits	4.0
ELCT 73	Microprocessor Principles	4.0

ELECTRONICS TECHNOLOGY CERTIFICATE

Career Preparation
Requirements
36.0 units minimum
All of the following must be completed:

		Units
ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 133	Solid State Devices and Circuits	4.0
ELCT 134	Solid State Circuit Analysis	4.0
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 71	Principles of Digital Logic and Circuits	4.0
ELCT 73	Microprocessor Principles	4.0

Career Option - 6 Units
Career specialty options are individualized instruction courses and are designed to provide the student with skills and/or knowledge in a specific area of Electronics technology. Supervised time will be spent with computers, audiovisual material, and laboratory equipment to meet specific objectives. Each specialty option requires 108 hours to complete, or an average of 6 hours per week.

One of the following career options must be completed:

		Units
Option 1: Optoelectronics		
ELCT 85	Fiber Optics	3.0
ELCT 86	Lasers	3.0
Option 2: Telecommunications		
ELCT 97	Digital Communications	3.0
ELCT 99	Microwave Communications	3.0
Option 3: Television and Video Systems		
ELCT 93	TV Servicing	3.0
ELCT 94	VCR/Camcorder Servicing	3.0
Option 4: Industrial Electronics		
ELCT 87	Industrial Control Systems	3.0
ELCT 88	Industrial Process Control Applications	3.0
Option 5: Biomedical Electronics		
ELCT 89	Biomedical Instrumentation	3.0
ELCT 90	Advanced Biomedical Instrumentation	3.0

MICROSOFT CERTIFIED SYSTEMS ENGINEER (MCSE) EXAMINATION PREPARATION CERTIFICATE LEVEL I

Requirements
14.0 units minimum
All of the following must be completed:

		Units
ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 76	Basic Maintenance of Personal Computers	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 79A	Microsoft Certified Systems Engineer	4.0

MICROSOFT CERTIFIED SYSTEMS ENGINEER (MCSE) EXAMINATION PREPARATION CERTIFICATE LEVEL II

Requirements
14.0 units minimum
All of the following must be completed:

		Units
ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 76	Basic Maintenance of Personal Computers	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 79A	Microsoft Certified Systems Engineer II	4.0

NETWORK CABLING TECHNICIAN CERTIFICATE

Requirements
16.0 units minimum
All of the following must be completed:

		Units
ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 32	AC Circuit Theory and Analysis	4.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 69	Network Topologies and Cabling	2.0

FIBER OPTIC CABLING TECHNICIAN CERTIFICATE

Requirements
17.0 units minimum
All of the following must be completed:

		Units
ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 80	Fiber Optics Cabling	3.0

A+ CERTIFICATION EXAMINATION PREPARATION CERTIFICATE

Requirements
15.0 units minimum
All of the following must be completed:

		Units
ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 76	Basic Maintenance of Personal Computers	4.0
ELCT 65	PC Monitors	3.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 107	A+ Certification Exam Preparation	2.0

N+ CERTIFICATION EXAMINATION PREPARATION CERTIFICATE

Requirements
17.0 units minimum
All of the following must be completed:

		Units
ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 76	Basic Maintenance of Personal Computers	4.0
ELCT 77A	Networking Technology and Practices I	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 80	Fiber Optics Cabling	3.0

WIRELESS COMMUNICATION TECHNOLOGY CERTIFICATE

Requirements
38.0 units minimum
All of the following must be completed:

		Units
ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 133	Solid State Devices and Circuits	4.0
ELCT 134	Solid State Circuit Analysis	4.0
ELCT 53	Electronic Communication Principles	4.0
ELCT 54	Electronic Communication Systems	4.0
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 71	Principles of Digital Logic and Circuits	4.0
ELCT 73	Microprocessor Principles	4.0

SPECIAL PROGRAMS

FEDERAL COMMUNICATIONS COMMISSION (FCC) COMMERCIAL RADIO OPERATOR LICENSE

FCC licenses are required by law to operate and maintain many types of communications equipment. The broadcasting, avionics, and maritime industries are the primary employers of commercial license holders. Many other fields now require FCC licenses. New technologies are evolving which must have qualified technicians and operators to comply with the procedures and rules needed to bring order to the international communications maze.

Under the auspices of the Electronics Technician Association and the International (ETA), FCC license examinations are administered at the Electronics and Computer Technology Department by an official ETA examiner. An examination fee is required.

The following FCC commercial licenses and endorsements are obtained by successfully passing a series of examinations:

General Radiotelephone (Examination elements 1 and 3)
Radar Endorsement (Element 8)
GMDSS', Radio Operator (Elements 1 and 7)
GMDSS', Radio Maintainer (Elements 1, 3, and 9)

Examination schedules can be obtained by contacting the Electronics and Computer Technology Department.

An FCC license preparation course also is offered (see course offerings in the Electronics and Computer Technology Department in the Victor Valley College Catalog).

Note: (1) Global Maritime Distress and Safety System

CERTIFIED ELECTRONICS TECHNICIAN (CET) CERTIFICATION

CET examinations thoroughly assess an individual's (a) general knowledge of electronics and computer technology, and (b) specific knowledge in fourteen separate specialty areas. Upon successful completion of the selected examination, the technician is registered and receives the CET certificate from the Electronics Technician Association, International. This certificate identifies the technician as having attained a high level of competence in the profession.

Under the auspices of the Electronics Technician Association, International (ETA), CET examinations are administered at the Electronics and Computer Technology Department by an official ETA examiner. An examination fee is required.

The following Electronic Technician Certifications and endorsements are obtained by successfully passing a series of examinations:

Associate: For students and entry level technicians with less than four years of experience. This examination pertains to basic Electronics and computer technology.

Journeyman: For technicians with four or more years of combined education and experience. This examination consists of the associate examination plus one of the following options:

Telecommunications Electronics Technician - TCM
Certified Network Systems Technician - CNST
Certified Web Specialist - CSW
Registered Small-Dish Installer - RSDI
Certified Satellite Installer - CSI
Certified Fiber Optics Installer Technician - FOIC
Wireless Communications Electronics Technician - WCM
Radar Electronics Technician - RAD
Biomedical Electronics Technician - CMP
Certified Computer Electronics Technician - CMP
Consumer Electronics Technician - CSM
Video Electronics Technician - VID
Certified Industrial Electronics Technician - IND
Certified Network Computer Technician - CNCT

Examination schedules can be obtained by contacting the Electronics and Computer Technology Department.

A CET certification preparation course also is offered (see course offerings in the Electronics and Computer Technology Department in the Victor Valley College catalog).

Associate Degree

To earn an Associate in Science degree with a major in Electronics and Computer Technology, complete a minimum of 18 units from any of the certificate requirements above or from any Electronics and Computer Technology courses and meet all Victor Valley College graduation requirements. The Associate Degree Electronic Engineering Technology Certificate includes all general education requirements for an Associate in Science degree with a major in Electronic Engineering Technology. ELCT 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer

Most Electronics and Computer Technology courses transfer as Electives or fulfill subject credit requirements. Students in this program sometimes choose to pursue a bachelor's degree in technology fields such as Industrial Technology at California State Polytechnic University, San Luis Obispo or Engineering Technology at California State Polytechnic University, Pomona. Other students choose to pursue an Engineering degree which requires a more intense curriculum in mathematics, chemistry, and physics. See Engineering for transfer requirements.

Campuses that offer Electronics and Computer Technology majors include: CSU - Chico, Fullerton, Long Beach, Pomona and Sacramento.

Refer to ASSIST, at www.assist.org for major preparation requirements.

EMERGENCY MEDICAL TECHNICIAN

The EMT 1A is the beginning level for emergency response personnel. It is the minimum preparation required to staff an ambulance.

EMT 1A can be completed in one class. Classes in this area meet California State EMS authority and ICEMA regulations. For course descriptions, see Section IX of this catalog.

Career Opportunities

Emergency Medical Technician

Faculty

Full Time
Brian Hendricksen
Scott Jones

Degrees and Certificates Awarded

Emergency Medical Technician I Certificate (Ambulance)
Emergency Medical Technician Certificate (Refresher)

Certificate Programs

EMERGENCY MEDICAL TECHNICIAN I CERTIFICATE (AMBULANCE)

Requirements
8.0 units minimum

		Units
ALDH 71	Emergency Medical Technician I (Ambulance)	8.0

Valid for two years from date of issue.

EMERGENCY MEDICAL TECHNICIAN CERTIFICATE (REFRESHER)

Requirements
1.0 unit minimum

		Units
ALDH 72	Emergency Medical Technician (Ambulance) Refresher Course	1.0

Required for renewal of Emergency Medical Technician Certificate.

ENGINEERING

Victor Valley College does not offer this program, but does offer preparatory courses needed for transfer into Engineering.

Engineers seek to understand and solve a broad range of technological problems faced by our society. Engineers are responsible for such projects as converting raw materials and power sources into useful products, developing scientific equipment, and designing and planning the construction of buildings, highways, and rapid transit systems. As society becomes more technologically complex, so do the ever-emerging branches of engineering.

The rigorous curriculum of engineering programs is for high achieving students who have developed good study habits and possess a strong math and science background.

Degrees and Certificates Awarded

Associate in Science, Math/Science

Associate Degree

No associate degree offered with a major in Engineering from Victor Valley College. Because the math and science requirements are so extensive, students usually pursue an associate degree with a major in Math/Science.

Transfer

Engineering is a highly competitive transfer degree which is impacted at many universities. The following courses are minimal requirements for most engineering majors: CHEM 101, 202; MATH 226, 227; PHYSICS 101, 202, 203 General education requirements to include ENGL 101 and 202.

See appropriate university catalog for specific general education requirements as these requirements for engineering majors vary from university to university. IGETC or CSU General Education-Breadth Requirements are not always appropriate for an engineering major.

For the most current information, visit www.assist.org.

University of California, Riverside
Chemical Engineering:
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required. See counselor for general education requirements for College of Engineering.

California State University
Campuses that offer Engineering majors include: CSU-Chico, Fresno, Long Beach, Los Angeles, Northridge, Pomona, Sacramento, San Diego, San Francisco, San Jose, San Luis Obispo and Maritime Academy.

Refer to ASSIST, at www.assist.org for major preparation requirements.

ENGLISH

The study of English offers the student development of writing skills as well as an appreciation of literature. The discipline of reading and writing about the human experience is a vital foundation for all learning.

Since English composition courses are designed to help the student write the kind of papers commonly required in college courses, the student's first course in composition should be taken during the first semester (15 units) of college work, and the second course during the second semester (15 to 30 units) For course descriptions, see Section IX of this catalog.

Career Opportunities

B.A. Level (Most careers require a bachelor's degree.)
Copywriter
Creative Writer
Editor
Journalist
Library Reference Worker
Magazine Writer
Proofreader
Public Relations Worker
Researcher
Technical Writer

Faculty

Full Time
Tim Adell
Claudia Basha
Robert Begley
Bryce Campbell
Andrea Glebe
Patty Golder
Carol Golliher
Joe Pendleton
Jane Skuster
Judy Solis
Patricia Teel
Karen Tomlin
Patricia Wagner
James Wilson

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Certificate Program
No certificates awarded.

Associate Degree
No associate degree offered with a major in English. English courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements. ENGL 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer
To pursue a bachelor's degree, complete the following courses before transfer if possible:

California State University, San Bernardino
English major
ENGL 245 + 246
CSU General Education-Breadth Requirements

University of California, Riverside
English major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
Completion of IGETC recommended.

ENGLISH AS A SECOND LANGUAGE (ESL)

English as a Second Language (ESL) is the study of English designed for non-native speakers of English. As California becomes culturally and linguistically more diverse, the need for language and cultural orientation grows. Moreover, non-native speakers of English will need to develop academic language skills necessary for success at the college level. It is the goal of the ESL program to meet that need. For course descriptions, see Section IX of this catalog.

Career Opportunities
Although ESL is not recognized as a separate major, it is a necessary component for success in any field for the non-native student.

Faculty
Full Time
Laird Eklund
Maria Ruiz

ENVIRONMENTAL STUDIES

Promoting an understanding of the interaction of human beings with their environment is the focus of Environmental Studies. Career Opportunities cover a wide range of positions in public agencies, business, industry and nonprofit organizations which need individuals who can provide up-to-date environmental information and assist in compliance with environmental regulations. This transfer major combines courses from the biological sciences, physical sciences, and social sciences.

Transfer
To pursue a bachelor's degree, complete the following courses before transfer if possible:

California State University, San Bernardino
Environmental Studies major
Track A: BIOL 203, CHEM 100 or H100
Three courses from the following: ANTH 101, BIOLOGY 201, 202, CHEM 206, GEOG 101+101L, PHYSICS 100 or 221
Track B: BIOL 201 + 202 + 203, CHEM 101, 202, 255
One course from the following: PHYS 100, 221
Optional: CHEM 281 + 282
Optional: One course from the following:
GEOG 101+101L, GEOL 101
CSU General Education-Breadth Requirements

University of California, Riverside
Environmental Science major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required. See counselor for general education requirements for College of Natural and Agricultural Sciences.

FINE ARTS

Degrees and Certificates Awarded
Associate in Arts, Fine Arts

Associate Degree
To earn an Associate in Arts degree with a major in Fine Arts, complete a minimum of 18 units from any of the following courses:

- ANTH
  ANTH 151
- ART
  ART 101, 102, 104, 105, 106, 107, 108, 109, 112, 113, 114, 115, 120, 121, 122, 123, 124, 150, 151, 125, 126, 128, 129, 130, 131, 132, 133, 141, 142

- MUSIC
  MUSC 101, 102, 104, 202, 204, 103, 105, 203, 205, 100, 112, 113, 115, 116, 117, 118, 110, 111, 210, 211, 120A-J, 130, 131, 134, 135, 128, 129, 137, 139, 140, 141, 146, 136, 145, 147, 122, 123, 124, 125, 132, 143, 144, 126, 108
- PHYSICAL E DUCATION
  PE103, 128 PEDA 101, 150, 151, 152, 153, 160, 161, 162, 163, 164, 165, 166, 167, 169, 170, 171, 174, 175, 176, 177, 266, 267, 270, 271, 274, 275, 276, 277
- PHOTOGRAPHY
  PHOT 52, 53, 54, 100, 101, 102, 103, 104, 105, 128, 129
- THEATRE ARTS
  ENGL 116, TA 101, 102, 104, 106, 107, 109, 110, 111, 113, 115, 116, 117, 120, 125A-C, 128, 129, 160, 161, 166, 167, 170, 171, 174, 175, 266, 267, 270, 271, 274, 275, 276, 277

Transfer

The Associate in Arts degree in Fine Arts is often a degree earned by students who plan to pursue a bachelor's degree in transfer majors such as Art, Music, Photography, and Theatre Arts. Students who plan to pursue a bachelor's degree should complete the 18 units in Fine Arts for the major and fulfill the CSU General Education-Breadth Requirements or the IGETC before transfer.

FIRE TECHNOLOGY

Fire protection is a highly specialized professional field requiring extensive knowledge and use of scientific principles. Successful application of the fundamental principles of fire protection, including suppression and extinguishment of fires, rescue, emergency medical services, prevention techniques and practices, preplanning for fire protection, and disaster control, requires technical knowledge and the ability to work within an organized system at the fire ground or other emergency scene. These actions require trained, professional people to accomplish the goals and objectives of today's public and/or private organizations in meeting their commitment to the public and employees they serve. Fire Technology provides the student the opportunity to prepare for a rewarding career in the public fire service or in private industry. For course descriptions, see Section IX of this catalog.

Fire Technology

This Occupational Education program in Fire Technology at Victor Valley College provides vocational and technical in-service training for interested students. Each student who completes a program of courses that meets the specified requirements is entitled to a Certificate of Completion in that field. Certificates are awarded as evidence that well defined levels of proficiency have been attained and they are recognized as such by employers.

In order to be awarded the certificate, the student must have completed the prescribed program with at least a 2.0 grade point average in the prescribed course work. The number of courses prescribed for each certificate varies according to the area of training.

Career Opportunities

Apparatus Operator
Disaster Preparedness
Fire Administrative Analyst
Fire Chief
Fire Division Chief
Fire Fighter I
Fire Officer I
Fire Prevention Specialist
Fire Protection Engineer
Industrial Fire Safety Specialist

FACULTY

Full-time
Tom Turner

Degrees and Certificates Awarded

Associate in Science, Fire Technology
Fire Fighter Certificate
Fire Prevention Officer Certificate
Fire Company Officer Certificate

Certificate Programs

FIRE FIGHTER CERTIFICATE

Awarded to the student who successfully completes the following course of study to meet the minimum qualifications and competencies as required by National Fire Protection Association and California State Fire Marshal's Fire Fighter I certification program.

Requirements
32.0 units minimum
All of the following must be completed:

		Units
FIRE 100	Fire Protection Organization	3.0
FIRE 101	Fundamentals of Fire Service Operations	3.0
FIRE 102	Fire Prevention Technology	3.0
FIRE 103	Fire Protection Equipment and Systems	3.0
FIRE 104	Fire Behavior and Combustion	3.0
FIRE 82A	Hazardous Materials First Responder	1.5
FT 81	Emergency Medical Technician	8.0
OR		
ALDH 71	Emergency Medical Technician I (Ambulance)	8.0
FIRE 95	Basic Fire Academy	10.0

FIRE COMPANY OFFICER CERTIFICATE

Awarded to the individual who has successfully completed all requirements for certification by the State Fire Marshal's Office for Fire Officer. Meets entry requirements for firefighters to the middle and upper level management positions within the agency.

Requirements
61.0 units minimum

All of the following must be completed:

		Units
FIRE 100	Fire Protection Organization	3.0
FIRE 101	Fundamentals of Fire Service Operations	3.0
FIRE 102	Fire Prevention Technology	3.0
FIRE 103	Fire Protection Equipment and Systems	3.0
FIRE 104	Fire Behavior and Combustion	3.0
FIRE 105	Fire Apparatus and Equipment	3.0
FIRE 106	Fire Company Organization and Management	3.0
FIRE 108	Fire Hydraulics	3.0
FIRE 70	Fire Instructor Training 1A	2.0
FIRE 71	Fire Instructor Training 1B	2.0
FIRE 72	Fire Command 1A	2.0
FIRE 73	Fire Command 1B	2.0
FIRE 76	Fire Management 1	2.0
FIRE 82A	Hazardous Materials First Responder	1.5
FIRE 81	Emergency Medical Technician	8.0
OR		
ALDH 71	Emergency Medical Technician I (Ambulance)	8.0
FIRE 95	Basic Fire Academy	10.0
CIS 101	Computer Literacy	4.0

Group II - Three of the following must be completed:

FIRE 107	Fire Investigation	3.0
FIRE 109	Wildland Fire Control	3.0
FIRE 61	Rescue Practices	3.0
FIRE 74	Fire Prevention 1A	2.0
FIRE 75	Fire Prevention 1B	2.0
FIRE 77	Investigation 1A	2.0

FIRE PREVENTION OFFICER CERTIFICATE

Describes an individual who has successfully completed the competencies as required for a certified fire prevention officer by the California State Fire Marshal's Office. Meets entry requirements for fire prevention specialist and/or fire prevention officer.

Requirements
30.0 units minimum
All of the following must be completed:

		Units
FIRE 100	Fire Protection Organization	3.0
FIRE 101	Fundamentals of Fire Service Operations	3.0
FIRE 102	Fire Prevention Technology	3.0
FIRE 103	Fire Protection Equipment and Systems	3.0
FIRE 104	Fire Behavior and Combustion	3.0
FIRE 107	Fire Investigation	3.0
OR		
FIRE 77 and 79	Investigation 1A and 1B	4.0
FIRE 70	Fire Instructor Training 1A	2.0
FIRE 71	Fire Instructor Training 1B	2.0
FIRE 74, 75, 78	Fire Prevention 1A, 1B, 1C	6.0
FIRE 76	Fire Management 1	2.0

Associate Degree

To earn an Associate in Science degree with a major in Fire Technology complete 18 units from any of the certificate requirements above or from any Fire Technology courses and meet all Victor Valley College graduation requirements. FIRE 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer

Not usually a transfer major. Some Fire Technology courses do transfer as Electives or fulfill subject credit requirements.

As an exception, California State University, Los Angeles offers a B.S. degree in Fire Protection Administration and Technology which requires a minimum of 15 major units to be completed in Fire Technology at a community college. See counselor for community college courses which will transfer as requirements toward the bachelor's degree. Students planning to pursue this bachelor's degree should also complete the CSU General Education-Breadth Requirements before transfer if possible.

Business Administration is also a highly recommended bachelor's degree major for people in this field who are seeking advancement. See Business Administration for transfer requirements.

FRENCH

The study of French concentrates on explaining and communicating ideas and concepts by means of reading, writing, and verbal processes through creative use of words and study of culture, literature, and civilization, with classroom emphasis on the spoken language. This study affords insight into foreign attitudes and methods and encourages free communication, written and oral, among people. For course descriptions, see Section IX of this catalog.

Career Opportunities

Advertising
Education
Government
Health Services
International Business
Journalism
Law Enforcement
Publishing
Social Work
Writing

Faculty

Full Time
Claudia Basha

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program

No certificates awarded.

Associate Degree

No associate degree offered with a major in French. French courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
French major
FREN 103, 104
Business Track: Add BADM 101 or 103, CIS 101
CSU General Education-Breadth Requirements

University of California, Riverside
French major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
Completion of IGETC recommended.

GEOGRAPHIC INFORMATION SYSTEMS (GIS)

Programs in GIS at VVC are offered under three different disciplines:

The Agriculture and Natural Resources department offers two classes and a certificate with emphasis on students developing a GIS for conservation projects in the Mojave Desert. They utilize the Environmental Systems Research Institute's suite of ARCGIS software and have an active Mobile GIS/GPS unit that uses the ARCPAD software.

The Computer Integrated Design and Graphics Department offers two classes and a certificate that emphasize GIS development in the utilities and government planning fields. They utilize AutoDesk's suite of MAP2004 software.

The Anthropology department plans to offer four classes and a certificate in GIS for the Social Sciences.

GEOGRAPHY

Geography explains and describes the Earth. Geographers look at earth-sun relationships, seasons, weather, and other physical aspects of the earth's environment such as climate, topography, earthquakes, and volcanoes. Some geographers look at the cultural landscape of the earth in terms of its people, their organizations, language, religion, and settlement patterns. All geographers compare and contrast information in order to explain similarities and differences as they occur over time and space. The framework of geography is location through the use of place names. The primary tool of geographers is the map. For course descriptions, see Section IX of this catalog.

Career Opportunities

Computer analysis of data through the use of Geographic Information Systems is a rapidly growing field which can be applicable to many employment settings. The following list is a general guideline. Most require at least a bachelor's degree.

Aerial Photographer/Interpreter
Biogeographer
Cartographer
City Planner
County Planner
Environmental Analyst
Economic Geographer
Foreign Corespondent
Foreign Correspondent Educator
Industrial Location Specialist
International Trade Relations
Marketing Analyst
Meteorologist
Population Specialist
Resource Planner
Soil Scientist
Transportation Specialist
Travel Agent

Faculty

Full Time
Carol A. DeLong
Lee Kinney

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program

No certificates awarded.

Associate Degree

No associate degree offered with a major in Geography. Geography courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Geography major
Track A & B GEOG 101 + 101L, 102
Track C (Social Science Credential Option)
ANTH 102, ECON 101, 102, GEOG 101 + 101L, 102,
HIST 103 + 104, 117, 118 or H118, POLS 102 or H102,
PSYC 1A, SOC 101, RLST 110
CSU General Education-Breadth Requirements

University of California, Riverside
Geography major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required.

GEOLOGICAL SCIENCES

Geology is the science of the world. It is a broad field encompassing such diverse specific topics as ground water management, mining, volcanic processes, and soil conservation as well as theoretical aspects within the broader fields of mineralogy, petrology, paleontology, weathering processes, plate tectonics, and geologic times. Geology necessarily extracts much of its knowledge from the related sciences of chemistry, physics, biology, meteorology, oceanography, and even astronomy. Because of its breadth, virtually no construction, manufacturing, or environmental planning can take place without considering geological or environmental principles, and there is a corresponding range of employment opportunities.

The geological sciences program is a two-year sequence designed to prepare students for continuing study at an advanced undergraduate level at a four-year college or university. For course descriptions, see Section IX of this catalog.

Career Opportunities
Mining Geologist
Environmental Planner
Ground Water Quality Manager
Petroleum Engineer
Paleontologist
Geoarchaeologist
Geological Engineer
Soil Conservationist
Metallurgist
Exogeologist (Astrogeologist)
Geomorphologist

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts
Associate in Science, Math/Science

Certificate Program
No certificates awarded.

Associate Degree
No associate degree offered with a major in Geological Sciences. Courses in Geological Sciences may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science. See Math/Science for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major.

Transfer
To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Geology major
BA: BIOL 201, GEOL 101, 102, MATH 226
One course from the following: CHEM 101, H100, 201
One group from the following: PHYS 221 + 222 or
PHYS 201, 202, 203 + H204
BS: CHEM 101, 102, GEOL 101, 102, MATH 226 + 227,
PHYS 201, 202, 203 + H204
One course from the following: BIOL 100, 201
Environmental Option: Add CHEM 206
CSU General Education-Breadth Requirements

University of California, Riverside
Geology major and Geophysics major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required. See counselor for general education requirements for College of Natural and Agricultural Sciences.

GERMAN

The study of German focuses on explanation and communication of ideas and concepts using reading, writing, and verbal processes. Classroom emphasis is on the spoken language. Culture, literature, and civilization are important aspects of study as well. This study affords insight into foreign attitudes and methods and encourages free communication, written and oral, among people.

Career Opportunities
Advertising
Education
Government, including military
Health Services
Journalism
Law Enforcement
Publishing
Scientific Research
Social Work

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Certificate Program
No certificates awarded.

Associate Degree
No associate degree offered with a major in German. German courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major.

GRAPHIC ARTS

See **Computer Integrated Design and Graphics**.

GUIDANCE

Guidance classes offered at Victor Valley College are designed to assist students in becoming goal directed and successful.

Students needing help in identifying career/educational goals or help in applying successful learning and studying techniques are encouraged to sign up for these classes. For course descriptions, see Section IX of this catalog.

HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION

See **Construction and Manufacturing Technology**.

HISTORY

History examines the processes that have made today's realities. History is an evolving record of emotion, aspiration, frustration, and success. Historians deal with the goals, fears, interests, opinions, and prejudices of people in the past. What made people the way they were? What is the impact of their thought and action on people today and what is their impact on people tomorrow? As a study of people, history offers both a necessary understanding of one's place in the human experience and the conceptual framework for a lifelong avocation. For course descriptions, see Section IX of this catalog.

Career Opportunities

Careers usually require bachelor's or advanced degrees.

Advertising/Marketing Research
Archivist/Museum Curator
Educator
Genealogist
Historian
Journalist/Writer/Editor
Lobbyist/Law Clerk/Lawyer
Management Trainee
Politician/Diplomat
Pollster
Professor
Reference Librarian
Risk Analyst
Researcher
Teacher
Writer

Faculty

Full Time
Tracy Davis
Lisa Ellis
Eric Mayer

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program

No certificate awarded.

Associate Degree

No associate degree offered with a major in History. History courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
History major
Track A (Social Science Credential Option): ANTH 102, ECON 101, 102, GEOG 101 + 101L, GEOG 102, HIST 103 + 104, HIST 117 or H117, HIST 118 or H118, POL SCI 102 or H102, PSYC 101, SOC 101
Optional: GEOG 102, RLST 110
Track B: HIST 103 + 104, HIST 117 or H117, HIST 118 or H118, CSU General Education-Breadth Requirements

University of California, Riverside
History major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
Completion of IGETC recommended.

HONORS

The honors program offers enriching experiences to improve the quality of education for academically talented students who are striving for advanced academic achievement. Honors courses are more extensive and intensive in terms of workload and material covered. They are designed to promote a deeper, more comprehensive understanding of the material and the connectedness of disciplines while preparing students to excel later in advanced degree preparation. They offer additional opportunities for independent and focused study; more individualized interdisciplinary, experimental, enhanced and collaborative learning experiences. Students participate in advanced seminars and intensive course work as well as independent projects. Students should be self-motivated and must have demonstrated superior academic achievement in either high school or college.

Victor Valley College is a member of the Honors Transfer Council of California. This membership can provide students with numerous scholarship and financial aid opportunities, as well as possible transfer advantages to participating universities, such as UCLA, UCR, UCI, Whitman College and many others.

For enrollment criteria or any other information contact the Honors Coordinator at (760) 245-4271, ext, 2363. For course descriptions, see Section IX of this catalog.

JOURNALISM

Journalism offers the interest and challenges of investigating and reporting current events and topics of interest. The discipline touches on every aspect of human affairs with the opportunity to specialize in areas such as politics, sports, economics, and international affairs. Journalistic skills demand good writing ability, creativity, curiosity, and commitment to exacting professional standards. While one typically thinks of journalists working for a newspaper, many excellent employment opportunities are offered with popular magazines, professional journals, business and industry newsletters, government agencies, and publishing houses. For course descriptions, see Section IX of this catalog.

Career Opportunities

Advertising Agency Executive
Community Relations Specialist
Copy Writer
Journalism
Promotions Manager
Public Information Officer
Publicity Director
Reporter
Television News Producer

Degrees and Certificates Awarded

Journalism Certificate

Certificate Programs

JOURNALISM CERTIFICATE

Requirements
17.0 units minimum
All of the following courses must be completed with a grade of "C" or better:

		Units
JOUR 108	Fundamentals of Journalism	4.0
JOUR 108L	Journalism Lab	4.0
ENGL 101	English Composition	4.0
PHOT 100	Beginning Photography	3.0
BET 135	Desktop Publishing: PageMaker	2.0

LAW

There is no single "prelaw" major. Research has revealed that success in law school is based more on one's ability to grasp and solve difficult intellectual problems and to employ disciplined work habits. In choosing a major, one should choose a course of study that will give broad cultural background and include intensive research. Most law students major in Business Administration, Economics, English, Liberal Studies, History, Philosophy, Political Science, or Sociology, although law schools accept any major.

Most American Bar Association (ABA) accredited law schools require a bachelor's degree and certain scores on the Law School Admission Test (LSAT) for entrance into an intensive three-year program. Students who complete law school earn the Juris Doctor (J.D.) degree and can practice law in the state of California upon passage of the California bar exam. Some law schools require only an associate degree for admission and often require completion of a four-year program.

The following sampling of ABA accredited law schools in California require sufficient scores on the LSAT and a bachelor's degree:

Pepperdine University
Stanford University
University of California
- Berkeley
- Davis
- Los Angeles

University of LaVerne
University of Southern California

LIBERAL ARTS

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Associate Degree

To earn an Associate in Arts degree with a major in Liberal Arts, complete a minimum of 18 units from the three areas of Science/Math, Humanities, and Social Science. For course descriptions, see Section IX of this catalog. A minimum of 3 units must be taken from each of the following areas:

- SCIENCE/MATHEMATICS - 3 Units Minimum
  ALDH 102*
  ANTH 101, 101L
  ASTR 101
  BIOL 70, 100, 107, 114, 126, 127, 128, 129, 120, 121, 129, 201, 202, 203, 104, 118, 109, 211, 212, 215A, 215B, 215C, 221, 231, 232, 250A
  CHEM 100, H100, 114, 120, 128, 129, 201, 201, 255, 206, H206, 207, 281, 282
  GEOG 101, 101L, 103
  GEOL 101, 102, 103, 109, 110, 112, 128, 129
  MATH 90, 104, 105, H105, 119, 120, H120, 226, H226, 227, H227, 228, H228, 270, 128, 129, 231, 132,
  OCEA 101

PSCI 101, 114, 115, 128
PHYS 100, 128, 129, 201, 202, 203, H204, 221, 222,
PE 102*

- HUMANITIES - 3 Units Minimum
  ART 101, 102, 104, 105, 106, 107, 108, 112, 113, 114, 115, 120, 121, 122, 123, 124, 150, 125, 126, 128, 129, 130, 131, 132, 133, 141, 142, 150, 151
  ENGL 102, H102, 109, 116, 125, 126, 142, 210, 211, 220, 225, 230, 231, 162, 232, 233, 235, 240, 241, 245, 246, 247
  FREN 101, 102, 103, 104, 125, 128, 129
  GERM 101, 102, 103, 104, 125
  HIST 50, 55, 60, 117, H117, 118, H118, 119, 120, 121, 124, 125, 127, 130, 131, 135, 150, 153, 155
  LATN 101, 102
  MUSC 100, 101, 102, 104, 202, 204, 103, 105, 203, 205, 112, 113, 100, 115, 116, 117, 118, 110, 111, 210, 211, 120A-J, 130, 131, 134, 135, 128, 129, 137, 139, 141, 140, 136, 145, 146, 147, 138, 122, 123, 132, 124, 125, 144, 126, 108
  PHIL 101, 108, 128, 129, 120, 121
  PHOT 100, 101, 102, 103, 104, 105, 128, 129
  PE 103
  PEDA 101, 150, 160, 161, 166, 167, 170, 171, 174, 175, 177, 266, 267, 270, 271, 274, 275
  RLST 101, 105, 106, 110, 115, 128, 129
  SPAN 101, 101A, 101B, 102, 103, 104, 110, 125, 128, 129
  SPCH 105, 122, 123, 124, 125
  TA 101, 102, 104, 106, 107, 109, 110, 111, 113, 115, 116, 117, 120, 125ABC, 128, 129, 160, 161, 166, 167, 170, 171, 174, 175, 266, 267, 270, 272, 274, 275, 276, 277

- SOCIAL SCIENCE - Minimum 3 Units
  AJ 101
  ALDH 125
  ANTH 101, 102, 103, 105, 128, 129
  CHDV 106, 146
  ECON 101, 102, 118, 128, 129
  GEOG 101 (cannot fulfill more than one area requirement), 102,
  GUID 105*
  HIST 103, 104, 115, H117, H118, 120, 121, 124, 125, 150, 130, 131, 153, 155, 157, 117, 118, 135, 127, 119, 128, 129, 145, 50, 55, 60
  POLS 50, 101, 102, H102, 112, 103, 110, 111, 120, 128, 129
  PSYC 101, H101, 102, 103, 105*, 108, 110, H110, 111, 116, 121, 125, 128, 129, 130, 133, 139, 204, 213
  SOC 101, 102, 103, 107, 128, 129
  SPCH 105

* Cross-listed courses (the same course listed under more than one department) may be counted only once. ALDH 102 and PE 102 are the same course. GUID 105 and PSYC 105 are the same course.

Transfer

The Associate in Arts degree in Liberal Arts is often a degree earned by students who are pursuing a bachelor's degree in transfer majors such as Anthropology, Economics, History, Liberal Studies, Political Science, Psychology, and Sociology. Students should also complete CSU General Education-Breadth Requirements, IGETC, or appropriate general education requirements for specific transfer major.

LIBERAL STUDIES

See "Education."

MATH/SCIENCE

Degrees and Certificates Awarded

Associate in Science, Math/Science

Associate Degree

To earn an Associate in Science degree with a major in Math/Science, complete a minimum of 18 units from the following courses:

- MATHEMATICS
  MATH 90, 104, 105, H105, 119, 120, H120, 226, H226, 227, H227, 228, H228, 270, 129, 231, 132

- LIFE SCIENCES
  ALDH 102*
  ANTH 101, 101L
  BIOL 201, 202, 203, 108, 100, 114, 129, 211, 212, 221, 231, 232, 121, 126, 127, 128, 149, 215A, 215B, 215C, 70, 104, 107, 109, 113, 118, 120
  PE 102*

- PHYSICAL SCIENCES
  ASTR 101
  CHEM 201, 202, 255, 206, 207, 281, 282, 100, H100, 114, 128, 129, 55, 120, H206, 255, 281, 282
  ELCT 57, 58, 59, 60
  GEOG 101, 101L, 103
  GEOL 101, 102, 103, 109, 110, 112, 128, 129
  OCEA 101
  PSCI 101, 114, 115, 128,
  PHYS 201, 202, 203, H204, 221, 222, 100, 128, 129

* Cross-listed courses (the same course listed under more than one department) may be counted only once. ALDH 102 and PE 102 are the same course.

Transfer

The Associate in Science degree in Math/Science is often a degree earned by students who are pursuing a bachelor's degree in transfer majors such as Biology, Chemistry, Engineering, Environmental Studies, Geology, Mathematics, and Physics. Breadth Requirements, IGETC, or appropriate general education requirements for specific transfer major.

MATHEMATICS

Mathematics is a rapidly expanding, dynamic discipline which has contributed to recent advances in astronomy, biology, chemistry, engineering, medicine and physics. Mathematics is truly becoming the necessary language of a wide spectrum of knowledge.

The mathematics program is designed to accept students at many levels of mathematical maturity and enable them to gain the mathematical knowledge necessary for them to achieve their goals. For course descriptions, see Section IX of this catalog.

Career Opportunities

An undergraduate degree in mathematics can lead to a variety of jobs in business, industry, government, and teaching. Mathematicians are employed by companies in communication, computers, energy and finance.

Faculty

Full Time
Michael Butros
Robert Carlson
Mary Lynn Doan
Patrick Malone
Arda Melkonian
Dave Moser
Cherie Reardon
Jeff Redona
Jeff Ridge
Louis Shahin
Steve Toner
Anh Tran Weis

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts
Associate in Science, Math/Science

Certificate Program

No certificates awarded.

Associate Degree

No associate degree is offered with a major in Mathematics. Mathematics courses may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science. See Math/Science for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. MATH 138 (Cooperative Education) may be used for Elective credit, but may not be used to fulfill major requirements.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Mathematics major
BA: MATH 226 + 227, 231, 228
Optional: MATH 270, CIS 201 + 202
BS: Add PHYS 201
CSU General Education-Breadth Requirements

University of California, Riverside
Mathematics major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required.

MEDIA ARTS

Digital Animation has rapidly become one of the fastest growing careers within the computer graphics industry. Victor Valley College's Media Arts courses are designed for individuals seeking training and experience ranging from fundamental concepts and principles to advanced techniques and procedures currently used in today's workplace. Designed for both the beginner and the more advanced student, the Media Arts' curriculum is geared toward those interested in creating video games, broadcast commercials, product visualizations, animated characters and logos, 3-D website graphics, and film-based special effects.

Students learn essential techniques and disciplines for producing professional quality work. Each student is immersed in simulated problem-solving situations similar to those encountered in production environments. Graduate students successfully completing the series of program courses posses entry-level skills that apply to such positions as storyboard artist, background artist, 3-D modeler, character designer, character animator, texture artist, lighting specialist, effects artist and many other exciting career opportunities.

Degrees and Certificate Programs

Digital Animation Technician I - SoftImage XSI Certificate
Digital Animation Technician I - 3ds max Certificate
Digital Animation Artist Certificate

Certificate Programs

DIGITAL ANIMATION TECHNICIAN I -SoftImage XSI' CERTIFICATE

The SoftImage XSI certificate is designed to offer students a detailed look at one of the Animation industry's premiere 3D packages. Students learn how to model 3D objects, create and apply realistic materials, study camera and lighting principles and techniques and delve into advanced keyframing (the art of making an object move). Students have the opportunity to graduate having completed several animated projects, in addition to a solid understanding of the history of Animation and the traditional Animation principles that go into making an individual's work look both realistic and believable.

Requirements
9.0 units minimum
All of the following must be completed with a grade of "C" or better.

		Units
MERT 50	Principles of Animation	3.0
MERT 51	Intermediate Modeling and Animation with SoftImage XSI	3.0
MERT 52	Digital Character Animation	3.0

DIGITAL ANIMATION TECHNICIAN I - 3ds max CERTIFICATE

The 3ds max certificate is designed to offer an in depth look at another of the Animation industry's premiere 3 D software applications; 3ds max. Course curriculum will mirror that of the SoftImage XSI certificate, with the difference between the two certificates being the software application taught.

Requirements
9.0 units minimum
All of the following must be completed with a grade of "C" or better.

		Units
CIDG 160	3ds max Fundamentals	3.0
CIDG 260	3ds max Advanced Modeling and Materials	3.0
CIDG 261	3ds max Advanced Animation and Effects	3.0

DIGITAL ANIMATION ARTIST CERTIFICATE

The new Digital Animation Artist certificate is designed to expand an individual's knowledge in animation, giving them the traditional art principles and practices that will help them become a well-rounded animator. Employers often prefer computer animators who have the ability to draw and understand traditional art concepts and principles. By earning the Digital Animation Artist certificate, graduates will better position themselves of traditional art courses that include drawing and composition, life drawing and sculpture. An additional course specific to learning Adobe Photoshop is also required to earn certification.

Requirements
15.0 units minimum

Group I - Animation Track
Choose between software package options I or II
All of the following must be completed with a grade of "C" or better.

Option 1:	**3ds Max**	**Units**
CIDG 160	3ds max Fundamentals	3.0
CIDG 260	3ds max Advanced Modeling and Materials	3.0
CIDG 261	3ds max Advanced Animation and Effects	3.0
PHOT 52	Introduction to Photoshop	3.0

Option 2:	**SoftImage XSI**	
MERT 50	Principles of Animation	3.0
MERT 51	Intermediate Modeling and Animation with SoftImage XSI	3.0
MERT 52	Digital Character Animation	3.0
PHOT 52	Introduction to Photoshop	3.0

Group II - Art Track
Choose any ONE of the following courses.
Each course must be completed with a grade of "C" or better.

		Units
ART 101	Survey of Art History	3.0
ART 104	Film as an Art Form	3.0
ART 112	Design I	3.0
ART 113	Design II	3.0
ART 122	Survey of Art History	3.0
ART 124	Film as an Art Form	3.0
ART 125	Drawing and Composition	3.0
ART 141	Sculpture I	3.0

MEDICAL AND HEALTH PROFESSIONS

The programs of study in the following medical and health professions are not offered at Victor Valley College, but preparatory courses needed for transfer into these majors are offered as outlined below.

Athletic Training

Athletic training is a growing profession that involves evaluation, management, and rehabilitation of athletic injuries. It is also the organization and administration of athletic training programs, as well as the education and counseling of the athlete. This program of study was recently endorsed by the American Medical Association as an allied health profession.

Athletic Training programs are usually offered as an option under Physical Education majors at most universities. Students should fulfill all transfer requirements for a Physical Education major and complete the following:

BIOL 211 or 212, CHEM 100 or PHYS 100, BIOL 231 or 232, PSYC 101

Chiropractic Medicine

Chiropractic Medicine places the emphasis on spinal manipulation and neuromuscular treatments as the means of restoration and preservation of health. Chiropractors diagnose health problems, provide care and consult with other health care providers. For admission into an accredited Chiropractic Medicine program of study, a student should have a minimum of 75 semester units and complete the following requirements:

BIOL 201, 211 or 212, CHEM 101, 202, ENGL 101, 102 or SPCH 109, PHYS 2A, 221, 222, PSYC 101
15 semester units from Social Sciences and Humanities

The following four schools are the only California colleges accredited by American Chiropractic Association:

Cleveland Chiropractic College, Los Angeles
Life Chiropractic College-West, San Lorenzo
Los Angeles College of Chiropractic
Palmer College of Chiropractic, Sunnyvale

Dental Hygiene

Dental hygienists provide educational and clinical services for patients, including dental health education and disease prevention procedures, obtaining and recording patients' medical and dental histories, scaling and polishing teeth, recording conditions of patients' mouths and teeth, exposing and processing dental x-ray films, nutritional counseling, and applying fluoride and pit and fissure sealants for prevention of decay. Dental Hygiene is a rapidly growing profession and is emerging as a vital, highly respected component of dental health.

The following three schools are the only California colleges accredited by Commission on Dental Accreditation which award a bachelor's degree:

Loma Linda University
University of California, San Francisco
University of Southern California

Before admission into the Dental Hygiene program at University of Southern California, students must have graduated from an accredited secondary school, have a minimum of 60 semester units of transferable course work, rate sufficiently high on the Dental Hygiene Aptitude Test (DHAT), and complete all course requirements as follows:

University of Southern California
Dental Hygiene major:
CHEM 201, 202, ENGL 101, 102, PSYCH 101, SOC 101, SPCH 109
Two courses from: BIOL 201, 211 or 212, 221, PHYS 201 or 202
Other courses recommended to complete 60 required units: CHEM 206 in addition to other chemistry requirements, BIOL 211 in addition to other biology requirements, SPAN 101, 102, 103, 104 , ENGL 245, 246, PHIL 101, 207, 108, 109, ART 101, 102, 105, 106, MUSC 100.

A handout with all transfer requirements for a B.S. degree in Dental Hygiene from Loma Linda University is available in Counseling. No appointment is necessary to receive a copy of these requirements.

Dentistry

Dentists provide comprehensive dental treatment to patients including oral and maxillofacial surgery, endontics, orthodontics, and restorative processes.

Students must have graduated from an accredited secondary school, complete a minimum of 90 semester units of transferable course work, score sufficiently high on the Dental Admission Test (DAT), and meet the following minimum requirements:

BIOL 211 or 212, CHEM 201 , 202, 206+207 or 281+282, ENGL 101, MATH 104, 105, 226, PHYS 221, 222, SPCH 109
Choose two courses from these biology courses: BIOL 201, 202, 231 or 232, 221

The following five schools are the only California colleges accredited by the Commission on Dental Accreditation:

Loma Linda University
University of California, Los Angeles
University of the Pacific
University of California, San Francisco
University of Southern California

A handout with all transfer requirements for a D.D.S. degree in Dentistry from Loma Linda University is available in counseling. No appointment is necessary to receive a copy of these requirements.

Medicine

Doctors of Medicine manage the diagnosis, treatment, and prevention of disease and injuries of individuals to restore them back to optimal health. Treatment may include surgery, various treatment methods, conferring with other specialists, and prescribing appropriate drugs. Physicians also research the causes, transmission, and control of diseases and other ailments.

Medicine is a highly competitive field and acceptance into medical school is based on a combination of preparatory courses completed, GPA, letters of recommendation, and sufficiently high scores on the Medical College Admissions Test (MCAT).

Students must complete the following minimum admission requirements for medical school: BIOL 201, 202, 203, CHEM 201, 202, 281, 282, ENGL 101, 102, MATH 104,105, 226, 227, PHYS 221, 222
In addition, courses from the following are highly recommended: CHEM 206, 207, CIS 101, MATH 120, SPAN 101,102, 103, 104
A minimum of 90 semester units, at least 20 of which must be upper division from a four-year university.

The following eight medical schools in California are accredited by the Liaison Committee on Medical Education (LCME) of the American Medical Association (AMA):

Loma Linda University
Stanford University
University of California
Davis
Irvine
Los Angeles
San Diego
San Francisco
University of Southern California

Entrance requirements may vary slightly from college to college. For example, USC requires a minimum of 120 semester units of academic course work. Students pursuing a medical degree should send off for entrance requirements and information from every school to which they plan to apply.

Most students who are admitted into medical school have a bachelor's degree. Since requirements for medical school places emphasis on biology and chemistry, most students choose to pursue a bachelor's degree in biology or chemistry.

Occupational Therapy

Occupational Therapists look at the psychological and social concerns, as well as physical factors, to assist physically disabled people relearn and adapt basic motor skills. Occupational Therapists use everyday (occupational) activities as a means of helping those people achieve independence, focusing on critical daily tasks ranging from dressing to employment tasks.

Only three California colleges offer programs accredited by the American Occupational Therapy Association (AOTA). The following award a bachelor's degree in Occupational Therapy:

Loma Linda University
San Jose State University
University of Southern California

Because the entrance requirements, prerequisites, and program components differ from college to college, students should send off for specific information about the programs from each college to which they plan to apply.

A handout with all transfer requirements for a B.S. degree in Occupational Therapy from Loma Linda University is available in the counseling department.

Occupational Therapy Assistant

Occupational therapy assistants (COTA) work under the guidance of occupational therapists to carry out treatment programs for many different kinds of patients. The COTA enjoys a job that uses creative, personal, and technical skills; works with people of all ages with many kinds of health problems; uses specialized job skills developed in classroom and clinical experiences; benefits from a career with excellent employment opportunities; and shares a respected position as an important member of the health care team.

The following California colleges offer associate degrees in Occupational Therapy Assistant:

Loma Linda University

A handout with all transfer requirements for an associate degree from Loma Linda University is available in the VVC Counseling Department. No appointment is necessary to obtain a copy of these requirements.

Optometry

Optometry is a health care profession that focuses on the prevention and remediation of disorders of the vision system. Optometrists examine, diagnose and treat eye diseases, determine appropriate prescriptions for glasses and contacts, and handle the overall eye care of a patient.

The following California schools offer programs leading to a Doctor of Optometry (O.D.) degree:

Southern California College of Optometry
University of California, Berkeley

Entrance into the Doctor of Optometry degree program requires graduation from an accredited secondary school, sufficient scores on the Optometry Admissions Test (OAT), completion of a minimum of 90 units of which 20 must be from a four-year university, and the entrance requirements. The following must be completed with a grade of "C" or better prior to transfer:

Southern California College of Optometry, Fullerton
Doctor of Optometry program
BIOL 201, 202, 203, CHEM 201, 202, 206 or 281, ENGL 101, 102, MATH 104, 105, 120, 226, BIOL 221, PHYS 221, 222, PSYC 101,110

Osteopathic Medicine

A Doctor of Osteopathic Medicine (D.O.) diagnoses and treats diseases and injuries of the human body, relying upon accepted medical and surgical modalities. The emphasis of osteopathic medicine is holistic medicine.

The College of Osteopathic Medicine of the Pacific is the only California college accredited by the Council of Allied Health Education of the American Medical Association.

Entrance into the intense four-year program is based on a minimum requirement of 90 semester units or 3/4 toward a bachelor's degree and completion of the following admission requirements:

Western University of Health Science
Doctor of Osteopathic Medicine program
CHEM 201, 202, 281, 282, ENGL 101, 102, BIOL 221, PHYS 221, 222
Choose two courses from the following: BIOL 211 or 212, BIOL 201, 202, 203, 104, BIOL 231 or 232

Pharmacy

A pharmacist compounds and dispenses prescribed medications, drugs, and other pharmaceuticals for patient care, closely following professional standards and state and federal legal requirements.

Doctor of Pharmacy degrees:
University of the Pacific (Stockton):
BIOL 201, 202, CHEM 201, 202, 281, 282, ECON 101, ENGL 101, 102, MATH 226, PHYS 201, 221, PSYC 101
Choose one course from: ANTH 102, GEOG 102, HIST 130, 131, 135, RLST 110
Choose one course from: HIST 103, 104, PHIL 101, 108, 120, 121, RLST 101, 105, 106
Choose one course from: ART 101, 102, 105, MUSC 102,100, PE 150, PHOT 100, TA101, TA 106

University of Southern California (Los Angeles):
BIOL 201, 202, CHEM 201, 202, 281, 28, ENGL 101, 102, MATH 226, SPCH 109, ECON 101 or 102, PSYC 101, six units from humanities, twelve units from social science
A minimum of 60 semester hours.
Only grades of C- or higher accepted.

Western University of Health Sciences (Pomona):
ENGL 101; either ENG 102, 104 or 109; MATH 105 or higher (calculus); MATH 120; ANAT 101; BIOL 231; BIOL 221; CHEM 201 + 202; AND 9 units of Humanities and/or SOCIAL SCIENCES, chosen from ANTH, SOC, PSYC, TA, MUSC, ART.

Physical Therapy

Physical Therapists evaluate neuromuscular, musculoskeletal, sensory-motor, and related cardiovascular and respiratory functions of the patient. They perform and interpret tests and measurements of these functions and abilities as an aid in the treatment of the patient.

Physical Therapy is a highly competitive transfer major which is impacted at many universities. Fulfilling all minimum requirements for admission to this program, maintaining a high GPA, and strong letters of recommendation are important in the selection process.

The following courses are minimum requirements for the Physical Therapy major at most universities: BIOL 211 or 212, BIOL 201, 202, 203, CHEM 201, 202, 281, 282, MATH 120, PHYS 221, 222, BIOL 231 or 232, PSYC 101, 110

The following nine California colleges offer bachelor's degree or master's degree programs accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE):

California State University
Fresno
Long Beach
Northridge
Chapman College
Loma Linda University
Mount St. Mary's College
University of California, San Francisco
University of the Pacific
University of Southern California

A handout with all transfer requirements for a Master of Physical Therapy degree from Loma Linda is available in the Counseling Department. No appointment is necessary to receive a copy of these requirements.

Because each college varies as to what it requires, students should request entrance requirements for each of the above colleges to which they plan to apply. A counselor can then help a student determine which Victor Valley College courses meet specific requirements.

Physical Therapist Assistant

The physical therapist assistant is a skilled technical health worker who, under the supervision of a physical therapist, assists in the patients' treatment program. The extent to which the physical therapist assistant is involved in treatment depends upon the policies of the health facility, the supervising therapist, and the patient.

The following California colleges offer associate degrees in Physical Therapist Assistant:

Loma Linda University.

A handout with all transfer requirements for an associate degree from Loma Linda University is available in the VVC Counseling Department. No appointment is necessary to obtain a copy of these requirements.

Physician Assistant

A physician assistant (PA) is a skilled health care professional who, under the supervision of a physician, performs a variety of medical, diagnostic and therapeutic services. Most physician assistants routinely elicit complete medical histories and perform comprehensive physical examinations. They treat patients with common acute problems such as infections and injuries, perform minor surgical procedures, and provide ongoing care for common chronic problems such as arthritis, hypertension and diabetes.

Only 50 accredited PA programs exist throughout the country with the usual program requiring 24 months to complete. Most PA students earn a bachelor's degree, although an increasing number of PA programs award master's degrees upon completion of the program.

Upon graduation from an accredited PA program, students take an examination given by the National Commission on Certification of Physician Assistants (NCCPA) and achieve national certification by passing the exam. Certified Physician Assistants (PA-C) must be retested every six years.

Admission into the PA programs requires a minimum of 60 semester units. The following course requirements must be completed before transfer:

BIOL 211 or 212, 231 or 232, CHEM 100, ENGL 101, 102, MATH 105, PSYC 101, 12 units from humanities
Choose one course from: BIOL 201, 202, 203, 100, BIOL 221

The following five California colleges offer physician assistant programs accredited by the Committee on Allied Health Education and Accreditation (CAHEA) of the American Medical Association:

Charles Drew University, Los Angeles
College of Osteopathic Medicine, Pomona
Stanford University
University of California, Davis
University of Southern California

Because the requirements for each program vary slightly, students who are serious about pursuing a career as a physician assistant should send for an application and admission requirements from each college to which they plan to apply. Counselors will help students determine which Victor Valley College courses meet these requirements.

Podiatry

Podiatry is a specialty in medicine and surgery. A podiatrist is concerned with the prevention, diagnoses, and treatment of diseases and disorders which affect the human foot and contiguous structures. The College of Podiatric Medicine in San Francisco is the only accredited program in California which offers this four-year program in Podiatry or Podiatric Medicine (D.P.M.).

Students must complete a minimum of 60 units before transfer, take the College of Podiatry Admission Test (CPAT), and meet the following transfer requirements:

California College of Podiatric Medicine, San Francisco
Doctor of Podiatric Medicine program
BIOL 201, 202, CHEM 201, 202, ENGL 101, 102, PHYS 221
Other courses selected from: BIOL 211 or 212, HIST 117, 118, POLS 102, PSYC 101, SOC 101

Radiologic Technology

The radiologic technologist (x-ray technician) is responsible for the accurate demonstration of body structures on a radiograph or other receptor. The technologist determines proper exposure factors, manipulates medical imaging equipment, evaluates the radiographic quality, and provides for patient protection and comfort.

Most radiologic technology programs are two-year programs with students earning an associate degree upon completion of the program.

Radiologic technologists may choose to train further in the areas of medical sonography, nuclear medicine technology, radiation therapy technology, and special imaging technology.

Entrance requirements vary slightly from college to college. Students should send off for requirements for each college to which they plan to apply.

Students need to complete the following courses before transfer into Chaffey College's radiologic technology program:

Chaffey College Radiologic Therapy
ALDH 139 , BIOL 211 or 212, CHEM 100 or PHYS 100, ENGL 101, MATH 10 or show competency of basic math or MATH 10, MATH 50, POLS 102, SPCH 109, one course in the arts, one course in humanities, one course in social sciences, one course in a multi-cultural/gender studies.

A handout with all transfer requirements for an A.S. degree in Medical Radiography and a B.S. degree in Radiation Technology from Loma Linda University is available in counseling. No appointment is necessary to receive a copy of these requirements.

Speech-Language Pathology and Audiology

Speech-language pathologists are concerned with evaluating and treating children and adults with communication disorders. Difficulties in the areas of speech, language, fluency, and voice are associated with a variety of disorders, including developmental delay, hearing impairment, cleft palate, cerebral palsy, stroke, and head injury. Audiologists are concerned with prevention, identification, assessment, and rehabilitation of hearing disorders. For both professions, it is important that the student have an interest in working with people.

The following California colleges offer bachelor's degrees or master's degrees in Speech Pathology and/or Audiology:

California State University (several campuses)
Loma Linda University

Sports Medicine

The field of Sports Medicine deals with understanding the role of science in exercise and health promotion. Programs in Sports Medicine provide a sound knowledge of the scientific principles of maintaining, enhancing, and rehabilitating the body through the medium of exercise and sport.

Only a few universities offer a major in Sports Medicine or even a Sports Medicine option within a physical education or health-related degree. Pepperdine University offers one of the few B.S. degrees in Sports Medicine. To pursue a bachelor's degree, the following course work should be completed prior to transfer:

Pepperdine University Sports Medicine major
BIOL 211 or 212, 231 or 232, CHEM 201, 202, ENGL 101, 102, MATH 105, PHYS 221, 222
Complete general education requirements of specific university including at least 9 units of humanities and 9 units of social sciences. See Pepperdine catalog for general education requirements.

Veterinary Medicine

Veterinary medicine is the health profession that deals with the scientific knowledge and decision-making process that culminate in the diagnosis, treatment and prevention of animal diseases. The profession is concerned with enhancing the health, welfare, productivity and utility of animals as well as with the safety of animal products used by people.

Students completing a veterinary medicine program approved by the Board of Examiners in Veterinary Medicine earn a Doctorate of Veterinary Medicine (DVM). The University of California, Davis offers the only accredited veterinary medicine program in California.

Veterinary medicine is a highly competitive program. Acceptance to this program is based on GPA, scores on the Graduate Record Examination (GRE) and any additional examinations, and completion of a minimum of 72 semester units from an accredited college to include the following entrance requirements:

BIOL 201, 202, 203,CHEM 201, 202, 281, 282, ENGL 101, 102, MATH 104, 120, PHYS 221, 222. 12 units from anthropology, art, history, music, philosophy, psychology, sociology to fulfill humanities and social science general education requirements. Additional upper division required sciences must be taken at a four-year university.

As with many specialized medical programs, the majority of those accepted have already earned a bachelor's degree before admission. Students pursuing veterinary medicine usually choose a major in one of the fields of animal science, biological sciences, or chemistry.

MEDICAL ASSISTANT

The Medical Assistant is a professional, multi-skilled person dedicated to assisting in patient care management. The practitioner performs administrative and clinical duties and may manage emergency situations, facilities, and/or personnel. Competence in the field also requires that a medical assistant display professionalism, communicate effectively, and provide instructions to patients.

The medical assistant program is a one-year program that is designed to prepare students to work effectively in a physician's office, medical records or business office of a clinic or a hospital. Upon completion of the required courses, the student will demonstrate proficiency in both front and back office procedures. Successful completion of the program leads to a Certificate of Achievement. For course descriptions, see Section IX of this catalog. See Medical Office under Business Education Technologies for a program with more emphasis in front office.

Career Opportunities

Medical Assistant
Patient Account Representative
Receptionist
Medical Secretary
Medical Records Technician

Faculty

Full Time
Diego Garcia

Degrees and Certificates Awarded

Associate in Science, Medical Assistant
Medical Assistant Certificate

Certificate Program

MEDICAL ASSISTANT CERTIFICATE

This certificate prepares students for an entry-level position in a physician's office, clinic, or medical records.

Requirements
23.5 units minimum

		Units
ALDH 139	Medical Terminology	3.0
ALDH 80	Pharmacology	3.0
ALDH 81	Medical Insurance	3.0
ALDH 82	Medical Office Procedures	3.0
ALDH 82C	Medical Office Procedures/Clinical	5.0
ALDH 91	Basic CPR	0.5
BET 103	Beginning WordProcessing/Typing-WordPerfect for Windows A/B/C	3.0
OR		
BET 104	Beginning Word Processing/Typing-Word for Windows A/B/C	3.0
PSYC 110	Developmental Psychology	3.0

Associate Degree

To earn an Associate in Science degree with a major in Medical Assistant, complete the certificate requirements above, three additional units in Allied Health, and meet all remaining Victor Valley College graduation requirements.

Transfer

Not a transfer major. Some Allied Health courses transfer as Electives or fulfill subject credit requirements.

MUSIC

Music is the study of the language of sound and its effect on the minds and souls of creator, performer and listener. It is one of the few academic disciplines to deal extensively with the development of the creative side of personhood; in that sense it is one of the most wholly "human" of the humanities. The creative problem-solving skills and discipline of music studies prepare students for a wide range of life's activities and pursuits. The Music Department offers a wide range of classes, providing opportunities for transfer music majors, music for general studies students, and the opportunity for student and community musicians of all skill levels to participate in a wide variety performance ensembles. For course descriptions, see Section IX of this catalog.

Career Opportunities

Accompanist
Announcer
Composer/Arranger
Educator
Instrumentalist
Music Publisher
Music Sales Business
Musician
Private Music Teacher
Studio Engineer
Vocalist

Faculty

Full Time
David Graham
Thomas E. Miller

Degrees and Certificates Awarded

Associate in Arts, Fine Arts
Associate in Arts, Liberal Arts

Certificate Program

No certificate awarded.

Associate Degree

No associate degree offered with a major in Music. Music courses may be used to fulfill requirements for an Associate in Arts degree with a major in Fine Arts. See Fine Arts for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. MUSC 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer

Transfer music majors are required to begin major courses at the freshman level. Music majors will take the following music courses in preparation for transfer to a four-year institution: MUSC 102, 103, 104, 105, 106, 110, 111, 202, 203, 204, 205, 206, 210, 211, and the appropriate applied music studies from MUSC 120-J. In addition, music majors must be enrolled in the appropriate performance ensemble each semester. The Music Department offers periodic workshops for transfer majors to insure that students are aware of the curriculum requirements of transfer institutions and such additional concerns as concert attendance, juries, entrance proficiency exams and scholarship and performance auditions.

To pursue a bachelor's degree at these specific universities below, complete the following courses prior to transfer along with the above recommended if possible:

California State University, San Bernardino
Music major
MUSC 102, 104, 103, 105, 210
Optional: MUSC 122
CSU General Education-Breadth Requirements

University of California, Riverside
Music major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
Completion of IGETC recommended.

NURSING

The Associate Degree of Science in Nursing is approved by the California Board of Registered Nursing. The graduate is eligible to take the National Council for Licensure Examination for Registered Nursing (NCLEX-RN) and, upon successful completion, becomes eligible for licensure as a Registered Nurse in the state of California.

California law allows for the denial of Registered Nurse Licensure on the basis of any conviction or action substantially related to nursing practice. The California Board of Registered Nursing requires applicants for licensure with prior convictions to provide proof of rehabilitation before taking the NCLEX-RN that establishes fitness for performing nursing functions. For further clarification, contact the Nursing Department or the California Board of Registered Nursing.

The Associate Degree Nursing Faculty accepts and operates within the framework of the philosophy and mission of Victor Valley College. The conceptual framework is based on the systems and change theory using the Nursing Process. The components of the curriculum are arranged around the client's bio-psych-social, and cultural/spiritual beliefs. The faculty believes that the student is an adult learner who is expected to take an active role in the learning process.

Separate application must be made into the nursing program. Several admission and progression options are available, including generic, advanced placement, transfer, non-graduate and 30 unit option. Specific information is available in the application packet, the student nurse handbook and from the program director. Please contact the Nursing Department for fall and spring application dates. For course descriptions, see Section IX of this catalog.

Prerequisites for admission into the nursing program.

1. Human anatomy (equivalent to Victor Valley College BIOL 211 or 212), 4-5 units completed with a grade of "C" or better.
2. Human physiology (equivalent to Victor Valley College BIOL 231 or 232), 4-5 units completed with a grade of "C" or better.
3. Microbiology (equivalent to Victor Valley College BIOL 221) 5 units with a grade of "C" or better.
4. Program prerequisites must be completed prior to application.

Enrollment Process

After the prerequisites have been verified and there are still too many students for the spaces available, those accepted into the program will be based on the enrollment criteria. The enrollment process is based on the recommended Best Practice for Enrollment prepared by the Chancellor's Office of the California Community Colleges, and approved by the Chancellor's Office. Please contact the Nursing Department or Nursing Counselor for further clarification of the enrollment process.

NOTE:

1. Prior to admission to the ADN program, students must demonstrate physical health as determined by a history and physical examination.
2. To continue in the program, the students must submit a current physical and meet required immunizations, titers, and have a chest X-ray and/or PPD. Also, a current American Heart Association Health Care Provider CPR Certificate, or equivalent, must be obtained and current. Current liability insurance and criminal background checks are required in order to comply with the program and clinical agencies' contractual requirements. Per individual facility requirements, random drug testing may also be required.
3. The College does not provide transportation to and from required clinical facilities.
4. In order to continue in the ADN program students must earn a minimum grade of C in all nursing and other required courses.
5. Nursing courses have specific prerequisites. Refer to course descriptions in this catalog.

Career Opportunities

The graduate is prepared to practice nursing at any entry level in the following settings:
Medical/Surgical Nursing
Psychiatric Nursing
Maternal/Newborn Nursing
Post-Anesthesia Nursing
Perioperative Nursing
Geriatric Nursing
Critical Care Nursing
Rehabilitation Nursing
Neurosurgical Nursing
Oncology Nursing

Faculty

Full Time
Diane Cline
Starlie Cuna
Diego Garcia
Maggie Keil
Alice Ramming
Sharon Satchell
Sally Thibeault
Terry Truelove

Degrees and Certificates Awarded

Associate in Science, Nursing
Associate Degree Nursing Certificate
Nursing Licensure Certificate

Certificate Programs

ASSOCIATE DEGREE NURSING CERTIFICATE

Requirements
74.0 units minimum
Group A: All of the following must be completed:

		Units
NURS 220	Pharmacology and Nursing Management	2.0
NURS 221	Nursing Process 1	10.0
NURS 222	Nursing Process 2	9.0
NURS 223	Nursing Process 3	9.0
NURS 224	Nursing Process 4	9.0
BIOL 211	Human Anatomy	5.0
OR		
BIOL 212	Human Anatomy	4.0
BIOL 221	General Microbiology	5.0
BIOL 231	Human Physiology	5.0
OR		
BIOL 232	Human Physiology	4.0
ENGL 101	English Composition and Reading	3.0
PSYC 101	General Psychology	3.0
PSYC 110	Developmental Psychology	3.0
SOC 101	Introduction to Sociology	3.0

Group B: One of the following must be completed:

SPCH 106	Human Communication	3.0
SPCH 107	Family Communication	3.0
SPCH 108	Group Discussion	3.0
SPCH 109	Public Speaking	3.0

Group C: One of the following must be completed: (3 units)
One course which meets the VVC Mathematics general education requirements for Category V (See page 48)

Group D: One of the following must be completed: (3 units)
One course which meets the VVC Humanities general education requirement for Category III (See page 48)

Group E: One of the following must be completed: (1 unit)
One Physical Education Course

Each class must be completed with a grade of "C" or better.

Any course which meets the general education transfer requirements to the CSU or UC system may be used as a general education requirement for the associate degree in Groups III and IV.

NURSING LICENSURE CERTIFICATE

Requirements
67 units minimum

		Units
BIOL 211 or 212	Human Anatomy	4.0-5.0
BIOL 231 or 232	Human Physiology	4.0-5.0
BIOL 221	General Microbiology	5.0
SOC 101	Introduction to Sociology	3.0
PSYC 101	General Psychology	3.0
PSYC 110	Developmental Psychology	3.0
SPCH 106, 107, 108, or 109	Human Communication, Family Communication, Group Discussion or Public Speaking	3.0
ENGL 101	English Composition and Reading	3.0
NURS 220	Pharmacology and Nursing Management	2.0
NURS 221	Nursing Process 1	10.0
NURS 222	Nursing Process 2	9.0
NURS 223	Nursing Process 3	9.0
NURS 224	Nursing Process 4	9.0

EACH CLASS MUST BE COMPLETED WITH A GRADE OF "C" OR BETTER.

Placement Options

1. **GENERIC STUDENTS are those who will complete the entire nursing program at Victor Valley College.** The application is submitted, and after approval, class selection is made according to the current enrollment process.

2. **TRANSFER STUDENTS are those who transfer nursing units from another college.** The education code allows one to transfer only lower division units to a community college. Each student requesting transfer of Nursing units will be individually evaluated by the Nursing Program Admission, Promotion and Program Effectiveness (AEPE) Committee to determine appropriate placement in the VVC Program. Placement will be made on a space available basis and be determined by the curse content and number ofnursing degree units completed. A Prioity Transfer List will be established according to the Policy for Nursing Program Transfer. Students will be given credit for general education courses according to the college's published policy (see College Catalog). If the student has earned a non-progression grade (D or F) in a registered nursing at another school, acceptance to Victor Valley College Nursing Program will be considered their second chance.

3. **ADVANCED PLACEMENT STUDENTS (LVN to RN) are those documented as a Licensed Vocational Nurse in California.** Students choosing this option must apply to the program, meet the prerequisites, and take the challenge exams for NURS 220 (Pharmacology and Nursing Management), NURS 221 (Nursing Process 1), and NURS 222 (Nursing Process 2). Advanced placement students must pass the challenge exams for NURS 221. Students are also required to pass (C or better) NURS 225 LVN to RN transition course. Placement into 2nd or 3rd semester is determinted by student scores on the challenge exams. Depending on the number of applicants, acceptance into the transition course may be based on the program's entry policy (Nursing Student Handbook). Applications for this option are accepted in the spring.

4. **CHALLENGE STUDENTS.** Students admitted to the Nursing Program with previous documented experience may be allowed to challenge certain specified content areas. (Education Code, Section 5557537), Title 5 of the California Administrative Code. Refer to current college catalog.) (Contact the Director of Nursing regarding this option.)

5. **THIRTY-UNIT OPTION** is available to California Licensed Vocational Nurses. The Board of Registered Nursing regulation 1435.5 provides the option of completing 30 semester units in Nursing and related science courses. In order to enter this option the applicant must: 1) have a current California Vocational Nurse License (LVN); 2) have previously completed Human Physiology, 4 or 5 units with a lab, and Microbiology, 4 or 5 units with a lab. (Contact the Director of Nursing regarding this option.)

6. **NON-GRADUATE OPTION** allows students to complete only those classes required to take the NCLEX exam. In the Victor Valley Community College Nursing Program those classes are:

BIOL 211	SOC 101	SPCH 106, 107, 108, or 109
BIOL 231 or 232	PSYC 101	ENGL 101
BIOL 221	PSYC 110	NURS (5 classes)

For detailed information regarding the Victor Valley College, Associate Degree Nursing Program Placement/Advancement Policy, please refer to the current ADN Program Student Handbook.

Associate Degree

To earn an Associate in Science degree with a major in Nursing one must complete all certificate courses and meet all Victor Valley College graduation requirements. The Associate Degree Nursing Certificate includes all requirements for both a certificate and an Associate in Science degree in Nursing. The Nursing Licensure Certificate requires additional general education courses to complete an associate degree. The Nursing Licensure Certificate precludes receiving the Associate Degree in Science with a major in nursing.

Transfer

Acceptance into a baccalaureate of science degree in Nursing is based on completion of prerequisites and entrance requirements. To pursue a BSN complete the following requirements prior to transfer.

California State University, Dominguez Hills
RN to BSN program

1. Minimum of 56 semester units of transferable college credit with a grade point average of at least 2.0 (C) or better in all transferable course work (non-residents, 2.4) and have satisfied any high school subject deficiency in English and mathematics by equivalent course work (the maximum transferable credit accepted from a two-year college is 70 semester units). English composition, Speech, GE Math and Logic/Critical Thinking must be completed prior to admission for new applicants.
2. Current RN licensure in the United States or equivalent or an RN interim permit.

California State University, San Bernardino
BSN program

1. Completion of an application to the university and nursing program
2. Attendance at a group advising session
3. Completion of the following prerequisites:
   BIOL 211 or 212 + BIOL 231 or 232, BIOL 221, CHEM 100 OR H100, MATH 105 or H105 or MATH 132, SPCH 109, ENGL 101
   One course from the following: PHIL 207, 209, ENGL 104
4. Additional support courses: PSYC 110
5. 3.0 GPA minimum
6. "C" or better on all course work

NURSING ASSISTANT

See Allied Health for certificate information.

PARALEGAL STUDIES

A paralegal works in a paraprofessional capacity as an assistant to an attorney in a private law firm, governmental agency industry, or private association. The paralegal performs many tasks normally handled by an attorney, such as preparing forms, writing memoranda, interviewing clients, researching legal matters, managing the law office, and a variety of other tasks. There are also self-employed paraprofessionals who work for attorneys on request.

The Paralegal Studies Certificate program at Victor Valley College is designed for students pursuing paraprofessional careers in the legal field. There are two types of such paraprofessionals.

Paralegal: Pursuant to California Assembly Bill 1761, a person may use the title "paralegal" only when they have obtained the required educational qualifications and they work directly under the supervision of a licensed California attorney.

Legal Document Assistant: Pursuant to California Senate Bill 1418, independent non-attorneys who provide law-related services to the public for compensation must register with the county clerk as a "Legal Document Assistant," and may not use the term "paralegal" in reference to themselves or their service. (For more information on the LDA registration process, contact the California Association of Legal Document Assistants at www.caip.org).

It is *strongly recommended* that students complete ENGL 101 and Political Science 1B before they begin taking paralegal courses so that they will have a firm foundation in writing skills and a basic understanding of the American legal system at the state and national levels of government. It is *further recommended* that students first complete (or at least concurrently enroll in) POLS 130, Introduction to Paralegalism, before continuing with other paralegal courses.

This is not a four-year transfer program, it is not transferable for advanced standing in a law school, and is not designed to be a "pre-law" program. The Paralegal Studies Certificate is not equivalent to a law school (J.D. degree) program, and thus, does not serve as a preparation for the bar exam. See a counselor for transfer requirements to other institutions.

Students must complete a minimum of 33 units, with at least 15 units taken in residence at Victor Valley College, with a minimum grade of "C" in all paralegal classes.

Requirements
33 units minimum
Group I--All of the following must be completed

		Units
POLS 130	Introduction to Paralegalism	3.0
POLS 131	Fundamentals of Litigation for Paralegals	3.0
POLS 132	Legal Research and Writing for Paralegals	3.0
POLS 133	Legal Ethics for Paralegals	3.0
POLS 134	Family Law For Paralegals	3.0
POLS 135	Tort Law for Paralegals	3.0
AJ 103	Criminal Law	3.0
BADM 117	Legal Environment of Business	3.0

Group II--At least 9 units of the following must be completed

		Units
AJ 102	Criminal Procedures	3.0
AJ 104	Legal Aspects of Evidence	3.0
BADM 101	Elementary Accounting	
OR 103	Principles of Accounting	3-4.0
BADM 111	Introduction to Public Administration	3.0
BADM 72	Internal Revenue Service Procedures and Taxpayer Bill of Rights	3.0
BRE 110	Legal Aspects of Real Estate I	3.0
BET 103A, 103B, 103C	Beginning Word Processing/Typing Word Perfect for Windows	3.0
OR		
BET 104A, 104B, 104C	Beginning Word Processing/Typing Word for Windows	3.0
ENGL 104	Critical Thinking and Composition	3.0
OR		
PHIL 109	Introduction to Logic	3.0
SPCH 109	Public Speaking	3.0

Associate Degree
At this time, Victor Valley College does not offer an associate degree with a major in Paralegal Studies.

Transfer
To pursue a bachelor's degree, complete the following requirements prior to transfer if possible:

California State University, San Bernardino
Criminal Justice major with a concentration in Paralegal Studies:
AJ 101,103, POLS 130, BADM 101 or 102
One course from the following: MATH 105, H105,132
CSU General Education-Breadth Requirements

PARAMEDIC

The paramedic is able to diagnose and treat medical emergencies and accident victims in the prehospital setting.

Paramedic preparation involves a one year program which runs from June to May. Special application must be made to the Paramedic program (call the Program Director for details). Classes in this area meet California State EMS authority and ICEMA regulations. For course descriptions, see Section IX of this catalog.

Career Opportunities
Paramedic

Faculty
Full Time
Diego Garcia
Brian hendricksen
Scott Jones

Degrees and Certificates Awarded
Associate in Science, Paramedic
Paramedic Certificate

Certificate Programs

PARAMEDIC CERTIFICATE

This certificate prepares students to take the state examination to practice as a paramedic.

Requirements
35.5 units minimum
All of the following must be completed

		Units
ALDH 50	Paramedic Anatomy and Physiology	4.0
ALDH 51	Paramedic Introduction to EMS	1.0
ALDH 52	Paramedic Cardiology	4.0
ALDH 53	Paramedic Pharmacology	3.5
ALDH 54	Paramedic ACLS	1.0
ALDH 55	Paramedic EMS Theory	10.0
ALDH 56	Paramedic Clinical	3.0
ALDH 57	Paramedic Field Internship	11.0

Associate Degree
To earn an Associate in Science degree with a major in Paramedic, complete the above Paramedic Certificate requirements and meet all Victor Valley College graduation requirements.

Transfer
Not a transfer major. Some students pursue bachelor's degrees in related fields such as Emergency Medical Care at Loma Linda

PHILOSOPHY

The study of philosophy provides an opportunity to explore the most fundamental concerns of human life. Students examine and assess the concepts of the world's major thinkers and most influential texts regarding such themes as human value, religious experience, political order, truth, and ultimate reality. Philosophical study helps to develop such valuable and transferable skills as analytical reading and writing, creative

and critical thinking, and independent judgment. For course descriptions, see Section IX of this catalog.

Career Opportunities

(Most careers require a bachelor's or advanced degree.)
Corporate Manager
Ethics Consultant
Lawyer
Management Trainer
Public Administrator
Religious Leader
Social Worker
Teacher
Writer

Faculty

Full Time
Marc Skuster
Emeritus
Milton Danielson

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program

No certificates awarded.

Associate Degree

No associate degree offered with a major in Philosophy. Philosophy courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Philosophy major
One course from the following, if not already used to satisfy GE requirements: PHIL 101, 207, 108, 109, RLST 110
CSU General Education-Breadth Requirements

University of California, Riverside
Philosophy major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
Completion of IGETC recommended.

PHOTOGRAPHY

The study of photography offers a multitude of career possibilities. From fine art to commercial applications, photography is an exciting field that involves an education founded in conceptual as well as technical aspects. The development of the visual mind and a technical foundation in both traditional and digital imaging are the goals of the study of photography here at Victor Valley College. For course descriptions see Section IX of this catalog.

Career Opportunities

Aerial Surveying
Advertising
Architectural Design
Art
Digital Imaging
Fashion
Film Maker
Forensic and Criminal Applications
Marine Biology
Photo Finishing
Portrait Photography
Product Photography
Photographer's Assistant
Sports
Teaching

Faculty

Full Time
Frank Foster
Brent Wood

Degrees and Certificates Awarded

Associate in Arts, Fine Arts
Associate in Arts, Liberal Arts
Digital Photography Certificate

Certificate Program

DIGITAL PHOTOGRAPHY CERTIFICATE

Prepares the student for a variety of employment opportunities within the photographic field. This certificate also provides an opportunity for the student to continue on toward a more advanced certificate program. The student will be exposed to portrait, industrial, commercial, and architectural photography. An emphasis will be placed on learning Adobe Photoshop, digital cameras and digital output devices. The proper use of light will also be extensively covered. All camera formats will be covered.

Requirements
17.0 units minimum
All of the following must be completed:

		Units
PHOT 100	Beginnng Photography	3.0
PHOT 101	Intermediate Photography	3.0
PHOT 105	Portraiture	3.0
PHOT 52	Introduction to Photoshop	3.0
PHOT 53	Basic Photographic Lighting Techniques	3.0
PHOT 54	Portfolio Design	2.0

Associate Degree

No associate degree offered with a major in Photography. Photography courses may be used to fulfill requirements for an Associate in Arts degree with a major in Fine Arts. See Fine Arts for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. PHOT 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer

Photography is usually a concentration or option within an Art or Applied Art major at colleges within the University of California and California State University systems. Various private or independent colleges which focus specifically on the arts offer bachelor's degrees with a major in Photography or as a concentration or option within an Art or Applied Art major.

Because the major and the general education requirements vary in this major from university to university, students interested in photography should study the catalog of the specific university to which they plan to transfer.

The following is a sampling of colleges which offer Photography majors or Photography concentrations within Art or Applied Art majors:

Art Center College of Design, Pasadena
California College of Arts and Crafts, Oakland
California Institute of the Arts, Valencia
California State University
- Fullerton
- Hayward
- Long Beach
- San Jose
- San Luis Obispo

Chapman University
University of California, Santa Cruz

PHYSICAL EDUCATION

Physical Education as an academic science emphasizes knowledge of the body through the study of kinesiology and exercise physiology. Physical Education also contributes to the intellectual, social, emotional, spiritual and physical growth and development of each student. Other areas of study in Physical education include: nutrition, healthy lifestyles, stress management as well as psychological aspects of physical activity and injury care and prevention. Additional specialties within the discipline of Physical Education which are more fully addressed in the curriculum at Victor Valley College are Dance and Adapted Physical Education. A variety of activities are offered, encouraging students to develop lifelong fitness activities and patterns for recreation.

Any of the physical education activity courses may be repeated up to three times, but not more than four units of physical education activity classes will be counted toward the Associate in Arts or Science Degrees.

With the exception of the Adapted courses, all physical education activity classes are intended for normal, healthy, individuals. It is highly recommended that anyone 35 years or older have a physical checkup before enrolling. A physical education course is required for the Associate degree. For course descriptions, see Section IX of this catalog.

UC maximum credit allowed for PE and athletic courses combined: 4 units.

Career Opportunities

Adapted Physical Education Instructor
Certified Athletic Trainer
Certified Personal Trainer
Community Health Practitioner
Dance Choreographer
Dance Instructor
Dietician/Nutritionist
Exercise Physiologist
Exercise Scientist
Health Instructor
Leisure Services Specialist
Physical Education Instructor
Physical Therapist
Professional Dancer
Recreation Director
Sports Manager
Sports Psychologist

Faculty

Full Time
Debra Blanchard
Lynn Guardado
David Hoover
John Paine
David Rodriguez
Bruce Victor
Christa White

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts
Dance Certificate

Certificate Program

DANCE CERTIFICATE

Requirements
13.0 units minimum
Group I - All of the following must be completed:

		Units
PE 103	History and Appreciation of Dance	3.0

Group II - 10 units of the following must be completed:

APE 164	Adapted Modern Dance	1.0
PEDA 160	Beginning Tap	1.0
OR TA 160		

PEDA 161	Intermediate Tap	1.0
OR TA 161		
PEDA 169	Alignment and Correctives I	1.0
PEDA 162	Ballroom Dance I	1.0
PEDA 163	Ballroom Dance II	1.0
PEDA 151	World Dance	2.0
OR ANTH 151		
PEDA 164	Creative Movement I	1.0
PEDA 165	Creative Movement II	1.0
PEDA 152	Dance Choreography I	2.0
PEDA 153	Dance Choreography II	2.0
PEDA 101	Dance Rhythmic Analysis	3.0
PEDA 166	Ballet I	1.0
OR TA 166		
PEDA 167	Ballet II	1.0
OR TA 167		
PEDA 266	Ballet III	1.0
OR TA 266		
PEDA 267	Ballet IV	1.0
OR TA 267		
PEDA 170	Jazz Dance I	1.0
OR TA 170		
PEDA 171	Jazz Dance II	1.0
OR TA 171		
PEDA 270	Jazz Dance III	1.0
OR TA 270		
PEDA 271	Jazz Dance IV	1.0
OR TA 271		
PEDA 174	Modern Dance I	1.0
OR TA 174		
PEDA 175	Modern Dance II	1.0
OR TA 175		
PEDA 274	Modern Dance III	1.0
OR TA 274		
PEDA 275	Modern Dance IV	1.0
OR TA 275		

Associate Degree

No associate degree offered with a major in Physical Education. Physical Education courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Kinesiology major
BIOL 211 or 212 + BIOL 231 or 232, PE 101
CSU General Education-Breadth Requirements

Different concentrations within the Kinesiology major include Exercise Science, Pedagogy, and pre-physical therapy. For information about these options, see CSUSB's catalog (available in the Transfer Center), visit the website at www.csusb.edu, or visit www.assist.org.

Specialties in Exercise Physiology, Exercise Science, Fitness Training, and Sports Medicine are usually under the departments of Physical Education or Kinesiology at the four-year colleges. A major in Kinesiology may also lead to graduate programs in Physical Therapy at other institutions. See Sports Medicine under Medical and Health Professions for further information in these specific fields.

PHYSICAL SCIENCES

General Physical Sciences includes a number of scientific courses which often encompass a number of related disciplines. They are intended to serve as introductory level general education courses while also providing a basis for future, more advanced study in each of their respective fields.

Career Opportunities

(May require advanced degree)
Astronomer
Geologist
Meteorologist
Oceanographer

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts
Associate in Science, Math/Science

Certificate Program

No certificates awarded.

Associate Degree

No associate degree offered with a major in Physical Sciences. Physical Science courses may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science. See Math/Science for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. PSCI 138 (Cooperative Education) may be used for Elective credit, but may not be used to fulfill major requirements.

Transfer

University of California, Riverside
Physical Sciences major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required.

PHYSICS

The study of physics involves trying to understand, at the most fundamental level, our observations of natural phenomena. Inquiries extend from the most minute of subatomic particles, to nuclei, atoms, molecules, solids, liquids, gases and plasmas, stars and galaxies. Physics seeks to explain how, under the influence

of some fundamental forces, nature behaves as it does. In a larger sense it tries to address questions about our universe, such as: Where did we come from? What will be our ultimate fate?

The sequence of physics classes fills the lower division requirements for students who plan to major in fields such as physics, engineering or medicine. The classes will also fill general education requirements. For course descriptions, see Section IX of this catalog.

Career Opportunities

(May require advanced degree)
Engineer
Physicist
Teaching at many levels

Faculty

Full Time
Bob Kirkham

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts
Associate in Science, Math/Science

Certificate Program

No certificates awarded.

Associate Degree

No associate degree offered with a major in Physics. Physics courses may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science. See Math/Science for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. PHYS 138 (Cooperative Education) may be used as Elective credits, but may not be used to fulfill major requirements.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Physics major
CHEM 201, 202, MATH 226 + 227, 228, 231, 270
PHYS 201 + 202 + 203 + H204
BS: Optional: Add CIS 201
CSU General Education-Breadth Requirements

University of California, Riverside
Physics major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required.

POLITICAL SCIENCE

Political science is the study of political philosophies, processes, principles, and the structures of government and other political institutions. This academic discipline leads toward an understanding of the institutions of political ideologies, institutions of government, the roles of citizens and political leaders, interest groups and political parties, the electoral process, and contemporary issues that surround our public life. This field also includes an analysis of governments around the world and of international relations. For course descriptions, see Section IX of this catalog.

Career Opportunities

Attorney
Budget Analyst
Campaign Consultant/Staff Member
Educator
Foreign Diplomat/International Organization Worker
Government Official/Elected Official
Intelligence Officers & Analysts
Law Enforcement Officer
Legislative/Executive Staff Assistant
Lobbyist
National/International Business Position
Nonprofit Organization Staff Member
Print/Broadcast Journalist
Political PartyWorker
Urban Planner/City Manager

Faculty

Full Time
David Dupree

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program

No certificate program is awarded in Political Science. However, the Political Science Department offers a certificate in Paralegal Studies. See Paralegal Studies for further information about this program of study.

Associate Degree

No associate degree offered with a major in Political Science. Some Political Science courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. POLS 130, 131, 132, 133, 134, 135 (Paralegal courses) may be used as Electives and may not be used to fulfill major requirements for any degree at this time. See Liberal Arts for degree requirements for Liberal Arts major.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Political Science major
POLS 101, 102, 110
CSU General Education-Breadth Requirements
Note: CSU, San Bernardino also offers German.
CSU General Education-Breadth Requirements

University of California, Riverside
Political Science major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for more information at (909) 787-4531.
Completion of IGETC recommended.

PSYCHOLOGY

Psychology is a behavioral science which has as its goals to describe, understand, explain, predict and influence behavior and mental processes. Graduates in psychology—bachelor's degree and post-graduate study required—are employed in a number of areas, including teaching, research, and practice. Some of the major sub-fields in psychology are clinical, counseling, developmental, educational, environmental, health, industrial/organizational, neuroscience, physiological, quantitative (math, psychometrics, statistics), school, and social psychology. For course descriptions, see Section IX of this catalog.

Career Opportunities

Advertising Executive
Industrial/Organizational Psychologist
Marriage, Family and Child Counselor
Mental Health Officer
Personnel Analyst
Probation Officer
Psychologist
Psychometrist
Rehabilitation Counselor
School Counselor
School Psychologist

Faculty

Full Time
Bill Bachofner
Patricia Jennings
Jim Previte
Milt Danielson, Emeritus
Jennie Lackey, Emeritus

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program

No certificates awarded°. See Alcohol and Drug Studies for certificates offered at surrounding community colleges.

Associate Degree

No associate degree offered with a major in Psychology. Psychology courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. PSYC 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Psychology major
PSYC 101, ENGL 101
MATH 120, PSYC 110
One course from the following: MATH 105, H105, 116, 226, 132
CSU General Education-Breadth Requirements

University of California, Riverside
Psychology major and Psychobiology major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
Completion of IGETC recommended.

Chapman University, Victorville
Psychology major
(See **Table C** in Section VII of this catalog.)

RELIGIOUS STUDIES

The academic study of religion is an objective, factual study of the texts, symbols, myths, rituals, ideas, and values of the world's many religious traditions. Students are encouraged to view religion multiculturally as a means of understanding more deeply the spiritual dimensions of human nature, history, and society. Study in this field prepares students for life in a multicultural society and provides practice in such valuable skills as empathetic reading and listening, critical reflection, and descriptive and analytical writing. For course descriptions, see Section IX of this catalog.

Career Opportunities

(Most careers require a bachelor's or advanced degree.)
Chaplain
Counselor
Government Service
NonProfit Management
Professional Religious Leader
Religious Broadcaster
Religious Business Manager
Religious Educator
Religious Journalist
Religion Publisher
Social Worker
Teacher

Faculty
Full Time
Marc Skuster
Milt Danielson, Emeritus

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Certificate Program
No certificates awarded.

Associate Degree
No associate degree offered with a major in Religious Studies. Religious Studies courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major.

Transfer
To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

University of California, Riverside
Religious Studies major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
Completion of IGETC recommended.

RESPIRATORY THERAPY

Respiratory therapy is an allied health profession specializing in the diagnosis, treatment, and care of patients suffering from cardiopulmonary disease.

The program provides didactic instruction and supervised clinical practice in Inland Empire hospitals. Graduates of the VVC Respiratory Therapy Program, as a result of the education and training they receive, pass the state licensing and national registry exams at a rate much greater than the national average. The Respiratory Therapy Program is fully accredited by the Committee on Accreditation for Respiratory Care. For course descriptions, see Section IX of this catalog.

Separate application must be made to the Respiratory Therapy Program. Seating is limited to a maximum of twenty-five students per class.

Applications are available from the Program Director, Allied Health, and the Counseling Department.

Career Opportunities
Respiratory Care Practitioner
Critical Care Specialist
Diagnostic Testing Specialist
Education
Home Care
Neonatal/Pediatric Specialist
Pulmonary Rehabilitation
Research

Faculty
Full Time
Larry Boutcher
Traci Marin

Degrees and Certificates Awarded
Associate in Science, Respiratory Therapy
Respiratory Therapy Certificate

Certificate Program

RESPIRATORY THERAPY (A.S. AND CERTIFICATE)

This certificate prepares the student to take the State examination to practice as an entry level practitioner and the National Examination for Advanced level practitioner.

Requirements
78.0 units minimum
Group A: All of the following must be completed:

		Units
RSPT 230	Introduction to Respiratory Therapy	3.0
RSPT 231	Orientation to and Basic Fundamentals of Respiratory Therapy	10.0
RSPT 232	Patient Assessment and Clinical Application of Respiratory Care	10.0
RSPT 233	Intensive Respiratory Care and Advanced Pulmonary Physiology	13.0
RSPT 234	Neonatal and Pediatric Respiratory Care and Pathophysiology and Pulmonary Rehabilitation	13.0
RSPT 239	Introduction to Continuous Mechanical Ventilatory Support	2.0
BIOL 211	Human Anatomy	5.0
OR		
BIOL 212	Human Anatomy	4.0
BIOL 221	General Microbiology	5.0
BIOL 231	Human Physiology	4.0
OR		
BIOL 232	Human Physiology	5.0
ENGL 101	English Composition and Reading	3.0
PSYC 101	General Psychology	3.0

Group B: One of the following must be completed:

SPCH 106	Human Communication	3.0
SPCH 107	Family Communication	3.0
SPCH 108	Group Discussion	3.0
SPCH 109	Public Speaking	3.0

Group C: One of the following must be completed:
One course which meets the VVC Logic/Mathematical general education requirements for Category V (See page 48)

Group D: One of the following must be completed:
One course which meets the VVC Humanities general education requirements for Category III (See page 48)

Group E: One of the following must be completed:
One Physical Education Course

Any course which meets the general education transfer requirements to the CSU or UC system may be used as a general education requirement for the associate degree in Groups III and IV.

The Respiratory Therapy Faculty accepts and operates within the framework of the philosophy and objectives of Victor Valley College.

The Associate Degree in Respiratory Therapy provides a foundation for continuing personal, professional and educational development, and includes the study of the arts, sciences and humanities. The program is designed to produce a competent, self-directed respiratory therapist who, in a variety of settings, can assume leadership in planning, providing, and evaluating respiratory care of individuals and groups; who participates in the determination of the goals of the profession; and who actively searches for knowledge in respiratory therapy and related fields essential to the development and application of scientific respiratory care.

The respiratory therapy graduate receives the Associate of Science Degree and is eligible to take the National Registry Exam for Respiratory Therapists and the entry level exam for licensure in the State of California.

In order to be admitted to the Respiratory Therapy Program, separate application must be made in addition to application to the college. The annual deadline date for submitting applications to be considered for respiratory therapy is April 15. Applications can be obtained through the Allied Health Office or the Counseling Department. Prerequisites: CHEM 100, BIOL 100 or 107, and MATH 50 must be completed with a grade of "C" or higher before entry into the program.

Associate Degree

To earn an Associate in Science degree with a major in Respiratory Therapy, complete all requirements for the Respiratory Therapy Certificate. The Respiratory Therapy Certificate above includes all requirements for both a certificate and an Associate in Science degree in Respiratory Therapy.

Transfer

Most Respiratory Therapy courses do not transfer. Two universities offer a bachelor's degree in Respiratory Therapy:

California College for Health Sciences, National City
Loma Linda University

Students in this field may choose to pursue a bachelor's degree in Health Care Services, Respiratory Therapy, or related majors from Loma Linda University or other universities. An articulation agreement is in existence. Selected courses can be transferred to California State University, San Bernardino.

A handout with all transfer requirements for a B.S. degree in Health Care Services, Respiratory Therapy, and other related medical degrees from Loma Linda University is available in the Counseling Department.

RESTAURANT MANAGEMENT

The Restaurant Management program prepares students for careers in the food service industry. Due to an increasing demand, the opportunities in this field are vast and varied. Restaurants, hotels, clubs, colleges, retirement homes, hospitals, and industrial food service are but a few of the areas of employment available. Basic food preparation and techniques, nutrition, sanitation and safety are taught as the fundamentals for an educational foundation of more specialized and advanced skills. Creativity, innovation, and team concepts are encouraged. Skills are learned by emphasizing hands-on, practical experience coupled with strong managerial and accounting subjects, making graduates well qualified for employment. For course descriptions, see Section IX of this catalog.

Career Opportunities

Assistant Manager
Banquet Manager
Catering Manager
Chef
Dietary Assistant
Dining Room Manager
Food and Beverage Director
Foodservice/Restaurant Manager
Kitchen Manager
Purchasing Agent

Faculty

Full Time
Duane Buckles

Degrees and Certificates Awarded

Associate in Science, Restaurant Management
Restaurant Management Certificate

Certificate Program

RESTAURANT MANAGEMENT CERTIFICATE

The Restaurant Management certificate program gives the student the basic skills and education to become an entry-level manager in the food service industry.

Requirements
48.0 units minimum
All of the following must be completed:

First Semester:		**Units**
RMGT 81	Prep/Line Cook	3.0
RMGT 82	Waiter/Waitress	3.0
RMGT 86	Sanitation	3.0
RMGT 87	Professional Cooking	3.0
Second Semester:		
RMGT 83	Kitchen/Dining Room Training	6.0

**Plus two academics offered on a rotating basis, see list below

Third Semester:

RMGT 84	Kitchen/Dining Room Management	6.0

**Plus two academics offered on a rotating basis, see list below

Fourth Semester:

RMGT 85	Advanced Restaurant Management	6.0

**Plus two academics offered on a rotating basis, see list below

Rotating Academic List

RMGT 88	Management by Menu	3.0
RMGT 89	Purchasing	3.0
RMGT 90	Marketing	3.0
RMGT 91	Controlling Costs	3.0
RMGT 92	Legal Aspects in Food Service	3.0
RMGT 93	Supervision	3.0

Associate Degree

To earn an Associate of Science degree with a major in Restaurant Management, complete the above Restaurant Management Certificate requirements and meet all Victor Valley College graduation requirements.

Transfer

Victor Valley College Restaurant Management courses do not usually transfer toward a bachelor's degree program. Students who earn a certificate or degree in Restaurant Management may choose to pursue a bachelor's degree in Hospitality Management or Hotel and Restaurant Management. The following universities offer degrees in these areas:

Campuses that offer Restaurant Management or Hospitality Management majors or concentrations include: CSU-Long Beach, Pomona, San Francisco and San Jose.

Refer to ASSIST, at www.assist.org for major preparation requirements.

Students interested in pursuing a bachelor's degree in one of these majors will be required to complete lower division major requirements and general education requirements before transferring. See counselor for transfer requirements for major at specific universities.

Some students who earn a certificate or degree in Restaurant Management from Victor Valley College may choose to pursue a further degree from California Culinary Academy in San Francisco or The Culinary Institute of America in New York which also has a Napa Valley campus in St. Helena, California. These colleges specialize in preparing a student to become a chef.

SOCIAL SCIENCES

Transfer

To pursue a bachelor's degree that leads to a social science teaching credential at the secondary level, students must contact the specific university campus for detailed major preparation requirements, or go to www.assist.org.

California State University, San Bernardino
Refer to the Social Science teaching credential option listed in CSY-SB's Catalog, or visit www.assist.org.

University of California, Riverside
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
Completion of IGETC recommended.

Chapman University, Victorville
Social Science major
(See **Table C** in Section VII of this catalog.)

SOCIOLOGY

Sociology offers much to the student who desires to understand the web and rhythm of human behavior. From intimate, personal, and family relationships to international corporation activities; from marginality, deviance and crime to recreation, religion and medicine, few disciplines have such broad scope and relevance. For course descriptions, see Section IX of this catalog.

Career Opportunities

(Bachelor's or advanced degree usually necessary.)
Claims Examiner
Criminologist
Educator
Employment/Personnel Specialist
Interviewer/Researcher
Law Enforcement/Probation or Corrections Officer
Public Relations Consultant
Social Worker/Counselor
Statistician/Population Analyst
Urban Planning Consultant
Youth Counselor/Recreation Specialist

Faculty

Full Time
Gene Tashima

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program

No certificates awarded.

Associate Degree

No associate degree offered with a major in Sociology. Sociology courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. SOC 138 (Cooperative Education) may be used for Elective credit, but may not be used to fulfill major requirements.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Sociology major
SOC 101
CSU General Education-Breadth Requirements

California State University, San Bernardino
Human Services major
PSYC 101, 110, SOC 101
CSU General Education-Breadth Requirements

University of California, Riverside
Sociology major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
Completion of IGETC recommended.

Chapman University, Victorville
Sociology major
(See **Table C** in Section VII of this catalog.)

SPANISH

The study of Spanish has as its goals to explain, evaluate and communicate ideas and concepts by means of reading, writing and verbal processes through creative use of words (literature) and culture (civilization). This study affords insight into foreign attitudes and methods and encourages free communication, written and oral, among people.

Career Opportunities
Advertising
Business
Education
Government
Health Service
Journalism
Law Enforcement
Publishing
Social Work
Translating

Faculty
Full Time
Cuauhtemoc Franco
Dolores Hinson
Martha Vila

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Certificate Program
No certificates awarded.

Associate Degree
No associate degree offered with a major in Spanish. Spanish courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major.

Transfer
To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Spanish major
SPAN 103, 104
Business Track: Add BADM 101 or 103, CIS 101
CSU General Education-Breadth Requirements

University of California, Riverside
Spanish major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
Completion of IGETC recommended.

SPEECH COMMUNICATION

Speech Communication is an expansive field which aims to: (1) analyze, understand, and facilitate effective expression of organized thought, and (2) facilitate successful interaction with self, others, society and the world. Skills developed within this field are readily applicable in daily life. A bachelor's degree in Speech Communication offers pathways to careers in law, education, government, public relations and advertising, arts and entertainment, social and human services, international relations and negotiations. For course descriptions, see Section IX of this catalog.

Career Opportunities
Administrator
Advertising
Counselor
Lobbyist
Marketing Specialist
Ministry
News Anchor
Public Information Officer
Publicity Manager
Speech Writer
Teacher

Faculty
Full Time
Jacqueline Augustine-Carreira
Ed Heaberlin
Steven McDevitt
John Rude
Theresa Mirci-Smith
Polly Fitch, Emeritus

Certificate Program
No certificates awarded.

Associate Degree
No associate degree offered with a major in Speech Commu-

nication. Speech courses may be used to fulfill Electives and general education requirements.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Communication major
Optional: JOUR 108
Human Communication Concentration
Once course from the following: SPCH 106, 108
CSU General Education-Breadth Requirements

TEACHING

See "Education."

TECHNICAL EDUCATION

Certificate Program

COLLISION REPAIR TECHNICIAN CERTIFICATE

Requirements
14.0 units minimum
All of the following must be completed with a grade of "C" or better:

		Units
AUTO 91A	Auto Body Repair I	4.0
AUTO 91B	Auto Body Repair II	5.0
AUTO 92	Auto body Damage Estimating I	1.0
AUTO 91L	Automotive Auto Body Laboratory	1.0
AUTO 91L	Automotive Auto Body Laboratory	1.0
WELD 58A	Gas Metal Arc Welding	2.0

*Note: AUTO 91L must be completed two times.

RECREATIONAL VEHICLE SERVICE AND REPAIR TECHNICIAN CERTIFICATE

Requirements
17.0 units minimum
All of the following must be completed with a grade of "C" or better:

		Units
AUTO 91A	Auto Body Repair I	4.0
AUTO 85B	Automotive Electrical/Electronic Systems	1.0
CTMF 126A	Woodworking	3.0
CT 122A	Heating and Air Conditioning	4.0
CTMT 122	Electrical Repair	3.0
WELD 50	Introduction to Welding	2.0

THEATRE ARTS

Theatre Arts is the essence of the humanities in that it is the only art form that incorporates all the other fine arts into its final product. Our primary goal is to educate the whole person, to emphasize comprehensive education. Everyone should experience the dynamics of theatre, and our ensemble technique teaches cooperation, teamwork, and communication. The skills learned in producing theatre are necessary in every occupational arena. For course descriptions, see Section IX of this catalog.

Career Opportunities

Actor/Actress
Choreographer
Costumer
Makeup Artist
Publicist
Scene Designer
Screenwriter
Sound Technician
Stage Director
Teacher

Faculty

Full Time
Ed Heaberlin
Steve McDevitt
John Rude
Theresa Mirci-Smith
Polly Fitch, Emeritus

Degrees and Certificates Awarded

Associate in Arts, Fine Arts
Associate in Arts, Liberal Arts

Certificate Program

No certificates awarded.

Associate Degree

No associate degree offered with a major in Theatre Arts. Theatre Arts courses may be used to fulfill requirements for an Associate in Arts degree with a major in Fine Arts. See Fine Arts for degree requirement°s for this major. Courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. TA 138 (Cooperative Education) may be used as Elective credits, but may not be used to fulfill major requirements.

Transfer

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Theatre Arts major
TA 106, 107, 110
Three courses from the following: 113, 115, 117, 120
CSU General Education-Breadth Requirements

There are several different concentrations to choose from in this major. Please refer to CSUSB's catalog, visit them online at www.csusb.edu, and check at www.assist.org.

University of California, Riverside
Theatre Arts major
Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
Completion of IGETC recommended.

VISUAL COMMUNICATION

See **Computer Integrated Design and Graphics.**

WELDING

This program prepares students to enter welding-related occupations, offers retraining for those seeking a new career, and provides an opportunity for those employed in welding occupations to learn new skills and upgrade themselves in their positions.

The department is a member of the American Welding Society's Educational Institution Program for entry level welders and is entitled to all the privileges. This entry level welder program is part of the National Skills Standards Program, which is being enacted across a wide range of industries in the United States. Completers of the entry level welder program will receive a portfolio of their competencies to share with employers and be prepared to take the entry-level welder qualification test. Upon passing the entry level qualification test, the welder will receive a certification that will serve as a record of successful completion of the entry level welder program and be registered in the national registry of entry level welders.

The program prepares students to pass the written test and welding performance test necessary to acquire a welding license from the Los Angeles Department of Building and Safety. The program offers a certificate of achievement in welding, and an associate degree may be obtained upon completion of 18 units of welding course work in addition to general education. For course descriptions, see Section IX of this catalog.

Educational Institution Member

Career Opportunities
Boilermakers
Iron Workers
Maintenance Worker
Millwrights
Sheet Metal Workers
Welder
Welder-Fitter
Welding Estimator
Welding Inspector
Welding Instructor
Welding Operator
Welding Sales Representative
Welding Service Representative
Welding Supervisor
Welding Technician

Faculty
Full Time
Gary Menser

Degrees and Certificates Awarded
Associate in Science, Welding
Welding Certificate

Certificate Program

WELDING CERTIFICATE

The Welding Technology courses included in the certificate program will give the students the skills necessary to become an entry-level combination welder.

Requirements
19.0 units minimum
All of the following must be completed:

		Units
WELD 51	Oxyacetylene Welding, Cutting, and Brazing	3.0
WELD 52	Shielded Metal Arc Welding-Basic	3.0
WELD 53	Shielded Metal Arc Welding-Advanced	4.0
WELD 57A	Gas Tungsten Arc Welding-Basic	2.0
WELD 57B	Gas Tungsten Arc Welding-Advanced	2.0
WELD 58A	Gas Metal Arc Welding-Basic	2.0
WELD 58B	Gas Metal Arc Welding-Advanced	2.0
WELD 59	Welding Symbols and Blueprint Reading	1.0

Associate Degree
To earn an Associate in Science degree with a major in Welding, complete 18 units from Welding courses and meet all Victor Valley College graduation requirements. WELD 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer
Not a transfer major.

IX.
COURSE DESCRIPTIONS

"The very spring and root of honesty and virtue lie in good education."

-Plutarch
46-120 A.D.

COURSE NUMBERING SYSTEM

1-49	**Non-degree applicable** and **non-transfer**.
50-99	**Degree-applicable** but **non-transferable**.
100-199	**No prerequisites** (except Math and English, in which case the courses would be available via appropriate assessment test placement) but which are **degree- applicable** and **transferable**.
200-299	Higher level courses, mostly **with prerequisites** that are degree **applicable and transferable**.

AJ 103	AJ 8.0	PC 832.3 Campus Law Enforcement
AJ 106	AJ 25	Public Safety Dispatcher
AJ 110	AJ 30	PC 832 Firearms
AJ 111	AJ 31	Fingerprint Recog & Classification
AJ 52	AJ 52	Forensic Entomology
AJ 53	AJ 53	Forensic Anthropology
AJ 54	AJ 54	Forensic Pathology
AJ 58	AJ 58	PC 832 Laws of Arrest
AJ 64	AJ 64	Basic Corrections Officer Acad
AJ 67	AJ 67	Field Evidence Technician
AJ 73	AJ 73	Legal Aspects of Corrections
AJ 74	AJ 74	Multicultural Issues in Pub Safety
AJ 75	AJ 75	Juvenile Counselor Course
AJ 63	AJ 80	Level III Modulated Basic Course
AJ 68	AJ 81	Lev II Law Enforcement ModBscAcad
AJ 90	AJ 90	Security Officers' Training Acad
NEW	AJ 91	Correction's Supervision & Control
AJ 11	AJ 101	Intro to Admin Justice
AJ 12	AJ 102	Criminal Procedures
AJ 13	AJ 103	Criminal Law
AJ 14	AJ 104	Lgl Aspct of Evidence
AJ 23	AJ 123	Police Supervision & Leadership
AJ 26	AJ 126	Traffic Control
AJ 27	AJ 127	Crime and Delinquency
AJ 30	AJ 130	Death Investigation
AJ 32	AJ 132	Intro to Corrections
AJ 33	AJ 133	Writing for Criminal Justice
AJ 35	AJ 135	Juvenile Law & Procedures
AJ 38	AJ 138	Cooperative Education
AJ 40	AJ 140	Comm Skls Interview/Interrogation
AJ 48	AJ 148	Special Topics
AJ 49	AJ 149	Independent Study
NEW	AGNR 50	Equine Health
NEW	AGNR 50A	Introduction to Equine Health
NEW	AGNR 50B	Equine Diseases, Toxicology, Parasites
NEW	AGNR 50C	Colic and Proper Feeding Practices
NEW	AGNR 50D	Equine Lameness
NEW	AGNR 50E	Equine Reproductive Health
NEW	AGNR 50F	Equine Foaling and Neonatal Care
AG 80L	AGNR 60	Environmental Horticulture Lab
AG 65L	AGNR 72	Geospatial Technology I
AG 95	AGNR 73	Water Science
NEW	AGNR 74	Environmental Field Studies
NEW	AGNR 75	Conservation Research Laboratory
NEW	AGNR 80	Master Gardener
AG 31	AGNR 100	General Animal Science
AG 90	AGNR 101	Animal Nutrition
AG 55	AGNR 102	Equine Science

OH 19	AGNR 120	Pest Management in Environ Hort
OH 31	AGNR 121	Fundamentals of Environ Hort
OH 32	AGNR 122	Plant Propagation
NEW	AGNR 123	Introduction to Plant Science
AG 54	AGNR 129	Water Efficient Landscaping
AG 70	AGNR 131	Soil Science
OH 38	AGNR 138	Cooperative Education
OH 40	AGNR 140	Plant Materials & Usage I
AG 75	AGNR 141	Plant Materials & Usage II
OH 48	AGNR 148	Special Topics
OH 49	AGNR 149	Independent Study
OH 39	AGNR 150	Landscape Design
OH 17	AGNR 151	Landscape Construction
OH 35	AGNR 152	Landscape Irrigation
OH 36	AGNR 153	Landscape Maintenance
OH 43	AGNR 154	Landscape and Nursery Mgmt
OH 34	AGNR 160	Beginning Floral Design
OH 37	AGNR 161	Floral Design II
AG 60	AGNR 170	Environmental Science
AG 65	AGNR 171	Geograhic Info Sys in Nat Sci
AH 50	ALDH 50	Paramedic Anat & Physio/Med Trm
AH 51	ALDH 51	Paramedic Intro to EMS
AH 52	ALDH 52	Paramedic Cardiology
AH 53	ALDH 53	Paramedic Pharmacology
AH 54	ALDH 54	Paramedic Adv Cardiac Life Support
AH 55	ALDH 55	Paramedic Emerg Med Svc Theory
AH 56	ALDH 56	Paramedic Clinical
AH 57	ALDH 57	Paramedic Field Internship
AH 70	ALDH 60	Nursing Assistant
AH 78	ALDH 61	Home Health Aide
AH 79	ALDH 62	Acute Care C N A
AH 71	ALDH 71	Emerg Med Technician I
AH 81	ALDH 72	Emerg Med Technician-Refresher
AH 76	ALDH 76	Athletic Training III
AH 77	ALDH 77	Athletic Training IV
AH 80	ALDH 80	Pharmacology
AH 85	ALDH 81	Medical Insurance
AH 86	ALDH 82	Medical Office Procedures
AH 86C	ALDH 82C	Medical Office Procedures-Clinical
AH 83	ALDH 83	Basic Arrhythmia
AH 84	ALDH 84	Intravenous Therapy
NEW	ALDH 90A	Cert Phlebotomy Tech 1A
NEW	ALDH 90B	Cert Phlebotomy Tech 1B
NEW	ALDH 90C	Cert Phlebotomy Tech 1C
AH 95	ALDH 91	Basic CPR
AH 97	ALDH 92	Basic CPR Instructors Course
AH 12	ALDH 102	Contemp Prob in Prsnl/Comm Hlth
AH 25	ALDH 125	Med Aspects of Drugs & Alcohol

AH 38	ALDH 138	Cooperative Education
AH 39	ALDH 139	Medical Terminology
AH 20	ALDH 141	Athletic Training I
AH 21	ALDH 142	Athletic Training II
AH 48	ALDH 148	Special Topics
AH 49	ALDH 149	Independent Study
NEW	ANTH 6	Intro to GIS for Social Sciences
NEW	ANTH 7	Intermed GIS for Social Sciences
NEW	ANTH 8	Adv GIS for Social Sciences
NEW	ANTH 9	Field Apps in GIS for Social Sciences
ANTHRO 52	ANTH 53	Forensic Anthropology
ANTHRO54L	ANTH 54L	Archaeology Lab
ANTHRO 1	ANTH 101	Intro to Physical Anthropology
ANTHRO 1L	ANTH 101L	Physical Anthropology Lab
ANTHRO 2	ANTH 102	Intro to Cultural Anthropology
ANTHRO 3	ANTH 103	Intro to Archaeology
ANTHRO 4	ANTH 104	Anthropology field class
ANTHRO 5	ANTH 105	Indians of North America
ANTHRO 28	ANTH 128	Special Topics
ANTHRO 29	ANTH 129	Independent Study
ANTHRO 24	ANTH 151	World Dance
NEW	ART 51	Macromedia Flash App Design
ART 1A	ART 101	Survey of Art Hist
ART 1B	ART 102	Survey of Art Hist
ART 4	ART 104	Film as an Art Form
ART 5	ART 105	Intro to Art
ART 6	ART 106	Art Concepts
ART 7	ART 107	The Art and Life of Greece
ART 8	ART 108	The Art and Life of Italy
ART 2	ART 109	Survey of African American Art
ART 12A	ART 112	Design I
ART 12B	ART 113	Design II
ART 12C	ART 114	Color, Structure, & Design
ART 15	ART 115	Water-Based Media
ART 17A	ART 120	Acrylic Painting
ART 17B	ART 121	Intermed Acrylic Painting
ART 18A	ART 122	Intro to Life Drawing
ART 18B	ART 123	Intermed Life Drawing
ART 18C	ART 124	Anatomy for Life Drawing
ART 25A	ART 125	Drawing & Composition
ART 25B	ART 126	Drawing & Comp
ART 28	ART 128	Special Topics
ART 29	ART 129	Independent Study
ART 30	ART 130	Caricature Illustration
ART 31	ART 131	35 mm Color Slide Photography
ART 32	ART 132	Advertising Art
ART 33A	ART 133	Computer Graphics
ART 38	ART 138	Cooperative Education
ART 41	ART 141	Sculpture I
ART 42	ART 142	Sculpture II
ART 19A	ART 150	Intro to Oil Painting
ART 19B	ART 151	Intermed Oil Painting
ASTRO 50	ASTR 50	Working as Astronomers
ASTRO 1	ASTR 101	Descriptive Astronomy

ATHLTCS 20	ATHL 120	Varsity Baseball
ATHLTCS20P	ATHL 120P	Prep for Men's Baseball
ATHLTCS 21	ATHL 121	Varsity Basketball (Men)
ATHLTCS 44	ATHL 121P	Prep for Men's Basketball
ATHLTCS 22	ATHL 122	Varsity Basketball (Women)
ATHLTCS 41	ATHL 122P	Prep for Women's BasketballA
THLTCS 23	ATHL 123	Cross Country (Women)
ATHLTCS23P	ATHL 123P	Prep for Women's Cross Country
ATHLTCS 24	ATHL 124	Varsity Football
ATHLTCS24P	ATHL 124P	Prep for Football
ATHLTCS 25	ATHL 125	Varsity Golf
ATHLTCS25P	ATHL 125P	Prep for Golf
ATHLTCS 26	ATHL 126	Varsity Soccer (Women)
ATHLTCS 45	ATHL 126P	Prep for Women's Soccer
ATHLTCS 27	ATHL 127	Varsity Softball
ATHLTCS 43	ATHL 127P	Prep for Women's Softball
ATHLTCS 28	ATHL 128	Varsity Tennis (Women)
ATHLTCS28P	ATHL 128P	Prep for Women's Tennis
ATHLTCS 29	ATHL 129	Varsity Tennis (Men)
ATHLTCS29P	ATHL 129P	Prep for Men's Tennis
ATHLTCS 30	ATHL 130	Varsity Volleyball
ATHLTCS 30P	ATHL 130P	Prep for Volleyball
ATHLTCS 31	ATHL 131	Varsity Golf (Women)
ATHLTCS 32	ATHL 132	Varsity Wrestling (Men)
ATHLTCS 32P	ATHL 132P	Prep for Wrestling
ATHLTCS 33	ATHL 133	Cross Country (Men)
ATHLTCS 33P	ATHL 133P	Prep for Cross Country (Men)
ATHLTCS 34	ATHL 134	Track and Field (Women)
ATHLTCS 34P	ATHL 134P	Prep for Women's Track and Field
ATHLTCS 35	ATHL 135	Track and Field (Men)
ATHLTCS 35	ATHL 135P	Prep for Men's Track and Field
ATHLTCS 40	ATHL 140	Varsity Soccer (Men)
ATHLTCS 42	ATHL 140P	Prep for Men's Soccer
AUTO 50	AUTO 50	Intro to Automotive Technology
AUTO 51	AUTO 51	Auto Engines & Drive Trains
NEW	AUTO 51A	Engine Repair
AUTO 83	AUTO 52.0	Auto Cylinder Head Machinist
AUTO 75	AUTO 53.0	Auto Machinist/Cylinder Blk Spec
AUTO 132	AUTO 54.0	Auto Machinist/Engine Assmbly Spec
AUTO 56	AUTO 55.0	Std Trans & Differential Overhaul
AUTO 125	AUTO 56.0	Auto Transmission Overhaul
AUTO 58	AUTO 56A	Transmission Computer Systems
AUTO 52	AUTO 57.0	Auto Brakes,Suspnsn & Whl Align
AUTO 65	AUTO 57A	Auto Align & Brake Maintenance
AUTO 81	AUTO 58	Auto Lubrication Tech
AUTO 82	AUTO 59.0	Auto Tire Tech
AUTO 69	AUTO 60	Auto Suspension & Alignment
AUTO 68	AUTO 61.0	Automotive Brakes
AUTO 55	AUTO 63.0	Intro to Diesel Engine Repair
AUTO 74	AUTO 63A	Adv Diesel Engine Repair
AUTO 79	AUTO 64.0	Med/Hvy Duty Trk Suspnsn & Str
AUTO 73	AUTO 65.0	Hvy Dty Diesel Trk Lub & Inspct Tech
AUTO 88	AUTO 67.0	Heavy Duty Truck Air Brakes
AUTO 89	AUTO 68.0	Heavy Duty Truck Hydraulic Brakes
AUTO 87	AUTO 70.0	Small Engine Repair
AUTO 96	AUTO 71.0	Motorcycle Engine Repair
AUTO 78	AUTO 73.0	Motorcycle Svc Tune-up & Main
NEW	AUTO 74.0	Motorcycle Fuel & Emsn Sys Repair

NEW	AUTO 75.0	Motorcycle & Ignition Sys Repair
AUTO 62	AUTO 77.0	Auto Svc Writing & Shop Mgr
AUTO 62L	AUTO 77L	Auto Svc Writing & Shop Mgr Lab
AUTO 63	AUTO 78.0	Auto Parts Specialist
AUTO 63L	AUTO 78L	Auto Parts Cntr Person Lab
AUTO 53	AUTO 79.0	Auto Tune-up,Emsn Ctrl, Fuel Sys
AUTO 80	AUTO 79A	Basic Tune-Up
AUTO 115	AUTO 79B	Trble Shoot & Rpr Ignitn & Fuel Sys
AUTO 54	AUTO 80.0	Auto Cmptrs,Electronics/Elec Sys
AUTO 119	AUTO 80A	Auto Cmptr, Electronics & Elec Sys
AUTO 67	AUTO 81.0	Automotive Computer Systems
AUTO 93B	AUTO 82.0	Auto Electrical Repair
AUTO 59	AUTO 83.0	Intro to Smog Check Ref Tech
AUTO60A	AUTO 83A	Fund Cln Air Emsns Bsc Area
AUTO 60B	AUTO 83B	Cal Cln Air Emsns Bsc Area Course
NEW	AUTO 83C	Smog Check Program Update 2003
AUTO60D	AUTO 83D	Basic Area Clean Air Car Course
AUTO 61	AUTO 84.0	Enhance Area Cal Clean Air Course
AUTO 91	AUTO 85.0	Engine Performance
AUTO 92	AUTO 85A	Adv Engine Performance
AUTO 93	AUTO 85B	Auto Electrical & Electronic Sys
AUTO54A	AUTO 85C	Auto Elec/Electronic Sys Repair
AUTO 94	AUTO 85D	Intro to Cmptr On-Board Diag II Sys
AUTO 57	AUTO 88.0	Compressed Nat Gas Sys
AUTO 90	AUTO 89.0	Elec Vehicle Design & Production
AUTO 76	AUTO 89A	Elec Vehicle Design & Main
AUTO 77	AUTO 89B	Elec Vehicle Design & Construction
AUTO 64	AUTO 91A	Auto Body Repair I
AUTO 85	AUTO 91B	Auto Body Repair II
AUTO 64L	AUTO 91L	Auto Body Lab
AUTO 86	AUTO 92.0	Auto Body Dmge Estimating I
AUTO 84	AUTO 93.0	Auto Glass Installation I
AUTO 71	AUTO 94A	Auto Window Tinting I
AUTO 72	AUTO 94B	Auto Window Tinting II
AUTO 95A	AUTO 95A	Auto Lab A
AUTO 95B	AUTO 95B	Auto Lab B
AUTO 70	AUTO 96.0	Leadership & Public Event Planning
AUTO 117	AUTO 97.0	Auto Air Cond/Heat System
AUTO 98	AUTO 98	Special Topics
AUTO 66	AUTO 99	Car Care Clinic
AUTO 38	AUTO 138	Cooperative Education
BSKL 110A	BSKL 10A	Beg Word Know & Read Skills
BSKL 110B	BSKL 10B	Int Word Know & Read Skills
BSKL 110C	BSKL 10C	Adv Word Know & Read Skills
BSKL 111A	BSKL 11A	Sentence Writ & Grammar Skills
BSKL 111B	BSKL 11B	Paragraph Writ & Grammar Skills
BSKL 111C	BSKL 11C	Short Comp Writ & Gram Skills
BSKL 112A	BSKL 12A	MATH: Ops with Whole Numbers
BSKL 112B	BSKL 12B	MATH: Ops with Rational Numbers
BSKL 112C	BSKL 12C	MATH: Ops with Decimals
BSKL 112D	BSKL 12D	Ops with Frac, Decimals & Percents
BIOLOGY 51	BIOL 51	Marine Bio in Lab & Field
BIOLOGY 52	BIOL 52	Forensic Entomology
BIOLOGY 53	BIOL 54	Forensic Pathology
BIOLOGY 70	BIOL 70	Intro to Biotechnology
BIOLOGY 71	BIOL 71	Intro to Laboratory
BIOLOGY 72	BIOL 72	Biomolecular Science
BIOLOGY 65A	BIOL 98 A/B	International Nat History
BIOLOGY 10	BIOL 100	General Biology
BIOLOGY 4	BIOL 104	General Botany
BIOLOGY 11	BIOL 107	Intro to Human Bio
BIOLOGY 9	BIOL 109	Field Biology
BIOLOGY 13	BIOL 113	Bio of Sexually Transmitted Disease
BIOLOGY 14	BIOL 114	Intro to Ecology
BIOLOGY 8	BIOL 118	Principles of Heredity
BIOLOGY 20	BIOL 120	Ident & Stdy of Wildflowers
BIOLOGY 21	BIOL 121	Plants and Human Society
BIOLOGY 16	BIOL 126	Nat Hist of Mojave Desert
BIOLOGY 17	BIOL 127	Ident. & Stdy of Birds of Mojave Dsrt
BIOLOGY 18	BIOL 128	Ident & Stdy of Amphbns & Reptls
BIOLOGY 19	BIOL 129	Ident & Stdy of Mmls of Mjv Dsrt
BIOLOGY 38	BIOL 138	Cooperative Education
BIOLOGY 29	BIOL 149	Independent Study
BIOLOGY 1	BIOL 201	Bio of Cells
BIOLOGY 2	BIOL 202	Bio of Organisms
BIOLOGY 3	BIOL 203	Population & Environmental Bio
ANATOMY 1	BIOL 211	Human Anat
ANATOMY 2	BIOL 212	Human Anat
ANATOMY 5A	BIOL 215A	Human Gross Anat, Thrx & Abdmn
ANATOMY 5B	BIOL 215B	Human Gross Anat, Bck & Extrmts
ANATOMY 5C	BIOL 215C	Human Gross Anat, Head & Neck
MICRO 1	BIOL 221	General Microbio
PHYSIO 1	BIOL 231	Human Physio
PHYSIO 2	BIOL 232	Human Physio
NEW	BIOL 250A	Tropical Field Biol & Nat History
BAD 51A	BADM 50	Applied Accounting I
BAD 51B	BADM 51	Applied Accounting II
BAD 52	BADM 52	Elements of Supervision
BAD 53	BADM 53	Management for Supervisors
BAD 55	BADM 55	Microcomputerized Office Mgmt
BAD 60	BADM 60	Intro to International Bus
BAD 70	BADM 70	Individ Income & Payroll Taxes 1A
BAD 71	BADM 71	Individ Income & Payroll Taxes 1B
BAD 72	BADM 72	IRS Proc & Taxpayer Bill of Rights
BAD 20	BADM 100	Intro to Bus Organizations
BAD 1A	BADM 101	Elem Acctng
BAD 1B	BADM 102	Elem Acctng
BAD 2A	BADM 103	Financial Acctng
BAD 2B	BADM 104	Principles of Acctng
BAD 3	BADM 105	Managerial Accounting
BAD 4A	BADM 106	Acctng on Microcomputers
BAD 4B	BADM 107	Acctng on Microcomputers
BAD 5	BADM 108	Managerial Finance
BAD 6	BADM 109	Human Resource Mgmt
BAD 7	BADM 110	Principles of Mgmt
BAD 8	BADM 111	Intro to Public Admin
BAD 9	BADM 112	Intro to Marketing
BAD 11	BADM 113	Retailing
BAD 12	BADM 114	Sales
BAD 16	BADM 116	Human Relations in Business
BAD 17	BADM 117	Legal Environ in Business
BAD 18	BADM 118	Business Law

BAD 22	BADM 122	Small Business Management
BAD 38	BADM 138	Cooperative Education
BAD 42	BADM 142	Business Mathematics
BAD 44	BADM 144	Business Communications
BAD 48	BADM 148	Special Topics
BAD 49	BADM 149	Independent Study
BET 46	BET 56	Beginning DOS A/B/C
BET 46A	BET 56A	Beginning DOS A
BET 46B	BET 56B	Beginning DOS B
BET 46C	BET 56C	Beginning DOS C
BET 47	BET 57	Advanced DOS
BET 65	BET 65	Speedwriting
BET 66	BET 66	Speedwriting/Shorthand Dev & Rvw
BET 68	BET 68	Proofreading
BET 74	BET 74	Office Machine Calculations
BET 76	BET 76	Business Etiquette
BET 77	BET 77	Speed and Accuracy Development
BET 80	BET 80	Telework/Telecommute
BET 1	BET 101	Beg Keyboard/Type
BET 3	BET 103	Wordperfect for Windows ABC
BET 3A	BET 103A	Wordperfect for Windows A
BET 3B	BET 103B	Wordperfect for Windows B
BET 3C	BET 103C	Wordperfect for Windows C
BET 3D	BET 103D	Wordperfect for Windows D
BET 4	BET 104	Word for Windows ABC
BET 4A	BET 104A	Word for Windows A
BET 4B	BET 104B	Word for Windows B
BET 4C	BET 104C	Word for Windows C
BET 4D	BET 104D	Word for Windows D
NEW	BET 107	Internet Level I/II/III
BET 7	BET 107A	Internet Level I
BET 8	BET 107B	Internet Level II
BET 9	BET 107C	Internet Level III
BET 11A	BET 111A	Lotus 1-2-3 for Windows A
BET 11B	BET 111B	Lotus 1-2-3 for Windows B
BET 11C	BET 111C	Lotus 1-2-3 for Windows C
BET 12	BET 112	Excel for Windows ABC
BET 12A	BET 112A	Excel for Windows A
BET 12B	BET 112B	Excel for Windows B
BET 12C	BET 112C	Excel for Windows C
BET 14A	BET 114A	Spreadsheet: Quattro Pro A
BET 14B	BET 114B	Spreadsheet: Quattro Pro B
BET 14C	BET 114C	Spreadsheet: Quattro Pro C
BET 17A	BET 117A	Database: Paradox A
BET 17B	BET 117B	Database: Paradox B
BET 17C	BET 117C	Database: Paradox C
BET 18	BET 118	Database: Access ABC
BET 18A	BET 118A	Database: Access A
BET 18B	BET 118B	Database: Access B
BET 18C	BET 118C	Database: Access C
BET 22	BET 122	Intermed Keyboard/Type ABC
BET 22A	BET 122A	Intermed Keyboard/Type Apps A
BET 22B	BET 122B	Intermed Keyboard/Type Apps B
BET 22C	BET 122C	Intermed Keyboard/Type Apps C
BET 23L	BET 123L	Machine Transcription -Legal
BET 23M	BET 123M	Machine Transcription-Medical
BET 23T	BET 123T	Machine Transcription
BET 24	BET 124	Records Mgmt with Microcomputers
BET 25	BET 125	Secretarial Procedures
BET 27	BET 127	Expository Writing Microcomputer
BET 30	BET 130	Wordperfect Adv Features
BET 31A	BET 131A	PowerPoint I
BET 31B	BET 131B	Powerpoint II
BET 31C	BET 131C	PowerPoint III
BET 33	BET 131	PowerPoint I/II/III
BET 34	BET 134	Condensed Word Processing
BET 35	BET 135	Desktop Publishing: PageMaker
BET 36	BET 136	Career Apps for Word Processing
BET 38	BET 138	Cooperative Education
BET 39A	BET 139A	Adv Word Proc/Type Apps A
BET 39B	BET 139B	Adv Word Proc/Type Apps B
BET 39C	BET 139C	Adv Word Proc/Type Apps C
BET 41A	BET 141A	Windows A
BET 41B	BET 141B	Windows B
BET 41C	BET 141C	Windows C
BET 42	BET 142	Office Technology & Procedures
BET 43	BET 143	Business English
BET 45	BET 145	Communications for Business
BET 48	BET 148	Special Topics
BET 49	BET 149	Independent Study
BUS ESC 38	BESC 138	Cooperative Education
BUS ESC 41	BESC 141	Escrow I, Principles (Basic)
BUS ESC 42	BESC 142	Escrow II, Principles (Advanced)
BUS ESC 43	BESC 143	Escrow III, Case Problems
BUS ESC 48	BESC 148	Special Topics
BUS ESC 49	BESC 149	Independent Study
BUS RE 51	BRE 51	Fund of Mortgage Banking
BUS RE 52	BRE 52	Real Estate Mathematics
BUS RE 53	BRE 53	Real Estate Development
BUS RE 54	BRE 54	Principles of Mortgage Origination
BUS RE 55	BRE 55	Principles/Practices of Mortgage Proc
BUS RE 56	BRE 56	Intro to Financial Planning
NEW	BRE 60	Adv RE Appr: Comp/Review Proc
BUS RE 30	BRE 100	Real Estate Principles
BUS RE 31	BRE 101	Real Estate Practices
BUS RE 32	BRE 110	Legal Aspects of Real Estate I
BUS RE 33	BRE 111	Legal Aspects of Real Estate Apps
BUS RE 34A	BRE 120	Real Estate Appraisal
BUS RE 34B	BRE 121	Adv Real Estate Appraisal
BUS RE 35	BRE 125	Taxes & Real Estate Investment
BUS RE 36	BRE 126	Real Estate Finance
BUS RE 37	BRE 127	Real Estate Office Admin
BUS RE 38	BRE 138	Cooperative Education
BUS RE 39	BRE 139	Real Estate Economics
BUS RE 40	BRE 140	Real Property Mgmt
BUS RE 42	BRE 142	Real Estate Marketing
BUS RE 48	BRE 148	Special Topics
BUS RE 49	BRE 149	Independent Study
CAR DEV 52	CRDV 52	Car Dev: Growing on the Job
CAR DEV 53	CRDV 53	Car Dev: Integrating Work & Life
CAR DEV 54	CRDV 54	Car Dev: Dev Leadership Abilities
CAR DEV 55	CRDV 55	Car Dev: Successful Job Hunt
CAR DEV 56	CRDV 56	Car Dev: Resume Writing/Job App
CAR DEV 57	CRDV 57	Car Dev: Employment Interviews

CAR DEV 60	CRDV 60	Wrkfrce Preparedness/Dcsn-making
CAR DEV 61	CRDV 61	Wrkfrce Preparedness/Getting Job
CAR DEV 62	CRDV 62	Wrkfrce Preparedness/Prfrm on Job
CAR DEV 63	CRDV 63	Wrkfrce Preparedness/Keeping Job

CHEM 101	CHEM 1	Summer Youth Science Academy
CHEM 55	CHEM 55	Intro Comp Chem for Sciences
CHEM 72	CHEM 72	Biomolecular Science
CHEM 10	CHEM 100	Introductory Chem
CHEM H10	CHEM H100	Honors Intro Chem
CHEM 14	CHEM 114	Environmental Chemistry
CHEM 20	CHEM 120	Intro to Nutrition
CHEM 28	CHEM 128	Special Topics
CHEM 29	CHEM 129	Independent Study
CHEM 38	CHEM 138	Cooperative Education
CHEM 50	CHEM 150	Forensic Chemistry
CHEM 1A	CHEM 201	General Chemistry
CHEM 1B	CHEM 202	General Chemistry
CHEM 6	CHEM 206	Intro Chem II: Organic
CHEM H6	CHEM H206	Honors Intro Chem II: Org Chem
CHEM 7	CHEM 207	Intro Chem III: Biochem
NEW	CHEM H207	Honors Intro Chem III: Biochem
CHEM 5	CHEM 255	Quantitative Anlys
CHEM 8A	CHEM 281	Organic Chemistry
CHEM 8B	CHEM 282	Organic Chemistry

CLDDEV 101	CHDV 1	Mentor Seminar A
CLDDEV 102	CHDV 2	Mentor Seminar B
CLDDEV 103	CHDV 3	Adv Mentor Seminar A
CLDDEV 104	CHDV 4	Adv Mentor Seminar B
CLDDEV 105	CHDV 5	Director Seminar
CLDDEV 106A	CHDV 10	Curriculum-Circle Time Music
CLDDEV 106B	CHDV 11	Curriculum-Art Appreciation
CLDDEV 106C	CHDV 12	Curriculum-Storytelling w/Puppets
CLDDEV 106D	CHDV 13	Curriculum-Tech. in ECE Classroom
CLDDEV 106E	CHDV 14	Curriculum-Woodworking
CLDDEV 106F	CHDV 15	Curriculum-Music w/Autoharp
CLDDEV 106G	CHDV 16	Curriculum-Hands-on Learning
CLDDEV 106H	CHDV 17	Hands-On Exp Infnt/Tdlr Care
CLDDEV 106I	CHDV 18	Curriculum-Center Time Activities
CLDDEV 6	CHDV 106	Child, Family & Community
CLDDEV 10	CHDV 110	Intro to Early Childhood Education
CLDDEV 11	CHDV 111	Infant & Toddler Caregiving
CLDDEV 15	CHDV 115	Family Day Care Provider
CLDDEV 27A	CHDV 127A	Prog/Curr in Supervised Fld Exp I
CLDDEV 27B	CHDV 127B	Prog/Curr in Supervised Fld Exp II
CLDDEV 32	CHDV 132	Montessori Methods of Education
CLDDEV 33	CHDV 133	Art Exp for Young Children
CLDDEV 34	CHDV 134	Language & Early Literacy Dev
CLDDEV 37	CHDV 137	The Child with Special Needs
CLDDEV 38	CHDV 138	Cooperative Education
CLDDEV 41	CHDV 141	Bsics of School-Age Child Care
CLDDEV 42	CHDV 142	Child Health, Safety and Nutrition
CLDDEV 43	CHDV 143	Intro to the High/Scope Curriculum
CLDDEV 44	CHDV 144	Math & Science Exp for Yng Child
CLDDEV 45	CHDV 145	Music/Movement Exp for Yng Child
CLDDEV 46	CHDV 146	Child Growth and Development
CLDDEV 47	CHDV 147	Music: Circle-Time Activities
CLDDEV 48	CHDV 148	Special Topics
CLDDEV 49	CHDV 149	Independent Study
CLDDEV 20	CHDV 220	Mentor Teacher/Adult Supervision
CLDDEV 39A	CHDV 239	Admin of Children's Prog I
CLDDEV 39B	CHDV 240	Admin of Children's Prog II

CIS 50	CIS 50	Computer Ethics
CIS 56	CIS 56	Project Mgmt with MS Mgmt
CIS 64	CIS 64	Computer Mathematics
CIS 67	CIS 67	Fundamentals of Networking
CIS 71	CIS 71	Network Technologies
CIS 74	CIS 74	Novell Netware 6 Basic Admin
CIS 77	CIS 77	Netware Service & Support
CIS 81	CIS 78.0	GroupWise Aministration
CIS 82	CIS 79	Novell Drctry Svcs Design & Implnt
NEW	CIS 90	Intro to Unix Operating System
NEW	CIS 91A	MYSQL Admin A
NEW	CIS 91B	MYSQL Admin B
NEW	CIS 93	PERL
NEW	CIS 94	PHP (Hyperrtext Preprocessor) Prog
NEW	CIS 95	PHP + MYSQL Web App Dev
NEW	CIS 96A	Struct Query Lang A Using MYSQL
NEW	CIS 96B	Struct Query Lang B Using MYSQL
NEW	CIS 97	XML Programming
CIS 1	CIS 101	Computer Literacy
CIS 2	CIS 102	Intro to Operating Sys: DOS
CIS 3	CIS 103	Foundations of Computer Tech
CIS 4	CIS 104	Object-Oriented Software Design
CIS 5	CIS 105	Intro to Systems Analysis
CIS 6	CIS 106	Intro to Comp Tech for Educators
CIS 7	CIS 107	Intro to the Internet for Educators
CIS 8	CIS 108	Assembly Lang Programming
CIS 35	CIS 111	Multimedia Presentations
CIS 23	CIS 123	Intro to Operating Sys: UNIX
CIS 24	CIS 124	Fund of Data Comp
CIS 25	CIS 125	Netware TCP/IP Admin
CIS 27	CIS 127	Netware Install. and Config.
CIS 36	CIS 136	Intro to the Internet/WWW
CIS 37	CIS 137	Intro to HTML
CIS 38	CIS 138	Cooperative Education
CIS 39	CIS 139	Windows XP for Power Users
CIS 32A	CIS 201	C++ Module A: Intro to Prog
CIS 32B	CIS 202	C++ Module B: Understanding Lang
CIS 32C	CIS 203	C++ Module C
CIS 42	CIS 205	Client Side Scripting
CIS 44A	CIS 206A	Java Programming A
CIS 44B	CIS 206B	Java Programming B
CIS 33	CIS 210	Visual Basic Programming
CIS 13	CIS 211A	Adv VB Prog Mod A: Adv Topics
CIS 14	CIS 211B	Adv VB Prog Mod B: Database Prog
CIS 15	CIS 211C	Adv VB Prog Mod C: Web Prog
CIS 40	CIS 240A	Windows 2000 Professional
CIS 41	CIS 240B	Intro to Windows 2000 Svr Admin
CIS 26	CIS 252	Novell Netware 6 Adv Admin
CIS 34A	CIS 261	UNIX Sys Administration A
CIS 34B	CIS 262	UNIX Sys Administration B
CIS 22	CIS 280	Fund of Database Mgmt Sys
CIS 43	CIS 281	Database Management

CIS 45A	CIS 287A	Struct Query Language A
CIS 45B	CIS 287B	Struct Query Language B
CIS 47A	CIS 288A	Oracle A
CIS 47B	CIS 288B	Oracle B
CIS 46A	CIS 290A	MS SQL Server Admin A
CIS 46B	CIS 290B	MS SQL Server Admin B
CIDG 50	CIDG 50	Drafting Laboratory
CIDG 52	CIDG 64	3ds max Architectural Design
CIDG 70	CIDG 70	Design for Graphic Artists
CIDG 71	CIDG 71	Survey of Computer Graph Studio
CIDG 72	CIDG 72	Computer Illustration
CIDG 73	CIDG 73	Typography and Layout
CIDG 75	CIDG 75	Page Layout & Design
CIDG 77	CIDG 77	Print Production Processes
CIDG 79	CIDG 79	Multimedia & Web Design
CIDG 51	CIDG 80	Introduction to GIS
CIDG 11	CIDG 101	Intro to Drafting
CIDG 3	CIDG 103	Blueprint Reading for Construction
CIDG 4	CIDG 104	Blueprint Reading for Industry
CIDG 8	CIDG 108	Architectural Presentation
CIDG 6A	CIDG 110	Two Dimensional Autocad
CIDG 6C	CIDG 120	Solid Model & 3 Dimensional Cadd
CIDG 38	CIDG 138	Cooperative Education
CIDG 48	CIDG 148	Special Topics
CIDG 7	CIDG 153	Architectural Design
CIDG 26A	CIDG 160	3ds max Fundamentals
CIDG 6B	CIDG 210	Adv Two Dimensional Autocad
CIDG 25A	CIDG 230	Computer Aided Mapping I
CIDG 25B	CIDG 231	Computer Aided Mapping II
CIDG 53A	CIDG 250	Architectural Comp Aid Design I
CIDG 53B	CIDG 251	Architectural Comp Aid Design II
CIDG 26B	CIDG 260	3ds max Adv Modeling/Materials
CIDG 26C	CIDG 261	3ds max Adv Animation/Effects
CIDG 27A	CIDG 280	GIS I
CIDG 27B	CIDG 281	GIS II
CT 101	CT 2.0	Assistant Property Management
CT 60ABCD	CT 60ABCD	Construction Laboratory
CT 1	CT 101	Careers in Cnstct & Mnfctrng
CT 3	CT 103	Construction Management
CT 4	CT 104	Construction Law
CT 5	CT 105	Technical Sketching
CT 6	CT 106	Materials of Construction
CT 7	CT 107	Technical Mathematics
CT 8	CT 108	Adv Technical Math
CT 9	CT 109	Construction Financing
CT 10	CT 110	Building Codes and Zoning
CT 11A	CT 111A	Uniform Building Code I
CT 11B	CT 111B	Uniform Building Code II
CT 12	CT 112	Uniform Mechanical Code
CT 13	CT 113	Uniform Plumbing Code
CT 14	CT 114	National Electrical Code
CT 15	CT 115	Tech Ofc Procedure/Field Inspect
CT 16	CT 116	Construction Safety
NEW	CT 119	Load Calculations & Circuit Design
CT 20A	CT 120A	Electrical Wiring
CT 20B	CT 120.B	Commercial Wiring
CT 21	CT 121	Finish Carpentry
CT 22A	CT 122A	Heating and Air Conditioning
CT 22B	CT 122B	Commercial Refrigeration
NEW	CT 122C	Heat Pump Fund. Cntl.
CT 23	CT 123	Surveying
CT 24	CT 124	Plumbing
CT 25	CT 125	Concrete Masonry
CT 26	CT 126	Exploring Brick and Block
CT 27	CT 127	Framing
NEW	CT 129	Independent Study
CT 29	CT 130	Residential Remodeling
CT 30	CT 131	Microcomputers in Construction
CT 32	CT 132	Construction Estimation
CT 33	CT 133	Precision Estimation
NEW	CT 136	HVAC Circuits and Controls
NEW	CT 137	Sheet Metal Fabrication
CT 38	CT 138	Cooperative Education
CT 40	CT 140	Construction Internship
CT 41	CT 141	Construction Internship Lab
NEW	CT 142	Renewable Energy
NEW	CT 143	Renewable Engergy Laboratory
CT 48	CT 148	Special Topics
ETEC 21	ETEC 107	Intro to Internet for Educ
NEW	CTMF 120A	Woodworking Tools & Equipment
NEW	CTMF 120B	Adv Woodworling Tools & Equip.
CTMF 126A	CTMF 121A	Basic Woodworking
CTMF 126B	CTMF 121B	Advanced Woodworking
NEW	CTMF 122/A/B/C/D	Advanced Wood Topics
CT MANF 27	CTMF 127	Production Woodworking
NEW	CTMF 129A	Woodturning
NEW	CTMF 129B	Advanced Woodturning
CT MANF 30A	CTMF 130A	Mechanical Desktop
CT MANF 30B	CTMF 130B	Mechanical Desktop Advanced
CT MANF 31A	CTMF 131A	Mastercam
CT MANF 31B	CTMF 131B	Mastercam Advanced
CT MANF 40	CTMF 140	Manufacturing Internship
CT MANF 41	CTMF 141	Manufacturing Internship Lab
CT MANT 20	CTMT 120	Residential Maintenance & Repair
CT MANT 21	CTMT 121	Plumbing Repair
CT MANT 22	CTMT 122	Electrical Repair
CT MANT 23	CTMT 123	Custodial Maintenance
CT MANT 29	CTMT 129	Small Engines & Light Vehicles
CT PBWK 11	CTPW 111	Intro to Public Works
CT PBWK 12	CTPW 112	Plan Reading for Public Works
CT PBWK 13	CTPW 113	Public Works Inspection
CT PBWK 14	CTPW 114	Public Works Administration
CT PBWK 15	CTPW 115	Street & Highway Construction
CT PBWK16A	CTPW 116A	Water Distribution Systems I
CT PBWK 17	CTPW 117	Portland Cement Concrete
CT PBWK 18	CTPW 118	Solid Waste Management
CT PBWK 19	CTPW 119	Wastewater Management
DEV 60A	DVST 1	Language Analysis Development
DEV 60B	DVST 2	Language Analysis Development
DEV 60C	DVST 3	Language Analysis Development
DEV 60D	DVST 4	Mathematical Reasoning

ECON 1A	ECON 101	Prin of Econ:Macro
ECON 1B	ECON 102	Prin of Econ:Micro
ECON 18	ECON 118	Investments
ECON 28	ECON 128	Special Topics
ECON 29	ECON 129	Independent Study
EDUC 50	EDUC 50	Tutoring Principles & Practices
EDUC 2	EDUC 52	Educating Today's Learner
EDUC 1	EDUC 101	Intro to Teaching
EDUC 38	EDUC 138	Cooperative Education
ELCT 105	ELCT 5	CET Exam Preparation
ELCT 106	ELCT 6	FCC License Preparation
ELCT 107	ELCT 7	A+ Cert Exam Preparation
ELCT 50	ELCT 50	A+ Operating Systems Technologies
ELCT 51	ELCT 51	C++ Prog for Elect & Cmptr Tech
ELCT 53	ELCT 53	Electronic Comm Principles
ELCT 54	ELCT 54	Electronic Comm Systems
ELCT 57	ELCT 57	Technical Math for Elect I
ELCT 58	ELCT 58	Technical Math for Elect II
ELCT 59	ELCT 59	Technical Calculus for Elect I
ELCT 60	ELCT 60	Technical Calculus for Elect II
ELCT 76	ELCT 61	Bsc Maintenance of PC's
ELCT 95	ELCT 62	Personal Computer (PC): Servicing
ELCT 96	ELCT 63	PC: Troubleshooting
ELCT 65	ELCT 65	PC Monitors
ELCT 66	ELCT 66	Multmed Hrdwr Install/Servicing
ELCT 67	ELCT 67	PC Laser Printers
ELCT 68	ELCT 68	Macintosh Computer Fundamentals
ELCT 69	ELCT 69	Network Topologies/Cabling
ELCT 70	ELCT 70	PC Operating Systems
ELCT 71	ELCT 71	Princ of Digital Logic & Circuits
ELCT 73	ELCT 73	Microprocessor Principles
ELCT 74	ELCT 74	Scientific Calculator
ELCT 75	ELCT 75	Graphic Scientific Calculator
ELCT 77A	ELCT 77A	Network Tech & Practices I
ELCT 77B	ELCT 77B	Network Tech & Practices II
ELCT 78A	ELCT 78A	CISCO Network Academy I
ELCT 78B	ELCT 78B	CISCO Network Academy II
ELCT 78C	ELCT 78C	CISCO Network Academy III
ELCT 78D	ELCT 78D	CISCO Network Academy IV
ELCT 78E	ELCT 78E	CISCO Network Academy V
NEW	ELCT 78F	CISCO Network Academy VI
NEW	ELCT 78G	CISCO Network Academy VII
NEW	ELCT 78H	CISCO Network Academy VIII
NEW	ELCT 78I	Fund. Of Network Security
NEW	ELCT 78J	Fund. Of Wireless LANS
ELCT 79A	ELCT 79A	Microsoft Cert Sys Engineer
ELCT 79B	ELCT 79B	Microsoft Certified
ELCT 81	ELCT 81	Soldering Theory & Techniques
NEW	ELCT 83	SOHO Networking
ELCT 84	ELCT 84	Computer Networking
ELCT 85	ELCT 85	Optoelectronics: Fiber Optics
ELCT 86	ELCT 86	Optoelectronics: Lasers
ELCT 87	ELCT 87	Indust Elec: Cntrl Sys, Dvc & Circuits
ELCT 88	ELCT 88	Indust Elec: Process Cntrl Apps
ELCT 89	ELCT 89	Biomed Elect/Biomed Instrmntation
ELCT 90	ELCT 90	Biomed Elect/Adv Instrumentation
ELCT 91	ELCT 91	Microprocessor Interfacing
ELCT 92	ELCT 92	Microprocessor Applications
ELCT 93	ELCT 93	Consumer Electronics: TV Servicing
ELCT 94	ELCT 94	Consumer Elect:VCR/Camcord Svc
ELCT 97	ELCT 97	Telecommunications: Digital Comm
ELCT 99	ELCT 99	Telecommunications:Mcrowv Com
ELCT 10	ELCT 110	Survey of Computer Technology
ELCT 31	ELCT 131	D.C. Circuit Theory/Analysis
ELCT 32	ELCT 132	A.C. Circuit Theory & Analysis
ELCT 33	ELCT 133	Solid State Devices & Circuits
ELCT 34	ELCT 134	Solid State Circuit Analysis
ELCT 38	ELCT 138	Cooperative Education
ELCT 48	ELCT 148	Special Topics
ETEC 30	ETEC 51	Intro to Educ Technology
NEW	ETEC 60	Intro to Online Teaching/Learning
ETEC 40	ETEC 70	Leadership in Educational Tech
ETEC 50	ETEC 90	Educ Technology Internship
ETEC 20	ETEC 106	Intro to Computer Tech for Educ
ENGL 166	ENGL 6	Basic Writing & Reading
ENGL 58	ENGL 8	Reading Improvement I
NEW	ENGL 10.0	Laboratory in Writing
ENGL 50	ENGL 50	Writing Fundamentals
ENGL 50L	ENGL 50L	Lab-Enhanced Study for
ENGL 59	ENGL 59	Effective Reading & Study Skills
ENGL 61	ENGL 61	Theory & Prac of Tutoring Writing
ENGL 62	ENGL 62	Writing Tutor Workshop
ENGL 65	ENGL 65	College Grammar
ENGL 1A	ENGL 101.0	English Comp & Reading
ENGL H1A	ENGL H101	Honors Comp & Reading
ENGL 1B	ENGL 102.0	Comp & Literature
ENGL H1B	ENGL H102	Honors Comp & Literature
ENGL 2	ENGL 104	Critical Thinking & Comp
ENGL H2	ENGL H104	Honors Critical Thinking & Comp
ENGL 9	ENGL 109	Creative Writing
ENGL 12	ENGL 112	Technical Writing
ENGL 16	ENGL 116	Authors of the Theatre
ENGL 28	ENGL 128	Special Topics
ENGL 29	ENGL 129	Independent Study
ENGL 38	ENGL 138	Cooperative Education
ENGL 49	ENGL 149	Critical Reading/College Study Skills
ENGL 31	ENGL 162	Native Americal Literature
ENGL 10	ENGL 210	Fiction Writing
NEW	ENGL 211	Poetry Writing
ENGL 20	ENGL 220	Modern Fiction
ENGL 25	ENGL 225	Poetry
ENGL 30A	ENGL 230	Srvy of Amrcn Lit 1600-1865
ENGL 30B	ENGL 231	Srvy of Amrcn Lit 1865 to Present
ENGL 32	ENGL 232	Chicano/A & Latino/A Literature
ENGL 33	ENGL 233	African American Literature
ENGL 35	ENGL 235	Children's Literature
ENGL 40A-B	ENGL 240/241	World Literature
ENGL 46A	ENGL 245	Srvy of Engl Lit
ENGL 46B	ENGL 246	Srvy of Engl Lit
ENGL 47	ENGL 247	Shakespeare
NEW	ESL 3	Low Beg Reading & Writing
NEW	ESL 5	Beginning Listening & Speaking
NEW	ESL 12A	ESL Computer Lit for Beginners

NEW	ESL 12B	ESL Computer Lit for Beginners
NEW	ESL 13	High Beg Read and Vocabulary
ESL 116A	ESL 22	Speak/Listen Skills for Job Srch
ESL 154	ESL 23	PreIntermed Reading & Vocabulary
ESL 153	ESL 25	Preintermed Listening & Speaking
ESL 116D	ESL 27	Preintermed Writing & Grammar
NEW	ESL 30A	Intermed Pronunciation for ESL
NEW	ESL 30B	Intermediate Pronunciation
ESL 101	ESL 31	Intermed Writing I
ESL 102	ESL 32	Intermed Writing II
ESL 103	ESL 33	Reading and Vocabulary
ESL 104	ESL 34	High Intermed Reading & Vocab
ESL 35	ESL 35A	Low Intermed Listen & Speak
ESL 36	ESL 35B	High Intermed Listen & Speak
ESL 111	ESL 37	Intermed Grammar
NEW	ESL 37A	Low Intermed Writing & Grammar
NEW	ESL 37B	High Intermed Writing & Grammar
ESL 112	ESL 38	High Intermediate Grammar
NEW	ESL 43	Low Adv. Reading & Vocabulary
ESL 113	ESL 47	Adv Grammar
ESL 114	ESL 48	High Adv Grammar
NEW	FIRE 1	Fire Command 1C/I-Zone FF for CO
NEW	FIRE 3A	Certified Volunteer Fire Fighter
NEW	FIRE 3B	Certified Volunteer Fire Fighter
FIRE 97	FIRE 4A	Fire Fighter II Academy
FIRE 61L	FIRE 4B	Response to Terrorism
FIRE 99	FIRE 5	Chief Officer's Workshop
FIRE 98	FIRE 5A	Fire Comp Officer's Academy
FIRE 88	FIRE 5B	Fire Command 2B: Mgmt Hazmat
FIRE 89	FIRE 5C	Fire Command 2C-Highrise Tactics
FIRE 60D	FIRE 5D	Incident Command Sys:Scene Mgr
FIRE 60J	FIRE 5E	Strike Team Leader,Dozers (S-335)
FIRE 60K	FIRE 5F	Inmate Fire Crew Supervisor
FIRE 60L	FIRE 5G	Supply Unit Leader, S-356
FIRE 61J	FIRE 5H	Food Unit Leader
FIRE 61K	FIRE 5I	Ground Support Unit Leader
FT 104	FIRE 5J.1	Volunteer Fire Officer Academy
FIRE 63A	FIRE 6A	Bsc Fire Engine Operation Acad CDF
FIRE 73A	FIRE 6B	Fire Attack I: Set Stndrd Fire Grnd
FIRE 76A	FIRE 6C	Leadership Fundamentals
FT 116	FIRE 7	First Responder-Medical
FT 117	FIRE 7A	First Responder Medical, Refresher
FT 118	FIRE 8B	Emergency Medical Tech, Refresher
FIRE 81A	FIRE 8C	EMT-ID, Defibrillation
FT 114	FIRE 9	Fire Cont III, StructFireFightInstruct
FT 115	FIRE 9A	Fire Control IV: Oil/Gas FF Tech
FT 101	FIRE 10	Fire Fighter Skills Maintenance
FT 102	FIRE 10A	Skills Maintenance for PCFF
FIRE 59A	FIRE 10B	Wildland Fire Fighter's Skills Main
FIRE 98A	FIRE 10C	Company Offcr Skills Maintenance
FIRE 65H	FIRE 10D	Hand Crew Fire Fighter Skills Main
FT 110	FIRE 11	Low Angle Rescue
FT 106	FIRE 11A	Rescue Systems I
FT 108	FIRE 11B	Confined Space Awareness
FT 168.15	FIRE 15	S-244, Field Observer/Display Proc
FT 168.16	FIRE 16	Technical Specialist, Crew
FT 168.17	FIRE 17	Basic Fire Crew, Captain
FT 168.18	FIRE 18	Class A Foam Operations
FT 120	FIRE 20	I-333 Strike Team Leader,Crew
FT 121	FIRE 21	CDF Firing Officer S-234
FT 121.1	FIRE 21A	Firing Methods and Procedures
FT 168.26	FIRE 26	S-205, Interface Operations
FT 168.27	FIRE 27	S-403, Information Officer
FT 168.28	FIRE 28	I-342, Document Unit Leader
FT 168.29	FIRE 29	S-430, Operations Section Chief
FT 130	FIRE 30	Instruction Tech for Comp Officers
FT 131	FIRE 30A	National Fire Acad Public Fire Educ
FT 181	FIRE 33	Fire Line EMT Academy
FT 140	FIRE 40	Fire Fighter Entrance Exam Tech
FT 141	FIRE 40A	Fire Fighter Physical AgilityTech
FT 111	FIRE 40F	Bldg Construct for Fire Suppression
FT 50	FIRE 50	Fire Svc Super-Increase Pers Effect
FT 51	FIRE 51	Fire Svc Super-Increase Team Effct
FT 52	FIRE 52	Commanding the Initial Response
FT 53	FIRE 53	Hazmat First Respond-Op Decontam
FT 54	FIRE 54	Fire Command 2E
FT 55	FIRE 55	Fire Instructor 2A
FT 56	FIRE 56	Fire Instructor 2B
NEW	FIRE 58	Intro to Emergency Management
NEW	FIRE 58A	Community Disaster Planning
NEW	FIRE 58B	Emergency Management Response
NEW	FIRE 58C	Emergency Management Recovery
NEW	FIRE 58D	Intro to Mitigation for Disasters
FT 59	FIRE 59	Basic Wildland Fire Fighter Acad
FT 66.2	FIRE 60B	Adv Incident Command Sys, I-400
FT 68.8	FIRE 60C	Incident Safety Officer, S-401
FT 66.3	FIRE 60E	Division/Group Supervisor, S-339
FT 68	FIRE 60F	ICS-334 Strike Team Leader-Engine
FT 68.2	FIRE 60G	Incident Comm, Initial Attack, S-200
FT 68.3	FIRE 60H	Incident Comm, Ext Attack,S-300
FT 61	FIRE 61	Rescue Practices
FT 68.6	FIRE 61A	Medical Unit Leader, S-359
FT 68.7	FIRE 61B	Basic Air Operations,S-270
FT 68.9	FIRE 61C	Helispot Manager, S-272
FT 68.10	FIRE 61D	Resource Unit Leader
FT 68.11	FIRE 61G	Fire Line Emerg Med Tech (EMT)
FT 68.12	FIRE 61E	Check In/Status Recorder, S-248
FT 68.13	FIRE 61F	Staging Area Manager
FT 63	FIRE 63	Driver/Operator 1A
FT 64	FIRE 64	Driver/Operator 1B
FT 60	FIRE 65	Basic Wildland Fire Control
FT 68.14	FIRE 65O	Campbell Prediction System
FT 66	FIRE 66	Intro to Incident Command
FT 67	FIRE 67	Trench Rescue
FT 69	FIRE 69	Bldg Construction for Fire Protection
FT 70	FIRE 70	Instructor 1A-Instruct Tech Part I
FT 71	FIRE 71	Instructor 1B: Instructional Tech II
FT 72	FIRE 72	Fire Command 1A
FT 73	FIRE 73	Fire Command 1B
FT 74	FIRE 74	Fire Prevention 1A: Inspctn Prac
FT 75	FIRE 75	Fire Prevention 1B: Code Enfrcmnt
FT 76	FIRE 76	Management 1:Supervision for CO's
FT 77	FIRE 77	Investigation 1A:Fire Cause/Origin
FT 78	FIRE 78	Fire Prevention 1C: Liquids/Gases
FT 79	FIRE 79	Fire Investigation 1B
FT 68.1	FIRE 80	Intro to Wildland Fire Behav,S-190

FT 68.4	FIRE 80A	Intermed Wildland Fire Behav,S-290
FT 68.5	FIRE 80B	Wildland Fire Suppression Tct,S-336
FT 81	FIRE 81	Emergency Medical Technician I
FT 81.4	FIRE 81B	EMT I-Continuing Educ Recert
FT 82	FIRE 82	Hazmat First Responder Awareness
FT 80	FIRE 82A	Hazmat First Responder
FT 83	FIRE 83	Fire Mgmt 2C:Labor/Personnel Mgmt
FT 84	FIRE 84	Fire Comm 2A:Comm Tact/Fires
FT 85	FIRE 85	Fire Mgmt 2A:Org Dev & Hmn Rel
FT 86	FIRE 86	Intrmd Incident Command Sys(ICS)
FT 87	FIRE 87	Fire Management 2E
FT 90	FIRE 90	Paid Call Fire Fighter Acad
FT 91	FIRE 91	Fire Control 5
FT 93	FIRE 93	Fire Mgmt 2D: Master Planning
FT 94	FIRE 94	Fire Command 2D: Lg Disaster Plan
FT 95	FIRE 95	Basic Fire Academy
FT 30	FIRE 100	Intro Fire Technology
FT 31	FIRE 101	Fund of Fire Svc Operations
FT 32	FIRE 102	Fire Prevention Technology
FT 35	FIRE 103	Fire Protect Equip & Sys
FT 37	FIRE 104	Fire Behavior & Combustion
FT 39	FIRE 105	Fire Apparatus & Equipment
FT 40	FIRE 106	Fire Comp Organization/Mgmt
FT 41	FIRE 107	Fire Investigation
FT 43	FIRE 108	Fire Hydraulics
FT 45	FIRE 109	Wildland Fire Control
FT 21	FIRE 121	Fire Management 2B
FT 38	FIRE 138	Cooperative Education
FT 48	FIRE 148	Special Topics
FT 49	FIRE 149	Independent Study
FRENCH 1	FREN 101	Elementary French
FRENCH 2	FREN 102	Elementary French
FRENCH 3	FREN 103	Intermed French
FRENCH 4	FREN 104	Intermed French
FRENCH 25	FREN 125	Conversational French
FRENCH 28	FREN 128	Special Topics
FRENCH 29	FREN 129	Independent Study
GEOG 1	GEOG 101	Physical Geography
GEOG 1L	GEOG 101L	Geography Lab
GEOG 2	GEOG 102	Cultural Geography
GEOG 3	GEOG 103	Geography of California
GEOG 28	GEOG 128	Special Topics
GEOL 1	GEOL 101	Physical Geology
GEOL 2	GEOL 102	Historical Geology
GEOL 3	GEOL 103	Geology of California
GEOL 9	GEOL 109	Geology of West National Parks
GEOL 10	GEOL 110	Descriptive Mineralogy
GEOL 12	GEOL 112	Introduction to Mineralogy
GEOL 28	GEOL 128	Special Topics
GEOL 29	GEOL 129	Independent Study
GERMAN 1	GERM 101	Elementary German
GERMAN 2	GERM 102	Elementary German
GERMAN 3	GERM 103	Intermediate German
GERMAN 4	GERM 104	Intermediate German
GERMAN 25	GERM 125	Conversational German
NEW	GERM 128	Special Topics
NEW	GERM 129	Independent Study
GUID 101	GUID 10	Support Class for Learning Disabled
GUID 60	GUID 16	LD Prog Eligibiligy Assessment
GUID 4G	GUID 50	College Success
GUID 51	GUID 51	Orientation to College
GUID 4C	GUID 59	Special Issues in Pers Development
GUID 4I	GUID 64	Orientation (EOPS)
GUID 6	GUID 66	Peer Advising Techniques
GUID 70	GUID 70	Alternative Learning Strategies
GUID 80	GUID 75	Career Orientation for the Disabled
GUID 4E	GUID 100	Career & Life Planning
GUID 5	GUID 105	Personal and Career Success
GUID 7	GUID 107	Learning Strategies/Study Skills
NEW	HVAC/R 122A	Heating and Air Conditioning
NEW	HVAC/R 122B	Commercial Refrigeration
NEW	HVAC/R 122C	Heat Pump Fund. Cntl.
NEW	HVAC/R 136	HVAC Circuits and Controls
HIST 101	HIST 1	History (Field Trip) of Mojave Road
HIST 50	HIST 50	United States History
HIST 55	HIST 55	History of the Victor Valley
HIST 60	HIST 60	Mojave Desert History Workshop
HIST 3A	HIST 103	World History to 1500
HIST 3B	HIST 104	World History Since 1500
HIST 20	HIST 115	History of California
HIST 17A	HIST 117	History of the US to 1876
HIST H17A	HIST H117	Honors History of US to 1876
HIST 17B	HIST 118	History of the US from 1876
HIST H17B	HIST H118	Honors History of US from 1876
HIST 22	HIST 119	The Information Age
HIST 5A	HIST 120	British Hist/Institutions to 1713
HIST 5B	HIST 121	British Hist/Institutions since 1713
HIST 6A	HIST 124	History of the Far East
HIST 6B	HIST 125	History of the Far East
HIST 21	HIST 127	History of Russia
HIST 28	HIST 128	Special Topics
HIST 29	HIST 129	Independent Study
HIST 8A-B	HIST130/131	Latin American History
HIST 18	HIST 135	History of Mexico
HIST 45	HIST 145	PTK Study Topic Seminar
HIST 7	HIST 150	Hispanic American History
HIST 13	HIST 153	African American History
HIST 14	HIST 155	Women in US History
HIST 16	HIST 157	History of the Indians of US
IND STDY 99	IND STD 99	Independent Study
IND STDY 2	9IND STD 129	Independent Study
IND STDY 49	IND STD 149	Independent Study
JOURN 6	JOUR 106	Intro to Photojournalism
JOURN 8	JOUR 108	Fundamentals of Journalism
JOURN 8L	JOUR 108L	Journalism Lab
JOURN 28	JOUR 128	Special Topics

JOURN 29	JOUR 129	Independent Study
JOURN 38	JOUR 138	Cooperative Education
NEW	LATN 101	Elementary Latin
NEW	LATN 102	Elementary Latin
MATH 167	MATH 10	Basic Mathematics Skills
MATH 159	MATH 12	Pre-Algebra
MATH 50	MATH 50	Elementary Algebra
NEW	MATH 50A	Elementary Algebra I
NEW	MATH 50B	Elementary Algebra II
MATH 50L	MATH 50L	Lab-Enhanced Study for Math 50
MATH 60	MATH 60	Geometry
MATH 70	MATH 70	Bldg Math Exp for Child K-8
MATH 71	MATH 71	Guided Discoveries Practicum
MATH 3	MATH 90	Intermediate Algebra
MATH 4	MATH 104	Trigonometry
MATH 5	MATH 105	College Algebra
MATH H5	MATH H105	Honors College Algebra
NEW	MATH 119	Finite Mathematics
MATH 20	MATH 120	Intro to Statistics
NEW	MATH H120	Honors Introduction to Statistics
MATH 28	MATH 128	Special Topics
MATH 29	MATH 129	Independent Study
MATH 32	MATH 132	The Ideas of Math
MATH 38	MATH 138	Cooperative Education
NEW	MATH 216	Business Calculus
MATH 26A	MATH 226	Analytic Geometry and Calculus
MATH H26A	MATH H226	Honors Analytic Geometry/Calculus
MATH 26B	MATH 227	Analytic Geometry and Calculus
MATHH26B	MATH H227	Honors Analytic Geometry/Calculus
MATH 26C	MATH 228	Analytic Geometry and Calculus
MATHH26C	MATH H228	Honors Analytic Geometry/Calculus
MATH 31	MATH 231	Linear Algebra
MATH 27	MATH 270	Differential Equations
MEART 40	MERT 50	Principles of Animation
MEART 41	MERT 51	Int. Model/Anim w/Softimage XSI
MEART 42	MERT 52	Digital Character Animation
MEART 43	MERT 53	Adv Animation w/Softimage XSI
MEART 44	MERT 54	Adv Tec Proj Mgt -Softimage XSI
MEART 45	MERT 55	PostProd Tec Vis Eff SoftimageXSI
NEW	MERT 56	Photoshop for Animators
MEART 30	MERT 60	Fundamentals of Game Design
MEART 31	MERT 61	Game Design Interface Design
MEART 32	MERT 62	Game Engine Programming
MEART 33	MERT 63	Multi-User Game Design
MEART 34	MERT 64	Artificial Intelligence
MEART 35	MERT 65	Game Production/Workflow
MEART 20	MERT 70	Writing for Media Arts
MEART 22	MERT 72	Portfolio Development
MEART 24	MERT 74	Digital Video Production
MEART 26	MERT 76	Digital Cinematography
MUSC 46A	MUSC 56	Summer Choir
MUSIC 66	MUSC 66	Victor Valley College Pep Band
MUSIC 10	MUSC 100	Introduction to Music

MUSIC 1	MUSC 101	Fundamentals of Music
MUSIC 2A	MUSC 102	Music Theory-Diatonic Prac Prt I
MUSIC 2B	MUSC 103	Music Theory-Diatonic Prac Prt II
MUSIC 4A	MUSC 104	Sight Sing/Ear Train Lab, Lev I
MUSIC 4B	MUSC 105	Sight Sing/Ear Train Lab, Lev II
MUSIC 65	MUSC 108	Jazz Improvisition
MUSIC 15A	MUSC 110	Elementary Piano
MUSIC 15B	MUSC 111	Elementary Piano
MUSIC 5	MUSC 112	Intro to Music Technology
MUSIC 6	MUSC 113	Beg Midi Workstation
MUSIC 11	MUSC 115	Hist of Music in Western Culture
MUSIC 12	MUSC 116	Music in America
MUSIC 13	MUSC 117	History of Jazz
MUSIC 14	MUSC 118	Survey of Rock & Roll
MUSIC 18A	MUSC 120A	Applied Music-Voice
MUSIC 18B	MUSC 120B	Applied Music-Piano
MUSIC 18C	MUSC 120C	Applied Music-Guitar
MUSIC 18D	MUSC 120D	Applied Musci-Upper Strings
MUSIC 18E	MUSC 120E	Applied Music-Low Strings
MUSIC 18F	MUSC 120F	Applied Music-High Brass
MUSIC 18G	MUSC 120G	Applied Music-Low Brass
MUSIC 18H	MUSC 120H	Applied Music-Reeds
MUSIC 18I	MUSC 120I	Applied Music-Woodwinds
MUSIC 18J	MUSC 120J	Applied Music-Percussion
MUSIC 41	MUSC 122	Beg Voice Production
MUSIC 42	MUSC 123	Intermed Voice Class
MUSIC 60A	MUSC 124	Beginning Guitar
MUSIC 60B	MUSC 125	Beginning Guitar
MUSIC 63	MUSC 126	Guitar Ensemble
MUSIC 28	MUSC 128	Special Topics
MUSIC 29	MUSC 129	Independent Study
MUSIC 20	MUSC 130	Women's Choir
MUSIC 21	MUSC 131	The College Singers
MUSIC 55	MUSC 132	Master Arts Chorale
MUSIC 22ABCD	MUSC 134	Musical Theatre Lab
MUSIC 25	MUSC 135	Beginning Band
MUSIC 34	MUSC 136	College Symphonic Band
MUSIC 30	MUSC 137	Instrumental Ensemble
MUSIC 38	MUSC 138	Cooperative Education
MUSIC 31	MUSC 139	Studio Band
MUSIC 33	MUSC 140	Studio Singers
MUSIC 32	MUSC 141	Jazz-Rock Combo
MUSIC 61	MUSC 143	Beg String Ensemble
MUSIC 62	MUSC 144	Preludium String Ensemble
MUSIC 35	MUSC 145	College Symphony Orchestra
MUSIC 36	MUSC 146	Symphony Orchestra
MUSIC 37	MUSC 147	Brass Choir
MUSIC 3A	MUSC 202	Adv Theory-Chromatic Prac Prt I
MUSIC 3B	MUSC 203	Adv Theory-Chromatic Prac Prt II
MUSIC 4C	MUSC 204	Sight Sing/Ear Train Lab, Lev III
MUSIC 4D	MUSC 205	Sight Sing/Ear Train Lab, Lev IV
MUSIC 16A	MUSC 210	Intermediate Piano
MUSIC 16B	MUSC 211	Intermediate Piano
NURS 38	NURS 138	Cooperative Education
NURS 48	NURS 148	Special Topics
NURS 49	NURS 149	Independent Study
NURS 20	NURS 220	Pharm & Nurs Management

NURS 21	NURS 221	Nursing Process 1
NURS 22	NURS 222	Nursing Process 2
NURS 23	NURS 223	Nursing Process 3
NURS 24	NURS 224	Nursing Process 4
NURS 25	NURS 225	LVN to RN Transition Course
NURS 26	NURS 226	Critical Cardio Respiratory Nursing
NURS 45	NURS 245	Nursing Leadership/Management
NURS 46	NURS 246	Patient Assessment
OCEAN 10	OCEA 101	Oceanography
PHILOS 6	PHIL 101	Intro to Philosophy
PHILOS 8	PHIL 108	Contemp Moral Issues
PHILOS 9	PHIL 109	Intro to Logic
PHILOS 20A	PHIL 120	Intro to Ancient/Medieval Philos
PHILOS 20B	PHIL 121	Hist of Modern/Contemp Philos
PHILOS 28	PHIL 128	Special Topics
PHILOS 29	PHIL 129	Independent Study
PHILOS 7	PHIL 207	Intro to Critical Thinking
PHOTO 50	PHOT 50	Commercial Photo Applications
PHOTO 51	PHOT 51	Environmental Photography
PHOTO 52	PHOT 52	Intro to Photoshop
PHOTO 53	PHOT 53	Basic Photo Lighting Techniques
PHOTO 54	PHOT 54	Portfolio Design
PHOTO 1A	PHOT 100	Beginning Photo
PHOTO 1B	PHOT 101	Intermediate Photography
PHOTO 2	PHOT 102	Advanced Photography
PHOTO 3	PHOT 103	Alternative Imaging Process
PHOTO 4	PHOT 104	Basic Color Photography
PHOTO 5	PHOT 105	Portraiture
PHOTO 6	PHOT 106	Intro to Photojournalism
PHOTO 28	PHOT 128	Special Topics
PHOTO 29	PHOT 129	Independent Study
PHOTO 38	PHOT 138	Cooperative Education
PE 76	PE 76	Athletic Training III
PE 77	PE 77	Athletic Training IV
PE 45	PE 101	Intro to Exrcs Scnc & Kinesiology
PE 12	PE 102	Contemp Prob in Pers/Comm Hlth
PE 20	PE 103	History & Appreciation of Dance
PE 42	PE 104	Psychology of Phys Performance
PE 37D	PEDA 271	Jazz Dance IV
PE 39C	PEDA 274	Modern Dance III
PE 39D	PEDA 275	Modern Dance IV
PE 41C	PEDA 276	Dance Rehearsal/Performance III
PE 41D	PEDA 277	Dance Rehearsal/Performance IV
PE 47	PE 105	Dev Movement for Child 0-11
PE 48	PE 120	Theory of Baseball
PE 50	PE 121	Theory of Basketball
PE 49	PE 122	Theory of Football
PE 55	PE 123	Theory of Soccer
PE 56	PE 124	Theory of Softball
PE 51	PE 125	Tennis Theory
PE 60	PE 126	Theory of Volleyball
PE 28	PE 128	Special Topics
PE 53	PE 140	Care & Prev of Injuries/Phys Actvy
PE 30	PE 141	Athletic Training I
PE 31	PE 142	Athletic Training II
PE 43	PE 150	Lifetime Fitness Concepts
PE 23	PE 151	Officiating Rec/Team Activities
PE 6A	PE 160	Physical Fitness
PE 6B	PE 161	Physical Fitness II
PE 6C	PE 162	Weight Training
PE 6D	PE 163	Weight Lifting II
PE 6E	PE 164	Aerobic Weight Training
PE 10A	PE 165	Basketball
PE 10B	PE 166	Volleyball
PE 13	PE 168	Self Defense
PE 2	PE 180	Tennis
PE 7	PE 181	Golf
PE 10C	PE 182	Softball
PE 10D	PE 183	Soccer
PE 10G	PE 184	Baseball
PE 10H	PE 185	Football Techniques/Conditioning
PE 35	PE 186	Beginning Aqua Aerobics
PE 40	PE 187	Fundamentals of Track/Field
PE 46	PE 188	Beginning Disc
PE 11B	PE 266	Advanced Volleyball
PE 27	PEDA 101	Dance Rhythmic Analysis
PE 21T	PEDA 150	Dance Production
PE 24	PEDA 151	World Dance
PE 26A	PEDA 152	Dance Choreography I
PE 26B	PEDA 153	Dance Choreography II
PE 21C	PEDA 160	Beginning Tap
PE 21D	PEDA 161	Intermediate Tap
PE 22A	PEDA 162	Ballroom Dance I
PE 22B	PEDA 163	Ballroom Dance II
PE 25A	PEDA 164	Creative Movement I
PE 25B	PEDA 165	Creative Movement II
PE 36A	PEDA 166	Ballet I
PE 36B	PEDA 167	Ballet II
PE 21P	PEDA 169	Alignment & Correctives I
PE 37A	PEDA 170	Jazz Dance I
PE 37B	PEDA 171	Jazz Dance II
PE 39A	PEDA 174	Modern Dance I
PE 39B	PEDA 175	Modern Dance II
PE 41A	PEDA 176	Dance Rehearsal/Performance I
PE 41B	PEDA 177	Dance Rehearsal/Performance II
PE 36C	PEDA 266	Ballet III
PE 36D	PEDA 267	Ballet IV
PE 37C	PEDA 270	Jazz Dance III
PE 37D	PEDA 271	Jazz Dance IV
PE 39C	PEDA 274	Modern Dance III
PE 39D	PEDA 275	Modern Dance IV
PE 41C	PEDA 276	Dance Rehearsal/Performance III
PE 41D	PEDA 277	Dance Rehearsal/Performance IV
PE 5	APE 160	Adapted Phys Exercise
PE 5C	APE 161	Adapted Virtual Reality Snow Skiing
PE 5D	APE 162	Adapted Virtual Reality Football
PE 5F	APE 163	Wheelchair Basketball
PE 5J	APE 164	Adapted Aerobic Dance
PE 5N	APE 165.0	Adapted Modern Dance
PE 5P	APE 166	Adapted Cardiovascular Training
PE 5Q	APE 167	Adapted Weight Training
PE 5R	APE 168	Adapted "Senior Moments" Ex Cls

PE 5S	APE 169	Adapted "Zipper Club" Cardiac Rhab
PE 5B	APE 180	Adapted Outdoor Adventure
PE 5E	APE 181	Therapeutic Horseback Riding
PE 5G	APE 182	Wheelchair Tennis
PE 5H	APE 183	Adapted Walking for Fun Fitness
PE 5K	APE 184	Adapted Aquatics
PE 5L	APE 185	Adapted Sports & Games
PE 5M	APE 186	Adapted Fishing
PHY SCI 1	PSCI 101	Principles of Phys Science
PHY SCI 14	PSCI 114	Environment & Energy
PHY SCI 15	PSCI 115	Fronties of Science
PHY SCI 28	PSCI 128	Special Topics
PHY SCI 38	PSCI 138	Cooperative Education
PHYSICS 10	PHYS 100	Introductory Physics
PHYSICS 28	PHYS128	Special Topics
PHYSICS 29	PHYS 129	Independent Study
PHYSICS 38	PHYS 138	Cooperative Education
PHYSICS 1A	PHYS 201	Eng Phys (Mechanics of Solids)
PHYSICS 1B	PHYS 202	Eng Phys (Fluids, Heat & Sound)
PHYSICS 1C	PHYS 203	Eng Phys (Electricity & Magnetism)
PHYSICS H1D	PHYS H204H	Eng Phys (Light & Modern Phys)
PHYSICS 2A	PHYS 221	General Phys
PHYSICS 2B	PHYS 222	General Phys
POL SCI 50	POLS 50	United States Government
POL SCI 1A	POLS 101	Intro to Political Science
POL SCI 1B	POLS 102	Intro to American Gov/Politics
POL SCI H1B	POLS H102	Honors American Gov/Pol
POL SCI 3	POLS 103	State & Local Government
POL SCI 10	POLS 110	Contemp World Affairs
POL SCI 11	POLS 111	UN Sys & International Issues
POL SCI 2	POLS 112	Comparative Government
POL SCI 20	POLS 120	Leadership
POL SCI 28	POLS 128	Special Topics
POL SCI 29	POLS 129	Independent Study
POL SCI 30	POLS 130	Intro to Paralegalism
POL SCI 31	POLS 131	Fund of Litigation for Paralegals
POL SCI 32	POLS 132	Research & Writing for Paralegals
POL SCI 33	POLS 133	Legal Ethics for Paralegals
POL SCI 34	POLS 134	Family Law for Paralegals
POL SCI 35	POLS 135	Tort Law for Paralegals
POL SCI 38	POLS 138	Cooperative Education
PSYCH 1A	PSYC 101	Intro Psychology
PSYCH 8	PSCY 108	Indent/Help Surv of Dysfunc Families
PSYCH H1A	PSYC H101	Honors Intro Psychology
PSYCH 1B	PSYC 102	Intro to Experimental Psych
PSYCH 3	PSYC 103	Personal & Social Adjustment
PSYCH 5	PSYC 105	Personal & Career Success
REL STS 1	RLST 101	Intro to Religious Studies
REL STS 5A	RLST 105	Intro to the Old Testament
REL STS 5B	RLST 106	Introduction to the New Testament
REL STS 10	RLST 110	World Religions
REL STS 15	RLST 115	Religion in America
REL STS 28	RLST 128	Special Topics
REL STS 29	RLST 129	Independent Study
RSP THY 38	RSPT 138	Cooperative Education
RSP THY 49	RSPT 149	Independent Study
RSP THY 30	RSPT 230	Intro to Respiratory Therapy
RSP THY 31	RSPT 231	Orient to Bsc Fund of Resp Thpy
RSP THY 32	RSPT 232	Patient Assess/Clin Apps of RT
RSP THY 33	RSPT 233	Intens Rsp Care/Adv Pulm Physio
RSP THY 34	RSPT 234	Neo/Ped Rsp Care
RSP THY 39	RSPT 239	Intro to Cont Mech Vent Support
RSP THY 41	RSPT 241	Orient to Bsc Principles of RT
RSP THY 42	RSPT 242	Patient Assess/Clin App of Rsp Care
RSP THY 43	RSPT 243	Resp Care Clinical Simulation
RES MGT 101	RMGT 1	Foodservice Train: Server
RES MGT 102	RMGT 2	Foodservice Train: Prep/Line Cook
RES MGT 103	RMGT 3	Foodservice Train: Host/ess
RES MGT 104	RMGT 4	Foodservice Train: Busser
RES MGT 105	RMGT 5	Foodservice Train: Cashier
RES MGT 106	RMGT 6	Foodservice Train: Dishwasher
RES MGT 107	RMGT 7	Bakery & Pastry Training
RES MGT 108	RMGT 8	Catering Training
NEW	RMGT 9	Concepts in Sanitation
RES MGT 75	RMGT 75	Crtv Cuisine Series: Fish & Shellfish
RES MGT 76	RMGT 76	Crtv Cuisine Series:Meats & Poultry
RES MGT 80	RMGT 80	Off-Premise Catering
RES MGT 81	RMGT 81	Food Svc Training - Prep/Line Cook
RES MGT 82	RMGT 82	Food Svc Training-Waiter/Waitress
RES MGT 83	RMGT 83	Kitchen/Dining Room Training
RES MGT 84	RMGT 84	Kitchen/Dining room Management
RES MGT 85	RMGT 85	Adv Restaurant Management
RES MGT 86	RMGT 86	Applied Food Svc Sanitation
RES MGT 87	RMGT 87	Principles of Professional Cooking
RES MGT 88	RMGT 88	Management by Menu
RES MGT 89	RMGT 89	Purchasing for Food Svc Mgrs
RES MGT 90	RMGT 90	Effective Food Svc Marketing
RES MGT 91	RMGT 91	Controlling Costs in Food Svc Mgmt
RES MGT 92	RMGT 92	Legal Aspects of Food Svc Mgmt
RES MGT 93	RMGT 93	Supervision in Hospitality Industry
RES MGT 20	RMGT 120	Introduction to Nutrition
RES MGT 38	RMGT 138	Cooperative Education
SOC 1	SOC 101	Intro to Sociology
SOC 2	SOC 102	American Social Problems
SOC 3	SOC 103	Marriage & Fam Life
SOC 7	SOC 107	Ethnic Exp in American Society
SOC 28	SOC 128	Special Topics
SOC 29	SOC 129	Independent Study
SOC 38	SOC 138	Cooperative Education
NEW	SPAN 51	Conversational Spanish II
SPAN 1	SPAN 101	Elementary Spanish
SPAN 1A	SPAN 101A	Fundamentals of Spanish 1A
SPAN 1B	SPAN 101B	Fundamentals of Spanish 1B
SPAN 2	SPAN 102	Elementary Spanish
SPAN 3	SPAN 103	Intermediate Spanish
SPAN 4	SPAN 104	Intermediate Spanish

SPAN 10	SPAN 110	Spanish for Spanish Speakers
SPAN 25	SPAN 125	Conversational Spanish I
SPAN 28	SPAN 128	Special Topics
SPAN 29	SPAN 129	Independent Study
SPAN 30	SPAN 130	Conv Span for Hlth Care Prof I
NEW	SPAN 131	Conv Span for Hlth Care Prof II
SPAN 35	SPAN 135	Spanish for Business
SPEECH 5	SPCH 105	Intercultural Communication
SPEECH 6	SPCH 106	Human Communication
SPEECH 7	SPCH 107	Family Communication
SPEECH 8	SPCH 108	Group Discussion
SPEECH 9	SPCH 109	Public Speaking
SPEECH 21	SPCH 121	Fingerspelling/Numbers I
SPEECH 22	SPCH 122	American Sign Language I
SPEECH 24	SPCH 124	American Sign Language III
SPCH 225	SPCH 125	American Sign Language IV
SPEH28	SPCH 128	Special Topics
SPCH 223	SPCH 123	SPCH 224
TA 1	TA 101	Intro to Theatre
TA 2	TA 102	History of Theatre
TA 4	TA 104	Oral Interpretation of Literature
TA 6	TA 106	Beginning Acting
TA 7	TA 107	Intermediate Acting
TA 8	TA 108	Rehearsal/Perf Studio for Yng Aud
TA 9	TA 109	Rehearsal/Perf Studio
TA 10	TA 110	Principles of Design for Theatre
TA 11	TA 111	Technical Stage Production
TA 13	TA 113	Stage Make-Up
TA 15	TA 115	Stagecraft
TA 16	TA 116	Authors of the Theatre
TA 17	TA 117	Technical Theatre I-Lighting/Sound
TA 20	TA 120	Costuming for the Theatre
TA 25A/B/C	TA 125A/B/C	Summer Theatre Workshop
TA 28	TA 128	Special Topics
TA 29	TA 129	Independent Study
TA 38	TA 138	Cooperative Education
TA 21C	TA 160	Beginning Tap
TA 21D	TA 161	Intermediate Tap
TA 36A	TA 166	Ballet I
TA 36B	TA 167	Ballet II
TA 37A	TA 170	Jazz Dance I
TA 37B	TA 171	Jazz Dance II
TA 39A	TA 174	Modern Dance I
TA 39B	TA 175	Modern Dance II
TA 36C	TA 266	Ballet III
TA 36D	TA 267	Ballet IV
TA 37C	TA 270	Jazz Dance III
TA 37D	TA 271	Jazz Dance IV
TA 39C	TA 274	Modern Dance III
TA 39D	TA 275	Modern Dance IV

WELD 50	WELD 50	Intro to Welding
WELD 51	WELD 51	Oxyacetylene Weld, Cut & brazing
WELD 52	WELD 52	Shielded Metal Arc Weld-Basic
WELD 53	WELD 53	Shielded Metal Arc Weld-Adv
WELD 54	WELD 54	Prep for Welder Certificate
WELD 57A	WELD 57A	Gas Tungsten Arc Weld-Basic
WELD 57B	WELD 57B	Gas Tungsten Arc Weld-Adv
WELD 58A	WELD 58A	Gas Metal Arc Weld-Basic
WELD 58B	WELD 58B	Gas Metal Arc Weld-Adv
WELD 59	WELD 59	Weld Symbols/Blueprint Reading
WELD 60ABCD	WELD 60ABCD	Welding Laboratory
WELD 98	WELD 98	Special Topics
WELD 99	WELD 99	Independent Study
WELD 38	WELD 138	Cooperative Education

ADMINISTRATION OF JUSTICE

AJ 8.0 (formerly AJ103) **PC 832.3 Campus Law Enforcement** **2.0 Units**
This course complies with the Commission on Peace Officer Standards and Training (POST) and satisfies the recent legislation regarding school police training for K-12 and community colleges. This course includes role of school police, laws and liability, tactical awareness in an educational environment, campus oriented policing, conflict resolution, incident command system, and dynamics of student behavior. Two lecture hours per week. This course will not apply to the Associate Degree. (No Prerequisite. Credit/No Credit) This course may be repeated as required.

AJ 25 (formerly AJ106) **Public Safety Dispatcher** **5.5 Units**
This course complies with the Commission on Peace Officer Standards and Training (POST) requirements for Public Safety Dispatchers. This course includes the criminal justice system, criminal law, communication technology, telephone and radio procedures, missing persons, domestic violence, cultural diversity, sexual harassment, gang awareness, emergency medical services and stress management. Five lecture, one and one-half laboratory hours per week. This course will not apply to the Associate Degree. (No Prerequisite. Credit/No Credit) This course may be taken four times.

AJ 30 (formerly AJ110) **PC 832 Firearms** **0.5 Unit**
This course satisfies the Commission on Peace Officer Standards and Training (POST) firearms certification for the Level III reserve and PC 832. Additionally, this course exceeds the State of California firearms safe handling and use certification required from any person purchasing a firearm in California. This course will not apply to the Associate Degree. Eight laboratory hours per week for three weeks. (Prerequisite. All students must have a DOJ criminal record clearance, in writing, from DOJ before registering for this class. Credit/No Credit) This course may be repeated as required.

AJ 31 (formerly AJ111) **Fingerprint Recognition and Classification** **3.0 Units**
This course is designed to give instruction and training to a person without any prior knowledge in fingerprinting classification or comparisons. Every person who successfully completes this course will be able to recognize and identify a known fingerprint and have the skills to recognize and identify an unknown fingerprint to known fingerprint. This course will not apply to the Associate Degree. Three lecture hours per week. (No prerequisite. Credit/No Credit) This course may be taken two times.

AJ 52 **Forensic Entomology** **3.0 Units**
Students will learn some of the various aspects of forensic entomology. Students will learn basic insect morphology and how it applies to the forensic field. This course will also cover the basic forensic collection techniques, laboratory procedures, analysis of the data, and how to write a written case report. See cross listing for Biology 52. Three lecture hours per week. (No prerequisite. Grade Option)

AJ 53 **Forensic Anthropology** **3.0 Units**
This course is designed to introduce the student to the theory and methods of forensic anthropology. The student will also become familiar with many of the basic techniques used by the forensic anthropologist through classroom activities and videos of case studies. See cross listing for Anthropology 53. Three lecture hours per week. (No prerequisite)

AJ 54 **Forensic Pathology** **3.0 Units**
The course examines the medico-legal investigation of death from accidental causes, suicides, homicides, blunt force/sharp force injuries, gunshot wounds, asphyxia and drowning. The course will cover the identification of individuals through dental remains and records, as well as sex, age and race determinations. See cross listing for Biology 54. Three lecture hours per week. (No prerequisite)

AJ 58 **PC 832 Laws of Arrest** **3.0 Units**
This course complies with the requirements of the Commission on Peace Officers Standards and Training for certification in PC 832. This course includes professionalism, law, evidence, investigation, arrest methods and control, community relations, and communication skills for interviewing and interrogation. Three lecture hours per week. (No prerequisite; Credit/No Credit) This course may be repeated as required.

AJ 64 **Basic Corrections Officer Academy** **8.0 Units**
This course satisfactorily meets the requirements of section 1020 of the California Administrative code, Minimum Jail Standards and the Basic Jail/Adult Institution requirements of the S.T.C. program. Seven lecture, three laboratory hours per week. (No prerequisite) This course may be repeated.

AJ 67 **Field Evidence Technician 3.5 Units**
This course will focus on the technical aspects of evidence collection, crime scene reconstruction, crime scene photography, evidence packaging, and court room testimony. The course will prepare the student to distinguish between trace, stain, and impression evidence and the role of these types of evidence in criminal investigations. Three lecture hours, plus three Saturday labs for a total of 24 laboratory hours. (No prerequisite; AJ 13 and AJ 33 recommended)

AJ 73 **Legal Aspects of Corrections** **3.0 Units**
This course provides students with an awareness of the historical framework, concepts and precedents that guide correctional environment, the civil rights of prisoners and responsibilities and liabilities of correction officials. Emphasis will be placed on federal case law and its application to correctional work. Three lecture hours per week. (No prerequisite)

AJ 74 **Multicultural Issues in Public Safety** **3.0 Units**
A theoretical and conceptual overview of multicultural concepts and issues: an application of those concepts and issues to the four public safety disciplines (corrections, fire safety, hazardous materials, law enforcement); identification of problems related to our increasingly diverse population; examination of strategies to overcome those problems, particularly in relation to the maintenance of social order. Three lecture hours per week. (No prerequisite)

AJ 75 **Juvenile Counselor Course** **6.0 Units**

The Juvenile Counselor Core Course is designed specifically for the individual seeking employment with the County Probation Department and working in any Juvenile Intake Center. This course is certified by the California Board of Corrections, Standards and Training Corrections (STC). The course includes the Criminal Justice System, psychological and medical issues in an intake center, identifying sociological and cultural issues, assaultive behavior and evasive tactics, supervision, security and counseling case work. In addition, First Aid/CPR must be completed as part of this course or have current certification. Five and one-half hours lecture, one and one-half laboratory hours per week. (No Prerequisite. Credit/No Credit) This course may be taken two times.

AJ 80 **Law Enforcement Academy**
(formerly AJ63) **Level III** **4.5 Units**

This course complies with the Commission on Peace Officers Standards and Training (POST) requirements for the Level III Reserve Peace Officer, as of July 1, 1999. This course includes professionalism and ethics; criminal law; laws of arrest and search and seizure; report writing, vehicle operations; use of force and force options; chemical agents; and firearms training. This course requires a Department of Justice (DOJ) criminal history prior to firearms training. Fifty-two lecture, seventy-six laboratory hours total per semester. (Prerequisite: AJ 58, AJ 30 or equivalent (must be current) and , DOJ criminal records check. Credit/No Credit) This course may be repeated as required.

AJ 81 **Level II Law Enforcement**
(formerly AJ68) **Modulated Basic Academy**
11.0 Units

The Level II Law Enforcement Academy is the third module in the modulated Basic Academy program. This course complies with the Commission on Peace Officer Standards and Training (POST) for the modulated Basic Academy. This course includes Community Victimology Crimes Against Property and Persons; Crimes Against Children; Specific Sex Crimes; Search and Seizure Law; Investigative Report Writing; Crimes in Progress and Patrol Tactics; Use of Force and Weaponry. Nine lecture, six laboratory hours per week. (Prerequisites: AJ 30, AJ 58 and AJ 80. Credit/No Credit.) This course may be repeated as required.

AJ 90 **Security Officers' Training Academy**
4.0 Units

Basic and Advanced Training for security officers, prospective security officers, and prospective law enforcement officers. Topics include introduction and history of the field of security, preparation for employment, client relationship, exercising powers of arrest, report writing, baton techniques, crowd control, handcuffing, searching, officers' safety, aerosol tear gas training (Mace), and first responder's first aid and CPR. Three lecture, three laboratory hours per week, plus an additional four hours laboratory to be arranged. (Prerequisite: Not have committed any acts or crimes constituting grounds for denial of a security officer's license under Business and Professions Code Sections 480 and 7546.5. Credit/No Credit) This course may be taken three times.

AJ 91 **Corrections Supervision and Control** **3.0 Units**

Students will learn to supervise and control inmates in the emotionally charged atmosphere of adult corrections. They will learn to detect and mitigate problems using motivational and communications techniques. They will learn to set and enforce standards. These skills are invaluable in a corrections environment. Three lecture hours per week. (No prerequisite) This course may be taken two times.

AJ 101 **Introduction to the**
(formerly AJ11) **Administration of Justice (CAN AJ 2)** **3.0 Units**

The history and philosophy of justice as it evolved throughout the world; in-depth study of the American system and the various sub-systems; roles and role expectations of criminal justice agents in their interrelationships in society; concepts of crime causations, punishments and rehabilitation; ethics, education and training for professionalism in the social system. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

AJ 102 **Criminal Procedures** **3.0 Units**
(formerly AJ12)

Legal processes from pre-arrest through trial, sentencing and correctional procedures. A review of the history of case and common law; conceptual interpretations of law as reflected in court decisions. A study of case law methodology and case research as the decisions impact upon the procedures of the justice system. Three lecture hours per week. CSU. (No prerequisite)

AJ 103 **Criminal Law** **3.0 Units**
(formerly AJ13) **(CAN AJ 4)**

Historical development, philosophy of law and constitutional provisions; definitions, classifications of crime and their applications to the system; legal research, review of case law, and concepts of law as a social force. Explores crimes against persons, property and the state as a social, religious, and historical ideology. Three lecture hours per week. CSU, UC (No prerequisite)

AJ 104 **Legal Aspects of Evidence**
(formerly AJ 14) **(CAN AJ 6)** **3.0 Units**

Origin, development, philosophy, and constitutional basis of evidence; constitutional and procedural considerations affecting arrest, search, and seizure; kinds and degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and case studies viewed from a conceptual level. Three lecture hours per week. CSU. (No prerequisite)

AJ 123 **Police Supervision and**
(formerly AJ23) **Leadership** **3.0 Units**

This course is designed for the first line supervisor within a law enforcement agency. Emphasis on the principles, traits, characteristics and styles of the professional leader. Concepts of command, management and leadership will be examined. Students will study some of the common problems and their solutions which confront police supervisors. Three lecture hours per week. CSU. (No prerequisite)

AJ 126 **Traffic Control** **3.0 Units**
(formerly AJ26)
Traffic law enforcement, regulation, and control; fundamentals of traffic accident investigation; California Vehicle Code. Three lecture hours per week. CSU. (No prerequisite)

AJ 127 **Crime and Delinquency** **3.0 Units**
(formerly AJ27)
Formerly Fundamentals of Crime and Delinquency.
An introduction to major types of criminal behavior, characteristics of offenders, factors which contribute to crime and delinquency; the criminal justice process; the function of law enforcement, the courts, probation, parole and institutions; changes in crime control and treatment processes, the role of society. Three lecture hours per week. CSU. (No prerequisite)

AJ 130 **Death Investigation** **3.0 Units**
(formerly AJ30)
A course designed to prepare the law enforcement officer with the appropriate knowledge and techniques for handling homicide investigations. Three lecture hours per week. CSU. (No prerequisite)

AJ 132 **Introduction to Corrections**
(formerly AJ32) **3.0 Units**
Formerly AJ 65
A survey of the field of correctional science. Historical development, current concepts and practice; explanations of criminal behavior; functions and objectives of the criminal justice system concerned with institutional, probation, and parole processes as they modify the offender's behavior; survey of professional career opportunities in public and private agencies. Three lecture hours per week. CSU. (No prerequisite)

AJ 133 **Writing for Criminal Justice**
(formerly AJ33) **3.0 Units**
Techniques of communicating facts, information, and ideas effectively in a simple, clear, and logical manner in the various types of criminal justice system reports; letters, memoranda, directives, and administrative reports; emphasis on criminal justice terminology, use of English, and organization of information; practice experience in note taking and report writing; presentation of testimony in court. Three lecture hours per week. CSU. (No prerequisite)

AJ 135 **Juvenile Law and Procedures**
(formerly AJ35) **3.0 Units**
Techniques of handling juvenile offenders and victims; prevention and repression of delinquency; diagnosis and referral; organization of community resources. Juvenile law and juvenile court procedures. Three lecture hours per week. CSU. (No prerequisite)

AJ 138 **Cooperative Education**
(formerly AJ38)
See Cooperative Education listing (1-8 units). CSU

AJ 140 **Communication Skills for Interviewing**
(formerly AJ40) **and Interrogation** **3.0 Units**
The course will focus on the technical and legal aspects of interview and interrogation within the Administration of Justice system. It will provide the student with the communication skills required to elicit reliable and admissible information from witnesses and suspects. Constitutional and Legislative law will be emphasized. CSU. Three lecture hours per week. (No prerequisite)

AJ 148 **Special Topics**
(formerly AJ48)
See Special Topics listing (Variable units). CSU

AJ 149 **Independent Study**
(formerly AJ49)
See Independent Study listing (1-3 units). CSU

AGRICULTURE and NATURAL RESOURCES

AGNR 50 **Equine Health** **3.0 Units**

Students learn the basics of proper veterinary care of the horse, including what to do before the veterinarian is called. Course introduces the diseases and lameness associated with the musculoskeletal system, as well as diseases of the respiratory, digestive, neurological, and reproductive systems. Emphasis is on preventive maintenance and managerial practices needed to keep the equine athlete, broodmare or family horse in good health in the High Desert Region of California. Three lecture hours per week. (No prerequisite) Grade option. This course may be taken four times.

AGNR 50A **Introduction to Equine Health and Disease Prevention; When to Call the Vet** **0.5 Unit**

Introduction to the anatomy and physiology of the horse and the impact of these sometimes fragile systems can impact overall equine health. Students learn to identify the indicators of good health using a first-aid check list and warning signs of disease. Nine hours total. (No prerequisite) Grade option. This course may be taken four times.

AGNR 50B **Equine Diseases, Toxicology and Parasites** **0.5 Unit**

Course emphasizes the early detection and prevention of these agents. Focus on West Nile Virus, Strangles, Rhinopneumonitis and other diseases prevalent in the High Desert. Students develop region-specific vaccination and worming regimens. Nine hours total. (No prerequisite) Grade option. This course may be taken four times.

AGNR 50C **Colic and Proper Feeding Practices** **0.5 Unit**

Students learn the common environmental factors that may cause digestive health problems like colic and diarrhea. Emphasis is laced on a balanced diet and proper feeding practices. Nine hours total. (No prerequisite) Grade option. This course may be taken four times.

AGNR 50D **Equine Lameness; Laminitis, Navicular and beyond** **0.5 Unit**

Students assess the pathogenesis of navicular Disease and Laminitis; describe common methods of treatment; evaluate the impact of these and other lameness on the athletic potential of the equine athlete. Techniques for diagnosis (radiography, ultrasound) and treatment (chiropractic, drugs) are explored. Nine hours total. (No prerequisite) Grade option. This course may be taken four times.

AGNR 50E **Equine Reproductive Health** **0.5 Unit**

The unusual reproductive conformation of the mare and the stallion and breeding practices has produced an inordinately low level of reproductive efficiency in modern horse breeds. Course presents the appropriate use of recent management and technology innovations: progesterone therapy, increased day-length, ultrasonic imaging, artificial insemination, cooled semen and embryo transfer. Nine hours total. (No prerequisite) Grade option. This course may be taken four times.

AGNR 50F **Equine Foaling and Neonatal Care** **0.5 Unit**

The successful foaling of a mare is fraught with problems from dystocia to assuring that the foal gets sufficient colostrum. Students develop a foaling checklist and guidelines on when to call for Veterinary assistance. Nine hours total. (No prerequisite) Grade option. This course may be taken four times.

AGNR 60 **Environmental Horticulture**
(formerly AG80) **Laboratory** **1.0-4.0 Units**

Horticulture laboratory setting for horticulture students to practice the skills gained from experience and traditional lecture/laboratory classes. This setting will further prepare students for employment in the horticulture industry. Three to twelve laboratory hours per week. (No prerequisite) This course may be taken four times.

AGNR 72 **Geospatial Technology I**
(formerly AG65L) **4.0 Units**

Provides a laboratory where students apply the skills gained from prior experience traditional lecture/laboratory classes using state of the art hardware and software. Students work alone or in groups to design a GIS (Geographic Information System) to address actual or simulated Natural Resource Conservation needs. Two lecture, six laboratory hours per week. (No prerequisite) This course may be taken four times.

AGNR 73 **Water Science** **3.0 Units**

A general introduction to water as a precious natural resource. Students will study: the sustainability of our local water supply; hydrology the unique California Water Story; water distribution; water quality and wastewater treatment; the chemistry of this amazing molecule and its life nurturing characteristics. This class is rich in field-study techniques, which include hands-on activities, labs and field trips that facilitate practical application. Qualified as state continuing education credit. Two lecture, three laboratory hours per week. (No prerequisite) This course may be taken three times.

AGNR 74 **Environmental Field Studies** **9.0 Units**

In this comprehensive course students learn the theory and field study skills necessary for a career or further study in Natural Resources Management. Students also design and implement real-world projects in Desert Restoration, Geographic Information Systems and Water Conservation in partnership with local mines and public agencies. Students will apply the latest technologies to the management of resources such as: water, soil, air, energy, minerals, vegetation, fish and wildlife. Much of the study occurs on location in our very unique Mojave Desert. Six lecture, nine laboratory hours per week. (No prerequisite) This course may be taken two times.

AGNR 75 **Conservation Research Laboratory** **1.0-4.0 Units**

Students design, implement and analyze applied research projects on the environmental issues of the Mojave Desert. Projects are student initiated or may be part of existing conservation projects with local mines and public agencies that include desert restoration, native plant propagation, soils rehabilitation and water management. Students apply field study skills and the latest natural resource management technologies like Geographic Information Systems in real-world situations. Several scholarship and internship opportunities are available to students in this program. Three laboratory hours per week, per unit. (Corequisite: AGNR 170) This course may be taken four times.

AGNR 80 **Master Gardener** **2.0 Units**

This course is intended for homeowners and professionals who wish to increase their proficiency in high desert gardening. Topics will include: plant selection, waterwise irrigation, fruit, vegetables, roses, fertilizers, mulches, soil amendments, composting, herbaceous plants, landscape design, pruning, maintenance, weed control, cactus, succulents, turf-grass and water features. One lecture, three laboratory hours per week. (No prerequisite. Grade Option.) This course may be taken four times.

AGNR 100 **General Animal Science**
(formerly AG31) **3.0 Units**

Discussion of breeds, types of enterprises, nutrition, reproduction and management of beef cattle, dairy cattle, sheep, swine, rabbits, poultry, and goats. Three lecture hours per week. One Saturday field trip required. CSU, UC. Offered Fall. (No prerequisite)

AGNR 101 **Animal Nutrition** **3.0 Units**
(formerly AG90)
This course covers modern nutritional techniques in large animal production and management. Anatomy of large animal digestive systems will be discussed along with feed composition and meeting large animal dietary requirements for maximum performance and growth. Students will formulate rations for a variety of livestock. Three lecture hours per week. CSU. (No prerequisite. Grade Option) This course may be taken three times.

AGNR 102 **Equine Science** **4.0 Units**
(formerly AG55)
An overview of the equine industry encompassing the role of the equine species throughout history. Breed selection, development, nutrition, diseases, preventative health, reproductive management, basic horsemanship, and management practices. Emphasis placed on the practices, breeds and career opportunities that are appropriate to the California horse industry. Four lecture hours per week. (No prerequisite) This course may be taken two times. CSU, UC.

AGNR 120 **Pest Management in**
(formerly OH19) **Environmental Horticulture**
3.0 Units
Students will learn how to employ the principles and concepts of managing insects, diseases and weeds of the landscape and nursery environment, and their identification and control. To include concept of Integrated Pest Management, laws, and regulations. Effective use of pesticides and herbicides will be emphasized. Two lecture, three laboratory hours per week. CSU. (No prerequisite.) This course may be taken four times.

AGNR 121 **Fundamentals of Environmental**
(formerly OH31) **Horticulture** **3.0 Units**
General course in environmental horticulture with emphasis on nursery operations, landscaping, turf management and floral industries. Topics include basic plant structure, cultural practices, propagation, structures and layout, pest management, houseplants, floral design, plant identification, turf grass care and survey of career opportunities. This class is recommended as a starting point for all landscape and horticulture certificate candidates. Two lecture, three laboratory hours per week. CSU. (No prerequisite) This course may be taken three times.

AGNR 122 **Plant Propagation** **3.0 Units**
(formerly OH32)
Techniques of plant propagation. Both sexual and asexual methods will be explored including propagation by seed, budding, grafting, cuttings, division, layering and tissue culture. Also included will be transplanting of container stock, potting soil media, and maintenance of plants. Propagation of California natives and drought tolerant plants are emphasized. Two lecture, three laboratory hours per week. CSU. (No prerequisite)

AGNR 123 **Introduction to Plant Science**
3.0 Units
This course provides an introduction to plant science with topics in plant structure and function and the environmental factors involved in plant growth and development. Students learn: plant physiology; plant reproduction and propagation; effects of soil, water, and climate; use of plants to meet human needs; sustainable horticultural practices; integrated pesty management; the role of new technologies in contemporary plant science. Application to Mojave Desert issues and to careers in Horticulture, Agriculture, Natural Resource Management and Restoration Ecology are emphasized. Two lecture, three laboratory hours per week. CSU. (No prerequisite. Grade option.)

AGNR 129 **Water Efficient Landscaping**
(formerly AG54) **3.0 Units**
This is a combination course covering the seven xeriscape principles: landscape planning and design; limited turf areas; efficient landscape irrigation; soil improvement and mulching; use of low water plants; disease, weed, and insect control; and appropriate landscape maintenance. Three lecture hours per week. CSU (No prerequisite. Credit/No Credit) This course may be taken two times.

AGNR 131 **Soil Science** **3.0 Units**
(formerly AG70)
This course provides a basic knowledge of the physical, chemical, and biological properties of soils and their characteristics. The course includes fundamental soil properties, soil and plant relationships, principles of soil formation, fertilizers and soil management, salinity, pH, erosion management, and non-agricultural uses of soil. Emphasis is placed on soil as a natural resource and on its conservation. Three lecture hours per week. CSU, UC. (No prerequisite) This course may be taken three times.

AGNR 138 **Cooperative Education**
(formerly OH38)
See Cooperative Education listing (1-8 units). CSU

AGNR 140 **Plant Materials and Usage I**
(formerly OH40) **3.0 Units**
Identification, growth habits and cultural requirements for plants common to the California landscape. Emphasis is placed on plants that have adapted to the climate of the high desert and ones that are drought tolerant. Two lecture, three laboratory hours per week. CSU. (No prerequisite.)

AGNR 141 **Plant Materials and Usage II**
(formerly AG75) **3.0 Units**
This class emphasizes the identification, growth habits, cultural requirements, seed collecting techniques and ornamental use of California native plants appropriate for use in southern California landscapes and desert revegetation. Plants emphasized will be California native plants adapted to the High Desert region. Plants to be studied will include those recommended by the California Native Plant Society. Two lecture, three laboratory hours per week. CSU, UC. (No prerequisite) This course may be taken four times.

AGNR 148 **Special Topics**
(formerly OH48)
See Special Topics listing (Variable units). CSU

AGNR 149 **Independent Study**
(formerly OH49)
See Independent Study listing (1-3 units). CSU

AGNR 150 Landscape Design 3.0 Units
(formerly OH39)
Fundamentals and history of landscape design for residential and commercial sites. Studies of color, texture, form, and use of landscape material. Emphasis will be on selection and placement of plant material, walks, patios, decks, and other structures for landscape use. Consideration will also be given to proper site layout with regard to existing elevations. The lab sessions will emphasize practice in design and drafting of actual landscape projects. Two lecture, three laboratory hours per week. CSU. This course may be taken three times.

AGNR 151 Landscape Construction 3.0 Units
(formerly OH17)
Techniques used in constructing wood, concrete, and masonry projects common in the landscape industry. Labs include using wood products for structures, decks, gazebos and fences. Estimating procedures, planning, mixing and forming for concrete walkways are identified. Two lecture, three laboratory hours per week. CSU. (No prerequisite)

AGNR152 Landscape Irrigation 3.0 Units
(formerly OH35)
Prepares students to design, install and maintain a water efficient landscape irrigation system. Topics include water supply, basic hydraulics, component identification and terminology, system layout, pipe sizing; types of heads, valves, controllers. Students will gain appreciation for water conservation and quality issues. Students will also learn to troubleshoot irrigation design and electrical systems. Two lecture, three laboratory hours per week. CSU. (No prerequisite) This course may be taken two times.

AGNR 153 Landscape Maintenance
(formerly OH36) Fundamentals 2.0 Units
Maintenance of trees, shrubs and ground covers, cultural requirements, pruning, fertilizing, and irrigation. Repair of irrigation systems and equipment. One lecture, three laboratory hours per week. CSU. (No prerequisite)

AGNR 154 Landscape and Nursery
(formerly OH43) Management 3.0 Units
A combination course covering the basics of landscaping and nursery management. Three lecture hours per week. CSU.

AGNR 160 Beginning Floral Design
(formerly OH34) 3.0 Units
Introduction to the theory of floral design, including principles and elements of design, color theory, identification of plant materials and preparation and care of plant material. Emphasis is placed on "hands on" floral designs, boutonnieres and corsages. Two lecture, three laboratory hours per week. CSU. (No prerequisite)

AGNR 161 Floral Design II 2.0 Units
(formerly OH37)
Continued application of principles in the art of floral design. Contemporary design theory emphasizing creativity, self expression, and professional design situations. One lecture, three laboratory hours per week. CSU. (No prerequisite) This course may be taken three times.

AGNR 170 Environmental Science 4.0 Units
(formerly AG70)
Use and protection of the worlds natural resources, including soil, water, forest, mineral, plant, and animal life, with particular attention to California conditions. Ecological principles, history of the conservation movement, modern problems in resource use, global environmental issues and the citizen's role in conservation. The unique nature of natural resource management and career opportunities in the Mojave Desert region are emphasized. Four lecture hours per week. CSU (No prerequisite) This course may be taken four times.

AGNR 171 Introduction to Geographic
(formerly AG71) Information Science 3.0 Units
This class will prepare students to construct a Geographic Information System for natural resource management and agriculture. Students will become proficient in the operation of ArcView software and be introduced to the 3D Analyst, Spatial Analyst, Image Analyst and Network Analyst extensions. This is a hands-on class where students work with actual case studies and data, appropriate to the management of natural resources in the Mojave Desert ecosystem. Two lecture, three laboratory hours per week. CSU (No prerequisite) This course may be taken four times.

ALLIED HEALTH

ALDH 50 Paramedic Anatomy and
(formerly AH50) Physiology and
Medical Terminology 4.0 Units
This is the introductory course of the Paramedic program. This course includes Basic Anatomy, Physiology, and Medical Terminology for the Paramedic. Eight lecture hours per week for eight weeks. Offered Summer. (No prerequisite) This course may be taken two times.

ALDH 51 Paramedic Introduction to EMS
(formerly AH51) 1.0 Unit
This course covers the roles and responsibilities of the EMT-P. It also includes the Emergency Medical Services System and EMS communication as it relates to the EMT-P. One lecture hour per week. Offered Fall. (No prerequisite) This course may be taken two times.

ALDH 52 Paramedic Cardiology 4.0 Units
(formerly AH52)
This course covers the cardiovascular system and includes anatomy and physiology of the heart, and application and interpretation of EKG's. Four lecture hours per week. Offered Fall. (No prerequisite) This course may be taken two times.

ALDH 53 Paramedic Pharmacology 3.5 Units
(formerly AH53)
This course will cover the general principles of pharmacology including calculations and administration of various medications. Three lecture, one and one half laboratory hours per week. Offered Fall. (No prerequisite) This course may be taken two times.

ALDH 54 **Paramedic Advanced Cardiac**
(formerly AH54) **Life Support** **1.0 Unit**
This course will provide a review of basic cardiology, pharmacology, and EKG interpretation used in Advanced Cardiac Life Support. One lecture hour per week. Offered Fall. (No prerequisite) This course may be taken two times.

ALDH 55 **Paramedic Emergency Medical**
(formerly AH55) **Services Theory** **10.0 Units**
This course covers the theoretical base of assessing and reporting all aspects of trauma and medical emergencies, and includes skills practice in the lab. Nine lecture, four laboratory hours per week. Offered Fall. (Prerequisites: Successful completion of ALDH 50, 51, 52, 53 and 54) This course may be taken two times.

ALDH 56 **Paramedic Clinical** **3.0 Units**
(formerly AH56)
This course is the first part of the student's internship as part of the Paramedic program. This includes 176 hours at an acute care facility performing Inland Counties Emergency Medical Agency skills. Nine laboratory hours per week. Offered Spring. (No prerequisite) This course may be taken two times.

ALDH 57 **Paramedic Field Internship**
(formerly AH57) **11.0 Units**
This course is the field internship portion of the Paramedic program. Students will spend 600 hours in the field with a transport service performing Emergency Medical Technician skills. Thirty-three hours of laboratory per week. Offered Spring. (No prerequisite) This course may be taken two times.

ALDH 60 **Nursing Assistant** **4.5 Units**
(formerly AH70)
Enables students to become familiar with basic principles of nursing, including procedures and techniques. Clinical experience is provided in extended care facilities. Students will learn to provide and meet the patient's basic physical and psychological needs and promote a spirit of restoration and independence in a safe, efficient, and competent manner. State approved precertification program. Does not guarantee certification. Must achieve a grade of C or better to take state certification examination. Eight and one-half lecture and eight and one-half laboratory hours per week for 12 weeks. Offered Fall, Spring. (Prerequisite: Documented clearance for any crime more serious than a minor traffic ticket. Fingerprinting will be required. Health exam prior to clinical rotation. (Corequisites: Completion of Healthcare Provider CPR program with current card or other Healthcare Provider CPR program.)

ALDH 61 **Home Health Aide** **1.5 Units**
(formerly AH78)
Enable students to become familiar with basic principles of nursing care in a home style setting. Clinical experience is provided in residential care facilities. Students will learn to provide and meet the patient's basic physical and psychological needs and to promote a spirit of rehabilitation and independence in a safe, efficient and competent manner. State approved certification course. A grade of C or better must be earned to receive state certification. Twenty lecture, twenty-four laboratory hours total. (Prerequisites: Must have current and active California CNA certificate. Students who have completed Victor Valley ALDH 60 Nursing Assistant course this semester, but have not completed the state exam may enter the course. State Home Health Aide certification will be contingent upon passing the State CNA Certification exam. Corequisite: Current Healthcare Provider CPR card or concurrent enrollment in ALDH 91 or other acceptable Healthcare Provider CPR course.)

ALDH 62 **Acute Care CNA** **4.0 Units**
(formerly AH79)
This course will allow the Certified Nursing Assistant to expand upon basic nursing practices to include those specific for the acute care setting. Clinical experience is provided in acute care facilities. Students will learn nursing practice skills related to the medical-surgical patient and will have an understanding of physical and psychosocial changes seen in the acute setting. Must achieve a grade of C or better to receive Victor Valley College Certification. Eight and one-half lecture, eight and one-half laboratory hours per week for six weeks. (Prerequisites: Must have a current and active State of California Certificate for Nursing Assistant (CNA). Students that have completed Victor Valley ALDH 60 Nursing Assistant course this semester, but have not completed the state exam may enter the program. Certification of completion by Victor Valley College will be contingent upon the student also passing the State CNA Certification exam. Corequisite: Current Healthcare Provider CPR card.)

ALDH 71 **Emergency Medical Technician I**
(formerly AH71) **(Ambulance)** **8.0 Units**
The first phase of training in the Emergency Medical Technician I (Ambulance) career structure. Covers all techniques of emergency medical care considered the responsibility of the Emergency Medical Technician. Course emphasizes the development of student skill in recognition of symptoms of illness and injuries and proper procedures of emergency care; course includes certification in professional CPR. Approved by the Inland County Emergency Medical Agency; certificate of completion awarded. Seven lecture, three laboratory hours per week, plus an additional two lecture, ten laboratory hours to be arranged for CPR. Offered Fall, Spring, Summer. (Prerequisites: 18 years of age by clinical rotation and CPR training.)

ALDH 72 **Emergency Medical Technician**
(formerly AH81) **(Ambulance) Refresher Course**
1.0 Unit
Thirty hour refresher course required for renewal of Emergency Medical Technician I Certificate. New Certificate of Completion awarded. Course approved by the Inland County Emergency Medical Agency. Eight lecture, twenty-four laboratory hours total. Offered Fall, Spring. (No prerequisite) This course may be taken four times.

ALDH 76 **Athletic Training III** **2.0-6.0 Units**
(formerly AH76)
In this course, students will provide the pre-participation, on-site first aid and event maintenance for fall/winter/spring sports programs at VVC (baseball, basketball, football, golf, soccer, softball, tennis, volleyball and wrestling.) Experience will include but is not limited to, prophylactic taping and padding, immediate first aid, monitoring vital signs, completion of accident forms, proper use of universal biohazard precautions, supervision of safe playing conditions and coaching tech

niques, recognition of medical emergencies, assisting other medical personnel as needed, game preparation and pre-participation medical screenings. Eighteen laboratory hours per week. See cross listing for PE 76. (Prerequisite: ALDH 141 or PE 141 Athletic Training I, or equivalent.) This course may be taken four times.

ALDH 77 Athletic Training IV 2.0-6.0 Units
(formerly AH77)
In this course, students will provide the care to athletes involved in fall/winter/spring sports programs at VVC (baseball, basketball, football, golf, soccer, softball, tennis, volleyball and wrestling.) Experience will include but is not limited to development and implementation of rehabioitation protocols. Use of modalities including, whirlpool, ultrasound, ice, Emergency Medical Services, hydrocolator, Range of Motion exercises, joint mobilization, strengthening exercises (isokinetic, isotonic, isometric), cardiovascular conditioning and proprioceptive exercises. See cross listing for PE 77. Eighteen laboratory hours per week. Offered Fall. (Prerequisite: ALDH 141 or PE 141 Athletic Training I, or equivalent.) This course may be taken four times.

ALDH 80 Pharmacology 3.0 Units
(formerly AH80)
Current concepts of pharmacology, its relationship to patient care, and legal and ethical considerations are covered. Basic mechanisms of drug action, administration, toxicity, side effects, and dosages are also included. Three lecture hours per week. Offered Fall. (No prerequisite)

ALDH 81 Medical Insurance 3.0 Units
(formerly AH85)
Intensive instruction and drill in completing medical insurance forms for the private sector, industrial Medi-Care, Medi-Cal, Medi-Care/Medi-Cal patient. Basic skills in billing, collecting, banking, and preparation of payroll. Three lecture hours per week. Offered Fall, Spring. (No prerequisite)

ALDH 82 Medical Office Procedures
(formerly AH86) 3.0 Units
Provide practice in medical office procedures, medical correspondence, case histories, insurance forms, and reports. Study of telephone techniques, medical record keeping, and filing. Verbal communication with patients, other offices and facilities. Preparation and assistance with common back office procedures. Three lecture hours per week. Offered Fall. (No prerequisite)

ALDH 82C Medical Office Procedures-
(formerly AH86C) Clinical 5.0 Units
This course is designed to provide the externship component of Allied Health 86, Medical Office Procedures. The individual students will complete 270 hours of practical clinical experience. This will be performed in rotation sequence in the offices and clinics of qualified physicians located throughout the High Desert. Fifteen laboratory hours per week. Offered Spring. (No prerequisite)

ALDH 83 Basic Arrhythmia 3.0 Units
(formerly AH83)
A review of the general anatomy and physiology of the heart and coronary system, the complications associated with acute myocardial infarction with strong electrophysiological/arrhythmogenic component. Upon successful completion, the student will receive a certificate in Basic Electrocardiography and Arrhythmia Interpretation. (This course has been approved by the Board of Registered Nursing for Continuing Education credit, Provider #00047.) Three lecture hours per week. Offered Fall. (No prerequisite)

ALDH 84 Intravenous Therapy 2.0 Units
(formerly AH84)
Approved by the Board of Vocational Nursing and the Board of Registered Nursing for Continuing Education. Emphasis placed on providing factual knowledge base, patient-centered psychological aspects, venipuncture techniques and materials. Legal aspects, especially as they relate to LVN's and RN's, are included. Thirty hours of theory/laboratory and six hours of clinical practice in IV therapy. Offered Spring. (No prerequisite)

ALDH 90A Certified Phlebotomy Technician1A 3.0 Units
Certified Phlebotomy Technician 1A prepares a student with the education, training, experience, and examination requirements as specified by the California Department of Health Services, to perform skin punctures or venipunctures in a hospital, clinical lab or doctor's office. A minimum of 40 hours of didactic and 40 hours of practical clinical instruction will be required. Two lecture and two and one-half laboratory hours per week. (Prerequisite: High School graduate or GED, or documentation of equivalent education.) This course may be taken four times.

ALDH 90B Certified Phlebotomy Technician1B 2.5 Units
Certified Phlebotomy Technician 1B is designed for a student who has less than 1040 hours of job experience and has completed 50 successful venipunctures and 10 successful skin punctures within the past 5 years. This course will prepare the student for the State examination by covering 20 hours of basic didactic material and 20 hours of advanced didactic material in Phlebotomy techniques. This course does not require the student to attend a clinical component. Ten lecture hours per week for four weeks. (Prerequisite: High School graduate or GED or documentation of equivalent education. Employed within the past 5 years as a Phlebotomist with less than 1040 hours of experience. Completion of 50 successful venipunctures and 10 successful skin punctures.) This course may be taken four times.

ALDH 90C **Certified Phlebotomy Technician1C** **1.0 Unit**

Certified Phlebotomy Technician 1C is designed for a student who has 1040 hours or greater of on the job experience and who has completed 50 successful venipunctures and 10 successful skin punctures within the past 5 years. This course will prepare the student for the State examination by covering 20 hours of advanced didactic material in Phlebotomy techniques, blood borne pathogens, anti-coagulation theory, specimen collection and transportation. This course does not require the student to attend a clinical component. Five lecture hours per week for four weeks. (Prerequisite: High School graduate or GED or documentation of equivalent education. Employed within the past 5 years as a Phlebotomist with 1040 hours or greater of on the job experience. Completion of 50 successful venipunctures and 10 successful skin punctures.) This course may be taken four times.

ALDH 91 **Basic CPR**
(formerly AH95) **(Cardiopulmonary Resuscitation)** **0.5 Unit**

Emergency first aid procedure that consists of recognizing respiratory and cardiac arrest and starting the proper application of cardiopulmonary resuscitation to maintain life until advanced life support is available. Upon successful completion of the course, the student will receive a Basic CPR Certificate from the American Heart Association. Two lecture, ten laboratory hours. Offered Fall, Spring, Summer. (No prerequisite) This course may be taken four times.

ALDH 92 **Basic CPR Instructors Course**
(formerly AH97) **1.0 Unit**

This course for instructors is to advance students who have been certified previously as rescuers into the higher category of instructor. Will include an in-depth review of background material and instructional methodologies. Upon successful course completion, the student will be certified as a basic instructor by the American Heart Association. Two lecture hours per week for nine weeks. (No prerequisite)

ALDH 102 **Contemporary Problems in**
(formerly AH12) **Personal and Community Health** **3.0 Units**

An introductory course emphasizing the scientific basis for making rational decisions on contemporary health problems of personal and social significance. Course includes personal nutrition, fitness, reproduction, and disease control. The course includes a review of other current issues of community health. See cross listing for PE 102. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

ALDH 125 **Medical Aspects of Drugs**
(formerly AH25) **and Alcohol** **3.0 Units**

This course will provide an in-depth study of the physiological effects and medical consequences of drug and alcohol use and abuse, including the effects on the central nervous system and behavior. The pharmacological aspects of drug and alcohol use will be presented including metabolism of various drugs, the meaning and implication of "half-life," tolerance, dependence, addiction process, and withdrawal. Categories of substances covered will include major and minor stimulants, alcohol, depressants, psychotropic drugs, opiates, marijuana, hallucinogens, and other prescription and over-the-counter drugs. Three lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite)

ALDH 138 **Cooperative Education**
(formerly AH38)

See Cooperative Education listing (1-8 units). CSU

ALDH 139 **Medical Terminology** **3.0 Units**
(formerly AH39)

This course describes the body's anatomical systems with stress placed on medical terms, their use, spelling, and pronunciation. The use of these terms is defined in regard to anatomy, physiology, treatment, and surgery. Three lecture hours per week. CSU. (No prerequisite)

ALDH 141 **Athletic Training I** **3.0 Units**
(formerly AH20)

Introduction to principles of athletic training, including prevention, evaluation, treatment, and rehabilitation of common athletic injuries. Two and one half lecture hours, one and one half laboratory hours per week. CSU. See cross listing for PE 141. (No prerequisite. Interest and/or experience in athletics and sports recommended)

ALDH 142 **Athletic Training II** **3.0 Units**
(formerly AH21)

This course will build on the students basic knowledge of human anatomy and athletic injuries. Topics will include emergency procedures, current health concerns of the athlete, protective devices, advanced taping techniques and injury management. See cross listing for PE 142. Three lecture hours, one laboratory hour per week. CSU. (Prerequisite: ALDH 141 or PE 141 Athletic Training I, or equivalent.)

ALDH 148 **Special Topics**
(formerly AH48)

See Special Topics listing (Variable units). CSU

ALDH 149 **Independent Study**
(formerly AH49)

See Independent Study listing (1-3 units). CSU

ANATOMY

See Biology.

ANTHROPOLOGY

ANTH 6 **Introduction to GIS for the Social Sciences** **3.0 Units**

This course is the first of four in the Geographic Information System (GIS) for the Social Sciences Certificate Program. The course explores the basics of GIS as both a discipline and a tool within different disciplines, how GIS functions in such capacity, and the application potential across different disciplines. Students will learn the necessary terminology and map

ping skill needed to understand how GIS operates, as well as initial hands-on practice with the current GIS industry software for both the East and West Coasts and Global Positioning Systems (GPS). This course will not apply to the Associate Degree. Six lecture hours per week for nine weeks. (No prerequisite. Grade Option.) This course may be taken again only with a grade of "D" or lower.

ANTH 7 Intermediate GIS for the Social Sciences 3.0 Units

This course is the second of four in the Geographic Information System (GIS) for the Social Sciences Certificate Program. The course expands upon the basic knowledge of GIS and its applications presented in the introductory course. Students will learn how to use the skills and knowledge from the previous class to construct map overlays, projections and imagery using industry current software for both the East and West Coasts, as well as use established database information for GIS applications. This course will not apply to the Associate Degree. Six lecture hours per week for nine weeks. (Prerequisites: Introduction to GIS for the Social Sciences or permission of the instructor based upon work or other academic experience. Grade Option.) This course may be taken again only with a grade of "D" or lower.

ANTH 8 Advanced GIS for the Social Sciences 3.0 Units

This course is the third of four in the Geographic Information System (GIS) for the Social Sciences Certificate Program. The course combines and expands the essential knowledge of GIS and its applications presented in the first two courses in this certificate program. Students will learn how to use the skills and knowledge from the previous classes to use 3-D modeling with GIS applications. Students will also explore the professional capabilities of GIS technology by examining advanced methods of data acquisition and display as used by local, state and federal agencies. This course will not apply to the Associate Degree. Six lecture hours per week for nine weeks. (Prerequisites: Intermediate GIS for the Social Sciences or permission of the instructor based upon work or other academic experience. Grade Option.) This course may be taken again only with a grade of "D" or lower.

ANTH 9 Field Applications in GIS for the Social Sciences 3.0 Units

This course is the fourth of four in the Geographic Information System (GIS) for the Social Sciences Certificate Program. The course involves considerable computer work with actual field mapping projects at several locations in southern California. Students will learn how to use the skill and knowledge from the previous classes to gather data from known sources such as transportation records or population census and utilize original observation from the field projects to create a professional level project that makes use of GIS technology. This course will not apply to the Associate Degree. Six lecture hours per week for nine weeks. (Prerequisites: Advanced GIS for the Social Sciences or permission of the instructor based upon work or other academic experience. Grade Option.) This course may be taken again only with a grade of "D" or lower.

ANTH 53 Forensic Anthropology 3.0 Units
(formerly ANTHRO53)

This course is designed to introduce the student to the theory and methods of forensic anthropology. The student will also become familiar with many of the basic techniques used by the forensic anthropologist through classroom activities and videos of case studies. See cross listing for AJ 53. Three lecture hours per week. Offered Fall. (No prerequisite)

ANTH 54L Archaeology Lab 2.0 Units
(formerly ANTHRO54L)

This course is designed as a laboratory class that compliments the Archaeology Field Course. The class introduces the students to laboratory work in archaeology, providing hands-on experience. Students learn to process the materials collected from the field class archaeology site, from cleaning and identification to their analysis. Offered Fall. (No prerequisite.)

ANTH 101 Introduction to Physical
(formerly ANTHRO1) Anthropology
(CAN ANTH 2) 3.0 Units

Biological anthropology explores the biological and social development and adaptations of humans in relation to their different natural environments. This course provides information on how and why human populations vary within and between themselves; how and why humans have changed biologically and behaviorally through time; physical and behavioral comparisons between human and non-human primates; and biological and behavioral development from the earliest to modern times. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer, Winter. (No prerequisite)

ANTH 101L Physical Anthropology Laboratory
(formerly ANTHRO1L) 1.0 Unit

Coordinated with the lecture, this lab provides hands-on experience in human genetics, variation, and evolution; comparisons of non-human primate behavior; knowledge of the human skeleton, and forensic identification methods. Three laboratory hours per week. CSU, UC. Offered Fall, Spring, Summer, Winter. (Prerequisite or corequisite ANTH 101. Grade Option)

ANTH 102 Introduction to Cultural
(formerly ANTHRO2) Anthropology 3.0 Units

Cultural anthropology explores the social aspect of being human, in context with the multicultural approach. This course provides international comparisons of all aspects of culture such as societal organization, economy, marriage and family, language development, gender issues, religion, and traditions and rituals. The development and evolution of cultural groups is discussed in relation to how several of these groups successfully adapt to particular environments. Drawing from anthropology and other social sciences, the history and development of Modern World System Theory and its effect on culture groups worldwide is outlined. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer, Winter. (No prerequisite. Grade Option)

ANTH 103 **Introduction to Archaeology**
(formerly ANTHRO3) **3.0 Units**
Archaeology is the study of human groups in the context of their historic and prehistoric past. Through excavation of archaeology sites and laboratory analysis, archaeologists investigate and reconstruct the time frame, the life activities, and technological changes of ancient cultures. This course provides information on the history and development of archaeology, the archaeological methods used to excavate sites, how archaeologists relate the artifacts and other remains found on the sites to human behavior, how the sites within a region relate to each other and the natural surroundings, and the theoretical framework that helps to explain the behavioral and technological changes through time. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite. Grade Option)

ANTH 104 **Anthropology Field Class**
(formerly ANTHRO4) **3.0 Units**
This course provides the student with hands-on experience in the excavation and investigation of an archaeology site and the materials contained in archaeology sites, the archaeological methods used to excavate sites, and how archaeologists relate the artifacts and other remains found on the sites to human behavior. One-half hour lecture, seven and one half laboratory hours per week. CSU. Offered Spring. (No prerequisite. Grade Option) This course may be taken three times.

ANTH 105 **Indians of North America**
(formerly ANTHRO5) **3.0 Units**
An introduction to various Native American groups north of Mexico. Includes the study of their prehistory, subsistence patterns, religion, social and political organization, and culture change. Emphasis will be given to those groups of the Western United States with a special focus on Indians of California. Three lecture hours per week. CSU, UC. Offered Fall. (No prerequisite)

ANTH 128 **Special Topics**
(formerly ANTHRO28)
See Special Topics listing (Variable units). CSU

ANTH 129 **Independent Study**
(formerly ANTHRO29)
See Independent Study listing (1-3 units). CSU

ANTH 151 **World Dance** **2.0 Units**
(formerly ANTHRO24)
This course is designed to introduce students to the elements of dances and dance techniques from specific regional areas, cultures, or ethnic groups. This introduction will include the geographic, historic, social and aesthetic factors that have shaped the development and function of such movement. Dances from at least three culture areas will be used as examples during a semester, and will vary from semester to semester. See cross listing for PE 151. One lecture, three laboratory hours per week. CSU, UC (No prerequisite) This course may be taken four times.

ART AND DESIGN

ART 51 **Macromedia Flash Application Design** **3.0 Units**
This class introduces web application design and development to students with no prior programming experience. Students will be instructed and practice creating media rich web applications. Instruction will cover using screens, built in component and behaviors. The course will introduce ActionScript programming. At the end of the course students will be able to design and construct Flash applications This class is the second class in a three-part series. Two lecture, three lab hours per week. (No prerequisite) This course may be taken four times.

ART l01 **Survey of Art History**
(formerly ART1A) **(CAN ART 2)** **3.0 Units**
An historical survey of significant art from prehistoric times through the fourteenth century. Three lecture hours per week. CSU, UC. Offered Fall. (No prerequisite) (ART 101 + ART 102 = CAN ART SEQ A)

ART l02 **Survey of Art History**
(formerly ART1B) **(CAN ART 4)** **3.0 Units**
An historical survey of significant art from the Renaissance through modern times. Three lecture hours per week. CSU, UC. Offered Spring. (No prerequisite) (ART 101 + ART 102 = CAN ART SEQ A)

ART 104 **Film As An Art Form** **3.0 Units**
(formerly ART4)
Film as a form of art and its construction as a communicative, expression of global culture, politics, literature and gender will be studied. Important films will be viewed that address these topics. Students will learn to be more critical viewers of media and its presentation of world culture. Three lecture hours per week. CSU, UC. (No prerequisite)

ART 105 **Introduction to Art** **3.0 Units**
(formerly ART5)
This course is a general introduction to the visual arts, its nature, vocabulary, media, and history. The course examines the historical and contemporary value of art to both the individual and society. Consideration will also be given to a study of the organization and component parts of the visual art and the various media used in the making of art. Three lecture hours per week. CSU, UC. Offered Fall and alternate summers. (No prerequisite)

ART 106 **Art Concepts** **3.0 Units**
(formerly ART6)
This illustrated lecture course will introduce students to the practice, theory and history of art. Art's impact upon our contemporary society as well as its reflection of history and meaning will be investigated. Three lecture hours per week. CSU, UC. Offered Spring and alternate summers. (No prerequisite. Grade Option.)

ART 107 The Art and Life of Greece
(formerly ART7) 3.0 Units
This is an illustrated lecture course. Conceptual analysis of the effects of Greek art upon Greek life will be investigated from the formative years of 1100 B.C. (the evolvement of Western civilization) and present depictions. Students will investigate the visual statements, mythology, philosophies, and other matters relative to the Greek portrayals of man and his existence at specific times. Three lecture hours per week. CSU, UC. Offered alternate semesters. (No prerequisite)

ART 108 The Art and Life of Italy 3.0 Units
(formerly ART8)
This is an illustrated lecture course. The art and life of Italy will be analyzed from a conceptual aspect with the involvement of critical thinking. Study will involve the formation of the Roman Empire to present times, with emphasis upon the high renaissance, legend, philosophies, religions, and other matters relative to the Roman portrayals of man and his statements of life through art at specific times. Three lecture hours per week. CSU, UC. Offered alternate semesters. (No prerequisite)

ART 109 Survey of African American Art
3.0 Units
This course will survey the arts of the African peoples in diaspora from traditional African arts to contemporary times. Focus will be on identification of artists, art styles within their historical, cultural, political framework and exploration of aesthetic preference. Three lecture hours per week. CSU, UC. (No prerequisite. Grade Option.)

ART 112 Design I 3.0 Units
(formerly ART12A)
The focus of this course will be on the basics of design utilizing black and white graphic elements. Emphasis will be placed on the principles and practices of design involved in the production of art forms. Lectures will demonstrate examples of design in classic and contemporary works of art. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring and alternate summers. (No prerequisite)

ART 113 Design II 3.0 Units
(formerly ART12B)
A continuation of Art 12A utilizing the same principles of design expanded to color and three dimensional objects. Critiques and lectures will focus student's evaluative skills in applying comprehension of art history to contemporary concepts of design. Two lecture, three laboratory hours per week. CSU, UC. Offered Spring. (No prerequisite)

ART 114 Color, Structure, and Design
(formerly ART12C) (CAN ART 16) 3.0 Units
Formerly Color and Design
This course is an expansion of the problem solving goals completed in Art 12B. Mass, form, volume as derived in analytical and critical dissection of design foundations will include the approaches to the science of color and three dimensional structures presented in problematic situations for students' resolution through critical thinking and self-resourcefulness. Student success will be evaluated through critiques, knowledge of historical fact deriving contemporary validity. Discussion of computer graphics. Repetition of this course provides opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered Spring. (No prerequisite)

ART 115 Water-Based Media 3.0 Units
(formerly ART15)
An introduction to basic water-based media and the methods used for applying pigment to paper. Color theory, design principles and a comprehensive history of the medium will be included. Two lecture, three laboratory hours per week. CSU, UC. (No prerequisite) This course may be taken two times.

ART 120 Acrylic Painting
(formerly ART17A) (CAN ART 10) 3.0 Units
Designed as a problem solving course, students will be introduced to the basics of acrylic painting, design, conceptual thought, history, and composition. A knowledge of history and artists will be an asset to the students' comparative analogies of their work and its message. Repetition of this course provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall. (No prerequisite) This course may be taken four times.

ART 121 Intermediate Acrylic Painting
(formerly ART17B) 3.0 Units
Problems of techniques, medium control, and creative validity will be presented to the student as he seeks to ratify his quality judgments in visual form through resolutions derived from a historical context and implemented into contemporary focus. Critical thinking is intended to be a major component of this course. Repetition of this course provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered Spring. (No prerequisite) This course may be taken four times.

ART 122 Introduction to Life Drawing
(formerly ART18A) (CAN ART 24) 3.0 Units
Concentrated study and analysis of the human form using basic art materials in drawing from models. Repetition provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

ART 123 Intermediate Life Drawing
(formerly ART18B) 3.0 Units
Analysis and implementation of techniques to show expression, mass, motion; critical visualization by drawing direct studies from live models. Repetition provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

ART 124 Anatomy for Life Drawing
(formerly ART18C) 3.0 Units
Critical dissection of anatomical and physiological studies incorporated into the fine art of life drawing. Repetition of this course provides skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite) This course may be taken four times.

ART 125 **Drawing and Composition**
(formerly ART25A) **(CAN ART 8)** **3.0 Units**
A basic drawing course involved with compositional arrangements designed to assist the student to function as an artist through critical thinking. The student should achieve an understanding of the relationship of language visualization to logic, which should lead to the ability to analyze, criticize, and advocate original ideas, to reason inductively and deductively, and to reach factual or judgmental conclusions based on sound inferences drawn from unambiguous statements of knowledge or belief. Repetition of this course provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite) This course may be taken four times.

ART 126 **Drawing and Composition**
(formerly ART25B) **3.0 Units**
An intermediate drawing course emphasizing development of skills in various media and studies of compositional methods. Extended concentration is to include the ability to distinguish fact from judgment, belief from knowledge, and skills in elementary inductive and deductive visual processes which include an understanding of the formal and informal fallacies of language and thought in the artistic process. Repetition of this course provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered Spring. (No prerequisite) This course may be taken four times.

ART 128 **Special Topics**
(formerly ART28)
See Special Topics listing (Variable units). CSU

ART 129 **Independent Study**
(formerly ART29)
See Independent Study listing (1-3 units). CSU

ART 130 **Caricature Illustration** **3.0 Units**
(formerly ART30)
The origins and development of political, humorous, literary, social, and historical caricaturization with practical applications through drawing illustrations. Repetition of this course provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU. Offered alternate years. (No prerequisite) This course may be taken two times.

ART 131 **35 MM Color Slide Photography**
(formerly ART31) **3.0 Units**
A basic course in color slide photography featuring 35 mm cameras, slide films, indoor and outdoor photography, emphasis on originality and composition. Students will prepare a final slide presentation with narration or edited music. Repetition of this course provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU. Offered alternate years. (No prerequisite)

ART 132 **Advertising Art** **3.0 Units**
(formerly ART32)
Implementation of the elements and principles of advertising design. Involvement will include the invention of highly controlled images which are confronted by the consumer. Repetition of this course provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU. Offered alternate years. (No prerequisite) This course may be taken two times.

ART 133 **Computer Graphics** **3.0 Units**
(formerly ART33A)
The scope of this course is introductory in nature, involving the theory, basic principles, and techniques of computer-generated hi-resolution graphics, video ditherizing, image transfer, and fonts generation. Through individual resourcefulness and problem solving, the student will be presented with exercises involving critical thinking. Two lecture, three laboratory hours per week. CSU, UC. Offered Spring. (No prerequisite)

ART 138 **Cooperative Education**
(formerly ART38)
See Cooperative Education Listing (1-8 units). CSU

ART 141 **Sculpture I** **3.0 Units**
(formerly ART41)
Students explore the principles of three-dimensional forms in space in order to develop an understanding of the relationship between form, space and materials and process. In order to construct their own ideas in space students will become familiar with a variety of materials, which may include clay, metal, wood and stone. Two lecture, three laboratory hours per week. CSU (No prerequisite)

ART 142 **Sculpture II** **3.0 Units**
Students explore the traditional materials and techniques of sculpture such as building armatures, sculpting in wax, plaster and clay, mold making methods, and surface treatments for the sculptural pieces which may include stains, patina, antiquing and waxing of plaster and applying slips and glazes to clay. Two lecture, three laboratory hours per week. (No prerequisite)

ART 150 **Introduction to Oil Painting**
(formerly ART19A) **3.0 Units**
A basic course in painting with oil pigments. Emphasis in this course will involve problem solving experiences and critical judgments to correlate with individual aesthetics and to obtain unambiguous visual statements of knowledge and belief through the artistic process. Repetition of this course provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered alternate semesters. (No prerequisite. ART 125 and ART 112/113 recommended) This course may be taken four times.

ART 151 **Intermediate Oil Painting**
(formerly ART19B) **3.0 Units**
There will be continuation of techniques covered in Art 19A with an emphasis upon aesthetics, art history, critical analysis, and creativity. The student, through his own resourcefulness, is to formulate problems of compositional design, control of the medium and establish value judgments based upon fact that will be reflected in his works. Repetition of this course provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered alternate semesters. (No prerequisite) This course may be taken four times.

ASTRONOMY

ASTR 50 Working As Astronomers 2.0 Units
(formerly ASTRONOMY 50)
Astronomical instrument operation, elementary celestial mechanics and sidereal time computations, observing practices and principles. One lecture, three laboratory hours per week. (No prerequisite.)

ASTR 101 Descriptive Astronomy 3.0 Units
(formerly ASTRONOMY1)
A comprehensive study of astronomy. The historical development of astronomy, the structure of the solar system, modern techniques and instruments, the character of nebulae and galaxies, stellar character and theories, and the philosophical implications of astronomical discoveries. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

ATHLETICS

ATHL 120 Varsity Baseball 3.0 Units
(formerly ATHLTCS 20)
Students will learn the basic skills, rules, and strategies for competition in baseball. CSU, UC (UC maximum credit allowed: 4 units) Offered Spring. This course may be taken four times.

ATHL 120P Preparation for Intercollegiate
(formerly ATHLTCS 20) Men's Baseball 1.0 Unit
This Men's Baseball course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. Three laboratory hours per week. CSU (No prerequisite) Offered Fall, Summer. This course may be taken four times.

ATHL 121 Varsity Basketball (Men) 1.5 Units
(formerly ATHLTCS 21)
Students will learn the basic skills, rules, and strategies for competition in basketball. CSU, UC (UC maximum credit allowed: 4 units) Offered Fall, Spring. This course may be taken four times.

ATHL 121P Preparation for Intercollegiate
(formerly ATHLTCS 44) Men's Basketball 1.0 Unit
This Men's Basketball course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. Three laboratory hours per week. CSU (No prerequisite) Offered Fall, Spring, Summer. This course may be taken four times.

ATHL 122 Varsity Basketball (Women)
(formerly ATHLTCS 22) 1.5 Units
Students will learn the basic skills, rules, and strategies for competition in basketball. CSU, UC (UC maximum credit allowed: 4 units) Offered Fall, Spring. This course may be taken four times.

ATHL 122P Preparation for Intercollegiate
(formerly ATHLTCS 41) Women's Basketball 1.0 Unit
This Women's Basketball course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. Three laboratory hours per week. CSU (No prerequisite) Offered Fall, Spring, Summer. This course may be taken four times.

ATHL 123 Cross Country (Women) 3.0 Units
(formerly ATHLTCS 23)
A cross country course designed to develop the knowledge, skills and strategy for the serious and recreational competitive athlete in collegiate long distance running. The course is designed to emphasize competition and will help the athlete achieve a higher level of competitive ability through instruction of skills, techniques, strategy and personal evaluation during or after competition. The students will be given an opportunity to compete at a wide range of competitive levels. CSU, UC. (No prerequisite. Recommended: high school or club cross country running.) This course may be taken four times.

ATHL 123P Preparation for Intercollegiate
(formerly ATHLTCS 23P) Women's Cross Country 1.0 Unit
This Women's Cross Country course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. Three laboratory hours per week. CSU (No prerequisite) Offered Spring, Summer. This course may be taken four times.

ATHL 124 Varsity Football 3.0 Units
(formerly ATHLTCS 24)
Students will learn the basic skills, rules, and strategies for competition in football. CSU, UC (UC maximum credit allowed: 4 units) Offered Fall. This course may be taken four times.

ATHL 124P Preparation for Intercollegiate
(formerly ATHLTCS 24P) Football 1.0 Unit
This Football course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. Three laboratory hours per week. CSU (No prerequisite) Offered Fall, Summer. This course may be taken four times.

ATHL 125 Varsity Golf (Men) 3.0 Units
(formerly ATHLTCS 25)
Students will learn the basic skills, rules, and strategies for competition in golf. CSU, UC (UC maximum credit allowed: 4 units) Offered Spring. This course may be taken four times.

ATHL 125P Preparation for Intercollegiate
(formerly ATHLTCS 25P) Golf 1.0 Unit
This Golf course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. Three laboratory hours per week. CSU (No prerequisite) Offered Fall, Summer. This course may be taken four times.

ATHL 126 Varsity Soccer (Women) 3.0 Units
(formerly ATHLTCS 26)
Students will learn the basic skills, rules, and strategies for competition in soccer. CSU, UC (UC maximum credit allowed: 4 units) Offered Spring. This course may be taken four times.

ATHL 126P **Preparation for Intercollegiate**
(formerly ATHLTCS 45) **Women's Soccer** **1.0 Unit**
This Women's Soccer course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. Three laboratory hours per week. CSU (No prerequisite) Offered Spring, Summer. This course may be taken four times.

ATHL 127 **Varsity Softball** **3.0 Units**
(formerly ATHLTCS 27)
Students will learn the basic skills, rules, and strategies for competition in softball. CSU, UC (UC maximum credit allowed: 4 units) Offered Spring. This course may be taken four times.

ATHL 127P **Preparation for Intercollegiate**
(formerly ATHLTCS 43) **Women's Softball** **1.0 Unit**
This Women's Softball course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. Three laboratory hours per week. CSU (No prerequisite) Offered Fall, Summer. This course may be taken four times.

ATHL 128 **Varsity Tennis (Women)** **3.0 Units**
(formerly ATHLTCS 28)
Students will learn the basic skills, rules, and strategies for competition in tennis. CSU, UC (UC maximum credit allowed: 4 units) Offered Spring. This course may be taken four times.

ATHL 128P **Preparation for Intercollegiate**
(formerly ATHLTCS 28P) **Women's Tennis** **1.0 Unit**
This Women's Tennis course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. Three laboratory hours per week. CSU (No prerequisite) Offered Fall, Summer. This course may be taken four times.

ATHL 129 **Varsity Tennis (Men)** **3.0 Units**
(formerly ATHLTCS 29)
Students will learn the basic skills, rules, and strategies for competition in tennis. CSU, UC (UC maximum credit allowed: 4 units) Offered Spring. This course may be taken four times.

ATHL 129P **Preparation for Intercollegiate**
(formerly ATHLTCS 29P) **Men's Tennis** **1.0 Unit**
This Men's Tennis course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. Three laboratory hours per week. CSU (No prerequisite) Offered Fall, Summer. This course may be taken four times.

ATHL 130 **Varsity Volleyball** **3.0 Units**
(formerly ATHLTCS 30)
Students will learn the basic skills, rules, and strategies for competition in volleyball. CSU, UC (UC maximum credit allowed: 4 units) Offered Fall. This course may be taken four times.

ATHL 130P **Preparation for Intercollegiate**
(formerly ATHLTCS 30P) **Volleyball** **1.0 Unit**
This Volleyball course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. Three laboratory hours per week. CSU (No prerequisite) Offered Fall, Summer. This course may be taken four times.

ATHL 131 **Varsity Golf (Women)** **3.0 Units**
(formerly ATHLTCS 31)
Students will learn the basic skills, rules, and strategies for competition in golf. CSU, UC (UC maximum credit allowed: 4 units) Offered Spring. This course may be taken four times.

ATHL 132 **Varsity Wrestling (Men)** **3.0 Units**
(formerly ATHLTCS 32)
Students will learn the basic skills, rules, and strategies for competition in wrestling. CSU, UC credit pending (UC maximum credit allowed: 4 units) Offered Fall. This course may be taken four times.

ATHL 132P **Preparation for Intercollegiate**
(formerly ATHLTCS 32P) **Wrestling** **1.0 Unit**
This Wrestling course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. Three laboratory hours per week. CSU (No prerequisite) Offered Fall, Summer. This course may be taken four times.

ATHL 133 **Men's Cross Country** **3.0 Units**
(formerly ATHLTCS 33)
A cross country course designed to develop the knowledge, skills and strategy for the serious and recreational competitive athlete in collegiate long distance running. The course is designed to emphasize competition and will help the athlete achieve a higher level of competitive ability through instruction of skills, techniques, strategy and personal evaluation during or after competition. Students will be given an opportunity to compete. Ten laboratory hours per week. CSU, UC. (No prerequisite) This course may be taken four times.

ATHL 133P **Preparation for Intercollegiate**
(formerly ATHLTCS 33P) **Men's Cross Country** **1.0 Unit**
This Men's Cross Country course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. Three laboratory hours per week. CSU (No prerequisite) Offered Fall, Summer. This course may be taken four times.

ATHL 134 **Track and Field (Women)** **3.0 Units**
(formerly ATHLTCS 34)
Students will demonstrate knowledge of rules, meet organizations, proper mechanics of running, strategies necessary for competition in collegiate track and selected field events. Students must demonstrate a desire to learn, train, accept challenges, and excel in collegiate track and field. Ten laboratory hours per week. CSU, UC (UC maximum credit allowed: 4 units) Offered Spring. This course may be taken four times.

ATHL 134P **Preparation for Intercollegiate**
(formerly ATHLTCS 34P) Women's Track and Field 1.0 Unit
This Women's Track and Field course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. Three laboratory hours per week. CSU (No prerequisite) Offered Spring, Summer. This course may be taken four times.

ATHL 135 **Track and Field (Men) 3.0 Units**
(formerly ATHLTCS 35)
Students will demonstrate knowledge of rules, meet organizations, proper mechanics of running, strategies necessary for competition in collegiate track and selected field events. Students must demonstrate a desire to learn, train, accept challenges, and excel in collegiate track and field. Ten laboratory hours per week. CSU, UC (UC maximum credit allowed: 4 units) Offered Spring. This course may be taken four times.

ATHL 135P **Preparation for Intercollegiate**
(formerly ATHLTCS 35P) Men's Track and Field 1.0 Unit
This Men's Track and Field course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. Three laboratory hours per week. CSU (No prerequisite) Offered Fall, Summer. This course may be taken four times.

ATHL 140 **Varsity Soccer (Men) 3.0 Units**
(formerly ATHLTCS 40)
Students will demonstrate knowledge of rules, basic skills, and offensive and defensive strategies necessary to compete at collegiate level for soccer. Ten laboratory hours per week. CSU, UC. (No prerequisite) This course may be taken three times.

ATHL 140P **Preparation for Intercollegiate**
(formerly ATHLTCS 42) Men's Soccer 1.0 Unit
This Men's Soccer course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. Three laboratory hours per week. CSU (No prerequisite) Offered Spring, Summer. This course may be taken four times.

AUTOMOTIVE

AUTO 50 **Introduction to Automotive Technology 4.0 Units**
This course provides the student with a basic knowledge of automotive systems and components. Information covered will serve as a foundation and prerequisite for advanced automotive classes. Topics covered will include safety, tool and shop equipment use, industry practices, technician certification, theory and design of the major automotive systems. Three lecture, three laboratory hours per week. (No prerequisite)

AUTO 51 **Automotive Engines and Drive Trains 12.0 Units**
This course covers diagnosis and repair of the components of the following assemblies: engine, cylinder block, cylinder heads, clutches, transmissions, drive shafts, and final drives. Engines and transmissions will be disassembled, inspected and determination made of the service ability of existing parts. The need for replacement parts will be established as the components are reassembled. Engine cooling, exhaust systems and simple tune-up procedures will be included. Eight lecture, twelve laboratory hours per week. (Prerequisite: AUTO 50) This course may be taken four times.

AUTO 51A **Engine Repair 6.0 Units**
This course provides the student with the knowledge necessary to diagnose and repair engines. Information covered will include diagnosis and repair of cylinder head and valve train, engine block, lubrication, cooling systems and general engine assembly. Four and one-half lecture, four and one-half laboratory hours per week. (No Prerequisites) This course may be taken four times.

AUTO 52.0 **Automotive Cylinder Head**
(formerly AUTO 83) **Machinist 5.0 Units**
This course covers diagnosis and repair of cylinder heads and their components. Four lecture and three laboratory hours per week. (No prerequisite)

AUTO 53.0 **Automotive Machinist/Cylinder**
(formerly AUTO 75) **Block Specialist 4.0 Units**
This course covers diagnosis and repair of the components of Cylinder Block: cylinder bores, oil galley, crank shaft bores, camshaft bores. Related parts will be disassembled inspected and determination made of the serviceability of existing parts. The need for replacement parts will be established as the components are reassembled. Three lecture hours, three laboratory hours per week. (Prerequisite: AUTO 51)

AUTO 54.0 **Automotive Machinist/Engine**
(formerly AUTO 132) **Assembly Specialist 4.0 Units**
This course covers the inspection and reassembly of an engine assembly. Operations include valve timing component installation and verification, inspection and mounting of cylinder heads on the cylinder block, all peripheral engine components (water pump, fuel pump, intake manifold, exhaust manifold, fuel system, ignition system), and initial setup and test run. This course will not apply to the Associate Degree. Three lecture, three laboratory hours per week. (Prerequisite: AUTO 51)

AUTO 55.0 **Automotive, Standard**
(formerly AUTO 56) **Transmission and Differential Overhaul 5.0 Units**
This course covers diagnosis and repair of the components of standard transmission systems, gears, synchronizers, bearings, clutches, and electronic controls. Standard transmissions and related parts will be disassembled, inspected and determination made of the serviceability of existing parts. The need for replacement parts will be established as the components are disassembled, inspected and reassembled. Four and one-half lecture, four and one-half laboratory hours per week. (Prerequisite: AUTO 51) This course may be taken four times.

AUTO 56.0 (formerly AUTO 125) **Automatic Transmission Overhaul** **5.0 Units**
This course covers diagnosis and repair of the components of automatic transmission systems: clutches, bands, servo valve bodies, hydraulic pumps, cases, governors, torque converters, and electronic controls. Automatic transmissions and related parts will be disassembled, inspected and determination made of the serviceability of existing parts. The need for replacement parts will be established as the components are disassembled, inspected and reassembled. Three lecture, six laboratory hours per week. (Prerequisite: AUTO 51) This course may be taken four times.

AUTO 56A (formerly AUTO 58) **Transmission Computer Systems** **2.0 Units**
This course covers techniques used by the Automotive Industry to diagnose and repair transmission computer systems. Instruction will cover the diagnosis and repair of runability problems relating to electronic malfunctions of the computer controlled transmission. One and one-half lecture, one and one-half laboratory hours per week. (Prerequisite: AUTO 56) This course may be taken four times.

AUTO 57.0 (formerly AUTO 52) **Automotive Brakes, Suspension and Wheel Alignment** **12.0 Units**
This course covers diagnosis and repair of the components of brakes and suspension systems: Drum and disc brakes, brake hydraulics, power assist units, front and rear suspension types, shocks and McPherson struts, steering linkages, power steering pumps. Brakes and suspension related parts will be disassembled, inspected and determination made of the serviceability of existing parts. The need for replacement parts will be established as the components are reassembled. Alignments for both front and rear wheel types will be covered on different alignment apparatuses. Eight lecture, twelve laboratory hours per week. (Prerequisite: AUTO 50) This course may be taken four times.

AUTO 57A (formerly AUTO 65) **Automotive Alignment and Brake Maintenance** **4.0 Units**
This course covers diagnosis and repair and maintenance of the components of the brake and suspension systems: drum and disc brakes, brake hydraulics, power assist units, front and rear suspension systems, shocks and struts, steering linkages, power steering systems. All aspects of alignments will be covered including two wheel, four wheel, and struts, on different alignment apparatuses. Maintenance of all parts of the brake and suspension systems will be covered. Three lecture hours, three laboratory hours per week. (No prerequisite) This course may be taken four times.

AUTO 58 (formerly AUTO 81) **Automotive Lubrication Technician** **2.0 Units**
This course covers techniques used by the Automotive Industry to perform routine preventative maintenance. Instruction will cover changing automotive fluids, lubrication, safety inspections, installing filters and ignition components. Three lecture hours, three laboratory hours per week for six weeks. (No prerequisite)

AUTO 59.0 (formerly AUTO 82) **Automotive Tire Technician** **2.0 Units**
This course covers techniques used by the Automotive Industry to perform duties of a tire technician. Instruction will cover brake and suspension inspections, mounting, balancing, and repairing tires. Three lecture hours, three laboratory hours per week for six weeks. (No prerequisite)

AUTO 60 (formerly AUTO 69) **Automotive Suspension and Alignment** **4.0 Units**
This course covers diagnosis and repair of the components of automotive suspension, front and rear suspensions, shocks, struts, control arms, bushings, steering components, and related parts will be disassembled, inspected and determination made of the serviceability of existing parts. The need for replacement parts will be established as the components are disassembled, inspected and reassembled. Alignments of different types of vehicles, including two and four wheel alignments, computer and non computer alignments will be completed. Three lecture hours, three laboratory hours per week. (Prerequisite: AUTO 50 or equivalent experience in the automotive repair field.) This course may be taken four times.

AUTO 61.0 (formerly AUTO 68) **Automotive Brakes** **4.0 Units**
This course covers diagnosis and repair of the components of automotive brake systems: basic disassembled, inspected and determination made of the serviceability of existing parts. The need for replacement parts will be established as the components are disassembled inspected and reassembled. Three lecture hours, three laboratory hours per week. (Prerequisite: AUTO 50 or equivalent experience) This course may be taken four times.

AUTO 63.0 (formerly AUTO 55) **Introduction to Diesel Engine Repair** **4.0 Units**
This course covers the techniques used by the Automotive and Medium Truck industries to diagnose and repair compression pressure combustion designed, four stroke, diesel fueled engines. Instruction will cover diesel engine design and operation, diesel fuel systems, air induction systems, light/medium duty electrical, and introduction to electronic fuel control. This course emphasizes the theory and operation of light/medium diesel engines. Three lecture, three laboratory hours per week. (Prerequisite: AUTO 50)

AUTO 63A (formerly AUTO 74) **Advanced Diesel Engine Repair** **4.0 Units**
This course covers the techniques used by heavy duty truck industries to diagnose and repair compression pressure combustion designed, four stroke and two stroke diesel fueled engines. Instruction will cover diesel engine design and operation, diesel fuel systems, air induction systems, heavy duty electrical, and introduction to electronic fuel control. This course emphasizes hands-on frame and shop engine overhaul. Three lecture, three laboratory hours per week. (Prerequisite: AUTO 51) This course may be taken four times.

AUTO 64.0 (formerly AUTO 79) **Medium/Heavy Duty Truck Suspension and Steering 4.0 Units**
This course will provide students with the knowledge and techniques used by the trucking industry to diagnose, adjust, and repair medium/heavy duty truck suspension and steering systems. Instruction will cover theory, inspection, maintenance, and repair of suspension and steering systems. Three lecture hours, three laboratory hours per week. (No prerequisite) This course may be taken three times.

AUTO 65.0 (formerly AUTO 73) **Heavy Duty Diesel Truck Lubrication and Inspection Technician 4.0 Units**
This course covers the techniques used by the Trucking Industry to perform routine preventative maintenance on heavy duty diesel trucks. Instruction will cover changing fluids, lubrication, safety inspections, and installing filters. Three lecture, three laboratory hours per week. (No prerequisite) This course may be taken four times.

AUTO 67.0 (formerly AUTO 88) **Heavy Duty Truck Air Brakes 4.0 Units**
This course covers the techniques used by the trucking industry to diagnose and repair heavy duty truck air brake systems. Instruction will cover theory, inspection, maintenance, and repair of air brake systems. Three lecture, three laboratory hours per week. (No prerequisite) This course may be taken two times.

AUTO 68.0 (formerly AUTO 89) **Heavy Duty Truck Hydraulic Brakes 6.0 Units**
This course covers the techniques used by the trucking industry to diagnose and repair heavy duty truck hydraulic brake systems. Instruction will cover theory, inspection, maintenance, and repair of hydraulic brake systems. Four and one-half lecture, four and one-half laboratory hours per week. (No prerequisite) This course may be taken two times.

AUTO 70.0 (formerly AUTO 87) **Small Engine Repair 3.0 Units**
This covers the fundamentals of small internal combustion engines and their uses in various forms of equipment and light vehicles. Topics covered will include, but not limited to, theory of small internal combustion engines, troubleshooting, repair and small engine applications. Two lecture, three laboratory hours per week. (No prerequisite) This course may be taken three times.

AUTO 71.0 (formerly AUTO 96) **Motorcycle Engine Repair 4.0 Units**
This course provides the student with the knowledge necessary to diagnose and repair motorcycle engines/transmissions. Information covered will include engine diagnosis, disassembly and inspection, valve reconditioning, bearing replacement, piston and ring service, and engine reassembly. Three lecture, three laboratory hours per week. (No prerequisite) This course may be taken two times.

AUTO 73.0 (formerly AUTO 78) **Motorcycle Service Tune Up and Maintenance 4.0 Units**
This course provides the student with the knowledge necessary to perform motorcycle tune up and maintenance. Information covered will include chassis and suspension systems, servicing schedules and procedures, tire care, tune up schedules and procedures, wheel lacing, truing, and balancing, brake systems, clutch systems, drive systems, general shop procedures and service writing. Three lecture hours, three laboratory hours per week. (No prerequisite) This course may be taken two times.

AUTO 74.0 **Motorcycle Fuel and Emission Systems Repair 4.0 Units**
This course provides the student with the knowledge necessary to diagnose and repair motorcycle fuel and emission systems. Information covered will include a study of carburetor types, construction and operating principles, fuel injection principles, supercharging and turbocharging principles, two and four stroke motorcycle exhaust principles, motorcycle emission control principles, diagnosis and repair, fuel and emission system performance analysis. Three lecture hours, three laboratory hours per week. (No prerequisite) This course may be taken two times.

AUTO 75.0 **Motorcycle Electrical and Ignition Systems Repair 4.0 Units**
This course provides the student with the knowledge necessary to diagnose and repair motorcycle ignition and electrical systems. Information covered will include electrical theory; motorcycle electrical circuitry and wiring schematics; electrical component identification, diagnosis and repair; motorcycle ignition systems identification, diagnosis and repair; ignition system performance analysis. Three lecture, three laboratory hours per week. (No prerequisite) This course may be taken two times.

AUTO 77.0 (formerly AUTO 62) **Automotive Service Writing and Shop Manager 2.0 Units**
This course prepares students to manage an automotive repair shop. Topics covered include work order preparation, parts and labor estimating, parts ordering, office and shop organization, writing a legal work order, sales skills, and customer relations. One and one-half lecture, one and one-half laboratory hours per week. (No prerequisite) This course may be taken four times.

AUTO 77L (formerly AUTO 62L) **Automotive Service Writing and Shop Manager Laboratory 2.0 Units**
This course prepares students to effectively write automotive service orders and manage an automotive repair shop. Topics covered include labor guide look up and labor calculation, work order preparation, parts and labor estimating, parts ordering, office and shop organization, writing a legal work order, sales skills, and customer relations. Six laboratory hours per week. (No Prerequisite. Credit/No Credit) This course may be taken four times.

AUTO 78.0 (formerly AUTO 63) **Auto Parts Specialist** **4.0 Units**

This course prepares students for employment in an auto parts store. Topics include basic systems, parts, sales, and merchandising techniques. Three lecture, three laboratory hours per week. (No prerequisite) This course may be taken four times.

AUTO 78L (formerly AUTO 63L) **Auto Parts Counter Person Laboratory** **2.0 Units**

This course prepares students to perform the duties of a counter person in an auto parts store. Topics covered include building on the skills learned in Auto 63 which include customer contacts, telephone technique, sales, merchandising, and repair order entry. Six laboratory hours per week. (Prerequisite or Corequisite: AUTO 78. Credit/No Credit) This course may be taken four times.

AUTO 79.0 (formerly AUTO 53) **Automotive Tune-Up, Emission Control, and Fuel System** **12.0 Units**

This course covers techniques used by the automotive industry to diagnose and repair ignition systems, fuel systems and emission control systems. Instruction will cover the diagnosis and repair of conventional and early electronic ignition systems, conventional and feed back carburetors, and emission control devices. Eight lecture, twelve laboratory hours per week. (Prerequisite: AUTO 50) This course may be taken four times.

AUTO 79A (formerly AUTO 80) **Basic Tune-Up** **2.0 Units**

This course covers techniques used by the Automotive Industry to diagnose and repair fuel and ignition systems. Topics will cover the diagnosis and repair of conventional and electronic ignition systems, fuel systems, and introduction to automotive computers. Three lecture hours, three laboratory hours per week for nine weeks. (No prerequisite)

AUTO 79B (formerly AUTO 115) **Trouble Shooting and Repair of Ignition and Fuel Systems** **4.0 Units**

This course covers techniques used by the automotive industry to diagnose and repair ignition systems and fuel systems. Topics covered included the diagnosis and repair of conventional and electronic ignition systems, conventional and feed back carburetors, along with emission control devices. Three lecture, three laboratory hours per week. (No prerequisite) This course may be taken four times.

AUTO 80.0 (formerly AUTO 54) **Automotive Computers, Electronics and Electrical Systems** **12.0 Units**

This course covers techniques used by the automotive industry to diagnose and repair computer, fuel injection, and electronic ignition systems. Instruction will cover the diagnosis and repair of electronic ignition systems, alternators and starters, computers, and basic electrical and electronic concepts as they apply to the automobile. Eight lecture, twelve laboratory hours per week. (Prerequisite: AUTO 79 or equivalent) This course may be taken four times.

AUTO 80A (formerly AUTO 119) **Automotive Computers, Electronics, and Electrical Systems** **4.0 Units**

This course covers techniques used by the automotive industry to diagnose and repair computer and fuel injection systems. Topics covered include the diagnosis and repair of electronic ignition systems, alternators and starters. Basic electrical and electronic concepts as they apply to the automobile. Three lecture, three laboratory hours per week. (No prerequisite) This course may be taken four times.

AUTO 81.0 (formerly AUTO 67) **Automotive Computer Systems** **2.5 Units**

This course covers techniques used by the Automotive Industry to diagnose and repair computer systems including On-Board Diagnostic II. Instruction will cover the diagnosis and repair of computer related electronic ignition, fuel injection, and emission systems. One and one-half lecture hours, three laboratory hours per week. (Prerequisites: Auto 79 or Auto 83A) This course may be taken four times.

AUTO 82.0 (formerly AUTO 93B) **Automotive Electrical Repair** **4.0 Units**

This course provides the student with the knowledge necessary to diagnose and repair automotive malfunctions including lighting systems, electrical instruments and accessories, electrical door components, air bags, and alarm systems. Information covered will include electrical fundamentals, test equipment, electrical circuits, electrical malfunctions, wiring diagrams, and electrical diagnosis. Three lecture, three laboratory hours per week. (No prerequisite) This course may be taken four times.

AUTO 83.0 (formerly AUTO 59) **Introduction to Smog Check Referee Technology and Basic Business Skills** **4.0 Units**

This course covers the techniques used by the California State Smog Referee to assist consumers with the proper procedures or performing smog inspections, cost waivers, low-income intervention, and Bureau of Automotive Repair actions. Topics covered will include the proper operation of office machines, emission manuals, smog inspection procedures, and job procurement skills. Three lecture, three laboratory hours per week. (No prerequisite. Credit/No Credit) This course may be taken three times.

AUTO 83A (formerly AUTO 60A) **Fundamental Clean Air Emissions Basic Area** **4.0 Units**

This course prepares students to pass the California State Smog Examination for a basic emissions area. Topics covered include emission laws, the diagnosis and repair of computer, fuel systems, ignition systems, and electrical and electronic concepts as they apply to the automobile. Review of automotive fundamentals to level of Bureau of Automotive Repair requirement. Three lecture, three laboratory hours per week. (No prerequisite)

AUTO 83B (formerly AUTO 60B) **California Clean Air Emissions Basic Area Course** **2.0 Units**

This course prepares students to take the California State Smog Examination for basic emissions area. Topics covered include emission and engine fundamentals, emission laws, and operation of the TAS (test analyzer system). Three lecture, three laboratory hours for nine weeks. (No prerequisite) This course may be taken two times.

AUTO 83C **Smog Check Program Update 2003** **1.0 Unit**

This course provides the student with knowledge necessary to perform a smog inspection in accordance with Bureau of Automotive Repair guidelines. Information covered will include preconditioning procedures, proper use of test equipment, current laws and regulations, consumer waiver and extension procedures. This class satisfies the BAR requirement for the Smog Check Program Update 2003 course. Four lecture, two laboratory hours per week. (No prerequisite) This course may be taken four times.

AUTO 83D **Basic Area Clean Air**
(formerly AUTO 60D) **Car Course** **4.0 Units**

The new Bureau of Automotive Repair (BAR) course provides the student with the knowledge necessary to perform a smog inspection in a basic inspection area according to BAR guidelines, generic On Board Diagnostic II (OBD II) systems. Information covered will include preconditioning procedures, proper use of smog test equipment, current laws and regulations, consumer waiver and extension procedures, generic OBD II information. This class satisfies the BAR requirement for the Smog Check Program Update 2003 Course, Basic Area Clean Air Car Course, and OBD II update classes. Three lecture, three laboratory hours per week. (No prerequisite) This course may be taken four times.

AUTO 84.0 **Enhanced Area California**
(formerly AUTO 61) **Clean Air Car Course** **1.5 Units**

This course prepares students to take the Advanced California State Smog Examination for an enhanced emissions area. Topics covered include emission laws, the diagnosis and repair of computer, fuel systems, ignition systems, electrical and electronic concepts as they apply to the automobile. This course trains technicians to use BAR '97 loaded mode test and repair diagnostic equipment. This class satisfies the Bureau of Automotive Repair requirements for the 20-hour update class and the 8-hour dynamometer training. Three lecture, four laboratory hours per week for six weeks. (No prerequisite) This course may be taken four times.

AUTO 85.0 **Engine Performance** **1.0 Unit**
(formerly AUTO 91)

This course provides the student with the knowledge necessary to take a California Alternative Test for Engine Performance. Information covered will include engine testing and diagnosis, fuel management, ignition systems, computer theory and testing. Successful completion of this course satisfies the California Bureau of Automotive Repair's requirements for engine performance. One and one-half lecture, one and one-half laboratory hours per week for nine weeks. (No prerequisite) This course may be taken three times.

AUTO 85A **Advanced Engine Performance**
(formerly AUTO 92) **1.0 Unit**

This course provides the student with the knowledge necessary to take a California Alternative Test for Advanced Engine Performance. Information covered will include engine testing and diagnosis, fuel management, ignition systems, computer diagnosis and repair. Successful completion of this course satisfies the California Bureau of Automotive Repair's requirements for engine performance. One lecture, three laboratory hours per week for nine weeks. (No prerequisite) This course may be taken three times.

AUTO 85B **Automotive Electrical**
(formerly AUTO 93) **and Electronic Systems** **1.0 Unit**

This course provides the student with the knowledge necessary to take a California Alternative Test for Automotive Electrical and Electronic Systems. Information covered will include engine testing and diagnosis, fuel management, ignition systems, computer theory and testing. Successful completion of this course satisfies the California Bureau of Automotive Repair's requirements for engine performance. One and one-half lecture, one and one-half laboratory hours per week for nine weeks. (No prerequisite) This course may be taken three times.

AUTO 85C **Automotive Electrical/**
(formerly AUTO 93) **Electronic Systems Repair**
4.0 Units

This course provides the student with the knowledge necessary to diagnose and repair automotive malfunctions including lighting systems, electrical instruments and accessories, starting and charging systems. Information covered will include electrical fundamentals, test equipment, electrical circuits, electrical malfunctions, wiring diagrams, and electrical diagnosis. Three lecture, three laboratory hours per week. (No prerequisite) This course may be taken four times.

AUTO 85D **Introduction to Computer**
(formerly AUTO 94) **on Board**
Diagnostic II Systems **1.0 Unit**

This course provides the student with the knowledge of On Board Diagnostic II automotive computer systems. Information covered will include On Board Diagnostic (OBD) II laws and regulations, OBD II operating strategies, diagnosis, OBD II monitors, and computer repairs. This course satisfies the Bureau of Automotive Repair's 20 hours OBD II update training. One and one-half lecture, one and one-half laboratory hours per week for nine weeks. (No prerequisite) This course may be taken three times.

AUTO 88.0 **Compressed Natural Gas Systems**
(formerly AUTO 57) **4.0 Units**

This course covers the techniques used by the automotive and light truck industries to safely diagnose, repair and install compressed natural gas fuel systems. Instruction will cover engine design and operation, CNG dedicated, bi-fuel and dual-fueled type fuel systems, high pressure steel lines and fittings installation, gas cylinder visual inspection, engine tune-up and electronics. Three lecture, three laboratory hours per week. (Prerequisite: AUTO 79) This course may be taken four times.

AUTO 89.0 **Electric Vehicle Design**
(formerly AUTO 90) **and Production** **2.0 Units**

This course explores the use of electric power for vehicle transportation. Conversion vehicles and factory designs will be studied. This class introduces the advantages and disadvantages of electric vehicles, design consideration, specialized driving techniques and electric vehicle safety. Course includes the gasoline to electric conversion process. One and one-half lecture, one and one-half laboratory hours per week. (No prerequisite) This course may be taken three times.

AUTO 89A **Electric Vehicle Design and**
(formerly AUTO 76) **Maintenance** **4.0 Units**
This course explores the history and use of electric power for vehicle transportation. Conversion vehicles and factory designs will be studied. This class introduces the advantages and disadvantages of electric vehicles, design consideration, maintenance, specialized driving techniques and electric vehicle safety. Course includes the gasoline to electric conversion process. Three lecture hours, three laboratory hours per week. (No prerequisite) This course may be taken three times.

AUTO 89B **Electric Vehicle Design**
(formerly AUTO 77) **and Construction** **4.0 Units**
This course explores the design and construction of electric vehicles for transportation. The gas to electric conversion process will be studied. This class addresses the advantages and disadvantages of electric and hybrid vehicles, specialized driving techniques and electric vehicle safety. Course includes the construction of a mini electric vehicle. Three lecture hours, three laboratory hours per week. (No prerequisite) This course may be taken three times.

AUTO 91A **Auto Body Repair I** **4.0 Units**
(formerly AUTO 64)
Basic auto body repair and refinishing techniques to prepare students with entry level skills used by the automotive industry. Three lecture hours, three laboratory hours per week. (No prerequisite) This course may be taken four times.

AUTO 91B **Auto Body Repair II** **5.0 Units**
(formerly AUTO 85)
This course is designed for the student who has received instruction in basic auto body repair. Topics covered will include structural repair, automotive refinishing, and damage analysis. The course will focus on developing auto body skills in a hands-on environment with emphasis on improving speed and workmanship. Three lecture, six laboratory hours per week. (Prerequisite: AUTO 91A) This course may be taken three times.

AUTO 91L **Automotive Auto Body**
(formerly AUTO 64L) **Laboratory** **1.0 Unit**
A laboratory class to develop skills in electrical, auto body and refinishing procedures. Three laboratory hours per week. (No prerequisite) This course may be taken four times.

AUTO 92.0 **Auto Body Damage Estimating I**
(formerly AUTO 86) **1.0 Unit**
This class covers the basic of auto body damage estimating. Topics covered will include, but not limited to, sheet metal damage, primary and secondary frame and/or unibody damage, painting and blending, repair vs. replacement of components, and two or four wheel alignment needs. One and one-half lecture, two laboratory hours per week for nine weeks. (No prerequisite) This course may be taken three times.

AUTO 93.0 **Automotive Glass Installation I**
(formerly AUTO 84) **3.0 Units**
Basic auto glass installation techniques, including application of specialized tools/products and understanding of pricing/ordering guides for glass and related products. Students will be provided with entry level skills used by the automotive glass industry. Two lecture, three laboratory hours per week. (No prerequisite)

AUTO 94A **Automotive Window Tinting I**
(formerly AUTO 71) **4.0 Units**
Basic window tinting and installation techniques to prepare students with entry level skills used by the automotive industry. Three lecture, three laboratory hours per week. (No prerequisite)

AUTO 94B **Automotive Window Tinting II**
(formerly AUTO 72) **4.0 Units**
Advanced window tinting and installation techniques used by the automotive industry. Three lecture, three laboratory hours per week. (Prerequisite: AUTO 94A Automotive Window Tinting I)

AUTO 95A **Automotive Laboratory A**
1.0-2.0 Units
A laboratory class to develop skills in engine repair, tune up, emissions, electrical, suspension, brakes, and general maintenance procedures. Three or Six laboratory hours per week. (No prerequisite) This course may be taken four times.

AUTO 95B **Automotive Laboratory B**
2.0 Units
A laboratory class to develop skills in engine repair, tune up, emissions, electrical, suspension, brakes, and general maintenance procedures. Six laboratory hours per week. (No prerequisite) This course may be taken four times.

AUTO 96.0 **Leadership and Public**
(formerly AUTO70) **Event Planning** **.5-2.0 Units**
This course is designed to enable a student to develop leadership skills in the mechanics of planning, promoting, and evaluating a college public event. Two lecture, six laboratory hours per week for nine weeks. (No prerequisite) This course may be taken four times.

AUTO 97.0 **Automotive Air Conditioning and**
(formerly AUTO 117) **Heating Systems** **4.0 Units**
This course covers diagnosis and repair of the components of air conditioning and heating systems; evaporators, compressors, control valves, condensers, blowers, heater cores, and all lines and hoses. Air conditioning and heating related parts will be disassembled, inspected and determination made of the serviceability of existing parts. The need for replacement parts will be established as the components are reassembled. Recovery and charging of different systems will be covered for both R-12 and R-134 systems. Three lecture, three laboratory hours per week. (No prerequisite) This course may be taken four times.

AUTO 98 **Special Topics**
See Special Topics listing (Variable units).

AUTO 99 **Car Care Clinic** **1.0 Unit**
(formerly AUTO 66)
This course covers preventative maintenance techniques for the modern automobile. Instruction will cover the Scheduling of preventive maintenance procedures, interactions wit auto repair shops, vehicle purchasing techniques, theory and operation of the engine, drive train, suspension, cooling system, brake and lighting system. One and one-half lecture hours, one and one-half laboratory hours per week for nine weeks. (No prerequisite) This course may be taken four times.

AUTO 138 **Cooperative Education**
(formerly AUTO 38)
See Cooperative Education listing (1-8 units). CSU

BASIC SKILLS (Developmental Education at the Humanities Complex)

IMPORTANT NOTE: Basic Skills courses offered in units or modules. The student must spend 36 hours to complete 1.0 unit, 72 hours to complete 2.0 units, and 108 hours to complete 3.0 units. Most instruction is by computer though handwritten assignments are also required. Individual assistance is provided.

BSKL 10A **Beginning Word Knowledge**
(formerly BSKL 110A) **and Reading Skills** **1.0 Unit**
The course is the first in a series of three courses that focus on reading skills. Students develop their vocabulary skills and abilities to recall factual information from non-fiction readings. Students learn how to use contextual clues, word structure clues and memorization techniques. Students also read and respond to a number of short reading selections and one non-fiction book. One-half lecture, one and one-half hours laboratory per week. This course will not apply to the Associate Degree. (No prerequisite)

BSKL 10B **Intermediate Word Knowledge**
(formerly BSKL 110B) **and Reading Skills** **1.0 Unit**
The course is a continuation of BSKL 10A. Students develop their vocabulary and reading skills by learning how to use dictionaries and word structure clues and by learning how to distinguish topics and main ideas from supporting details in paragraphs and short essays. Students also read and respond to a number of reading selections and one non-fiction book. One-half hour lecture, one and one-half hours laboratory per week. This course will not apply to the Associate Degree. (No prerequisite)

BSKL 10C **Advanced Word Knowledge**
(formerly BSKL 110C) **and Reading Skills** **1.0 Unit**
The course is a continuation of BSKL 10A and BSKL 10B. Students develop their vocabulary and reading skills by learning how to use word structure and context clues and by learning how to identify main ideas from supporting details in short essays and longer narratives. Students also read and respond to a number of reading selections and one non-fiction book. One-half hour lecture, one and one-half hours laboratory per week. This course will not apply to the Associate Degree. (No prerequisite)

BSKL 11A **Sentence Writing**
(formerly BSKL 111A) **and Grammar Skills** **1.0 Unit**
The course is the first in a series of three courses that focus on writing and grammar skills. Students develop their grammar skills and abilities to write sentences in a clear and legible manner. Students learn how to recognize subjects and verbs and use other grammatical principles along with being introduced to the process of revising written sentences. One-half hour lecture, one and one-half hours laboratory per week. This course will not apply to the Associate Degree. (No prerequisite)

BSKL 11B **Paragraph Writing**
(formerly BSKL 111B) **and Grammar Skills** **1.0 Unit**
The course is the second in a series of three courses that focus on writing and grammar skills. Students develop their grammar skills and abilities to write paragraphs in a clear and organized manner. Students learn how to revise sentences for clarity and grammatical correctness and learn process of revising paragraph length work. One-half hour lecture, one and one-half hours laboratory per week. This course will not apply to the Associate Degree. (No prerequisite)

BSKL 11C **Short Composition Writing**
(formerly BSKL 111C) **and Grammar Skills** **1.0 Unit**
The course is the third in a series of three courses that focus on writing and grammar skills. Students develop their grammar skills and abilities to write paragraphs and essays in a well-organized and clearly written manner. Students learn how to write topic sentences and organize essay length assignments. One-half hour lecture, one and one-half hours laboratory per week. This course will not apply to the Associate Degree. (No prerequisite)

BSKL 12A **Math: Operations with**
(formerly BSKL 112A) **Whole Numbers** **1.0 Unit**
This course teaches students to understand addition, subtraction, multiplication and division of whole numbers. Students will be required to memorize basic single-digit number facts. This course will not apply to the Associate Degree. Four and one-half hours individualized instruction for eight weeks. (No prerequisite) This course may be taken four times.

BSKL 12B **Math: Operations with**
(formerly BSKL 112B) **Rational Numbers** **1.0 Unit**
This course teaches students to understand factorization of whole numbers and addition, subtraction, multiplication, and division of fractions. This course will not apply to the Associate Degree. Four and one-half hours individualized instruction for eight weeks. (Prerequisite: BSKL 12A or equivalent) This course may be taken four times.

BSKL 12C **Math: Operations with Decimals**
(formerly BSKL 112C) **1.0 Unit**
This course teaches students to understand factorization of whole numbers and addition, subtraction, multiplication and division of decimals. This course will not apply to the Associate Degree. Four and one-half hours individualized instruction for eight weeks. (Prerequisite: BSKL 12B or equivalent) This course may be taken four times.

BSKL 12D **Operations with Fractions,**
(formerly BSKL 112D) **Decimals and Percents** **1.0 Unit**
This course will review adding and subtracting of fractions and decimals. It will then introduce multiplying and dividing fractions and decimals, along with changing fractions and decimals to percents and visa versa. This course also introduces translations of verbal problems into mathematical statements. This course will not apply to the Associate Degree. (No prerequisite) This course may be taken four times.

BIOLOGY

BIOL 51 **Marine Biology in the Laboratory**
(formerly BIOLOGY 51) **and Field** **2.0 Units**
This course is an overview of organisms found in the ocean and their ecology. Topics include microscopic forms such as plankton, bacteria, and ocean viruses, as well as macroscopic forms such as seaweeds, marine vertebrates and invertebrates. Shore birds, coastal dune species, and estuarine species will also be discussed. There is an emphasis on species interactions and man's impact on the marine environment. This is a hands-on style course where the student learns through laboratory activities, internet site visits, and field trips to many Southern California locations, including tide pools, aquariums, marine science institutes, and the Channel Islands. Six laboratory hours per week. (No prerequisite. Grade Option)

BIOL 52 **Forensic Entomology** **3.0 Units**
(formerly BIOLOGY 52)
Students will learn some of the various aspects of forensic entomology. Students will learn basic insect morphology and how it applies to the forensic field. This course will also cover the basic forensic collection techniques, laboratory procedures, analysis of the data, and how to write a written case report. See cross listing for AJ 52. Three lecture hours per week. (No prerequisite. Grade Option)

BIOL 54 **Forensic Pathology** **3.0 Units**
(formerly BIOLOGY 53)
This course examines the medico-legal investigation of death from accidental causes, suicides, homicides, blunt/sharp force injuries, gunshot wounds, asphyxia and drowning. The course will cover the identification of individuals through dental remains and records, as well as sex, age and race determinations. See cross listing for AJ 54. Three lecture hours per week. (No prerequisite)

BIOL 70 **Introduction to Biotechnology**
(formerly BIOLOGY 70) **5.0 Units**
This course is designed to introduce students to concepts of modern molecular biology. The concepts will be applied as students learn general manipulation of phage, plant, and bacterial DNA. Students will learn theory and techniques of PCR, gene cloning, DNA fingerprinting, restriction analysis, immunoblot analysis and library construction/screening. Three lecture, six laboratory hours per week. (No prerequisite)

BIOL 71 **Introduction to Laboratory**
(formerly BIOLOGY 71) **Technique** **4.0 Units**
An introduction to laboratory methods for students interested in a career in a laboratory setting. Emphasis will be on basic laboratory methods, the principles that underlie those methods, and the equipment that makes laboratory work possible. Topics will include laboratory safety, quality control, regulatory agencies, and will address problem solving in a laboratory environment. Three lecture, three laboratory hours per week. (No prerequisite)

BIOL 72 **Biomolecular Science** **3.0 Units**
(formerly BIOLOGY 72)
This course is a theoretical approach to laboratory techniques common to modern biotechnical/clinical laboratories. Principles of molecular biology, genetics, metabolism, and immunology will be studied with emphasis on their application to modern analytical methods. Information and Communication technology will be used to develop formal writing and public speaking skills. See cross listing for CHEM 72. Three lecture hours per week. (No prerequisite. Recommended: BIOL 100 or BIOL 107)

BIOL 98 A/B **International Natural History**
(formerly BIOLOGY 65A)
2.0-4.0 Units
This course offers students the opportunity to learn first hand about plants, animals, ecology, geography, and conservation policies of the destination country. Pre-trip lectures will include slide shows and previews of activities you will experience on the natural history tour. Eighteen lecture hours plus 54 hours laboratory for each unit. (No prerequisite. Grade Option.) This course may be taken four times.

BIOL 100 **General Biology** **4.0 Units**
(formerly BIOLOGY 10)
An introductory course in biological principles. Emphasis is on the scientific method, analysis of scientific data, metric system, current biological problems, cellular biology, genetics and heredity, classification and systematics, evolution, ecology, behavior and environmental issues. In addition, the laboratory will include a survey of the morphology characteristics of various organisms on this planet. Three lecture, three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite)

BIOL 104 **General Botany** **4.0 Units**
(formerly BIOLOGY 4)
This botany course is for non-biology majors. Topics include plant anatomy, plant physiology, plant cell structure, photosynthesis, cell respiration, ecology, genetics, systematics, and plant evolution. The course also includes brief introductions to reproduction of flowering plants, mosses, ferns, and conifers; and sections on field botany and plant identification. Emphasis will be placed on use of the scientific method, critical thinking, and problem solving skills. Up to two field trips may be required. Three lecture, three laboratory hours per week. CSU, UC. Offered Spring. (No prerequisite)

BIOL 107 **Introduction to Human Biology**
(formerly BIOLOGY 11) **4.0 Units**
An introductory course in biological principles with a human perspective. Emphasis on cellular structure and function, organ systems, the concept of homeostasis, adaptation, cellular and population genetics, and the interaction of the human species with the ecosystems. Three lecture, three laboratory hours per week. CSU. Offered Fall, Spring, Summer (No prerequisite)

BIOL 109 **Field Biology** **4.0 Units**
(formerly BIOLOGY 9)
This is an introductory course in biological principles. Emphasis is on scientific method, interpretation of data, chemistry of life, cell structure and function, current environmental biological problems, populations, ecophysiology, communities, ecosystems, evolution, and systematics. Three lecture, three laboratory hours per week. CSU (No prerequisite)

BIOL 113 **Biology of Sexually**
(formerly BIOLOGY 13) **Transmitted Diseases** **2.0 Units**
This course will provide an understanding of the history and pathogenesis of the most prominent sexually transmitted diseases. Emphasis will be placed on the biological agent, epidemiology, diagnosis and treatment of the disease. Vaccine development and current treatments will also be examined. Two lecture hours per week. CSU (No prerequisite)

BIOL 114 **Introduction to Ecology 3.0 Units**
(formerly BIOLOGY 14)
The first part of this course covers ecology basics such as demography and population growth, species interactions and food webs, introduction to photosynthesis and metabolism, and nutrient cycling. The remainder of the course emphasizes environmental problems and how they relate to ecological principles. Topics include global biodiversity and endangered species, water and air pollution, alternate energy sources, alternative agriculture and pesticides, and other topics of local interest. Although this course has no laboratory, some outdoor activities may be required. Three lecture hours per week. CSU, UC. (No prerequisite)

BIOL 118 **Principles of Heredity 3.0 Units**
(formerly BIOLOGY 8)
A survey of Mendelian inheritance, quantitative traits, and population genetics. Also includes sections on DNA technology, immune genetics and genetics of cancer. This course places special emphasis on human inheritance and family pedigree analysis, and will stress development of critical thinking and problem solving skills. Three lecture hours per week. CSU, UC. (No prerequisite)

BIOL 120 **Identification and Study of**
(formerly BIOLOGY 20) **Wildflowers** **3.0 Units**
This course employs an evolutionary approach to give students a working knowledge of plant classification, as well as an appreciation for the diversity of the flora of southern California. Students will learn how to use keys to identify local plant species, learn characteristics of the most common plant families, and will be able to describe, identify, and understand some of the dynamics of local plant communities. Vigorous field activities are required. Four lecture, six lab/field trip hours per week for 9-week course; two lecture, three lab/field trip hours per week for 18-week course. CSU. (No prerequisite. Grade Option)

BIOL 121 **Plants and Human Society**
(formerly BIOLOGY 121) **3.0 Units**
A survey of plant utilization by human society, including food plants, utilitarian plants, drugs and poisons, origins and ecology of agriculture, and historical plant-related events. Students will gain an understanding of humanity's reliance on plants and a familiarity with various plant products used by human beings. Two lecture, three laboratory hours per week. CSU, UC. (No prerequisite)

BIOL 126 **Natural History of the**
(formerly BIOLOGY 16) **Mojave Desert** **3.0 Units**
This course acquaints students with the unique plants of the Mojave Desert and their adaptations for survival. Emphasis is on identification, life history, water economy, and thermoregulatory mechanisms. Mojave Desert plant communities, climate, geology, geography, and history will also be discussed. Local conservation issues will also be surveyed, with special consideration of rare and endemic species. Two lecture, three laboratory hours per week. CSU. Offered Spring. (No prerequisite. Grade Option)

BIOL 127 **Identification and Study of**
Birds
(formerly BIOLOGY 17) **of the Mojave Desert and**
Adjacent Mountains
3.0 Units
Field identification of 75 bird species of the local area. Includes song and habitat identification, study of birds' feathers, colors, and their uses. Adaptations of bills, feet, wings, and bones. Course also covers the food of birds, their ecological relationships, eggs and nests, senses and behavior, flight and song. Course touches briefly on bird migration. Two lecture, three laboratory hours per week. CSU. (No prerequisite. Grade Option)

BIOL 128 **Identification and Study of**
(formerly BIOLOGY 18)
Amphibians and Reptiles of the
Mojave and Adjacent
Mountains
3.0 Units
This course is a survey of the amphibians and reptiles of the Mojave Desert and adjacent mountains. This course reviews amphibian and reptile characteristics, origin and evolution, and classification. This course will also discuss habitats, behaviors and adaptations of the local amphibians and reptiles. Two lecture, three laboratory hours per week. CSU. (No prerequisite. Grade Option) This course may be taken four times.

BIOL 129 **Identification and Study of**
(formerly BIOLOGY 19) **Mammals of the Mojave Desert and Adjacent Mountains**
3.0 Units
This course is a survey of mammals of the Mojave Desert and adjacent mountains. In this course, students will survey mammal characteristics, origin and evolution, and classification, while also discussing their local habitats, behaviors and adaptations. Two lecture, three laboratory hours per week. CSU. (No prerequisite. Grade Option) This course may be taken four times.

BIOL 138 **Cooperative Education**
(formerly BIOLOGY 38)
See Cooperative Education listing (1-8 units). CSU

BIOL 149 **Independent Study**
(formerly BIOLOGY 29)
See Independent Study listing (1-3 units). CSU

BIOL 201 **Biology of Cells**
(formerly BIOLOGY 1) **(CAN BIOL 2)** **5.0 Units**
This course will provide students with a comprehensive introduction to the biological principles at the cellular level. Emphasis will be placed on the scientific method, molecular biology, biochemistry, structure and function of cells, cellular reproduction and molecular genetics. This course is designed for preprofessional and biology majors but is open to all students. Majors should also take BIOL 202 and 203. Three lecture, six laboratory hours per week. CSU, UC. Offered Fall. (Prerequisite: CHEM 201 or CHEM 100 as prerequisite or corequisite)

BIOL 202 **Biology of Organisms**
(formerly BIOLOGY 2) **(CAN BIOL 4)** **5.0 Units**
This course will provide students with a comprehensive introduction to the extraordinary diversity of biological organisms on the earth. Emphasis will be placed on origins of life, the evolutionary relationships among groups of organisms, and the basic anatomy and physiology of the major groups of living organisms. This course is designed for preprofessional and biology majors but is open to all students. Majors should also take BIOL 201 and 203. Three lecture, six laboratory hours per week. CSU, UC. Offered Spring alternating with BIOL 203. (No prerequisite)

BIOL 203 **Population and Environmental**
(formerly BIOLOGY 3) **Biology (Biology 201+202+203 =**
CAN BIOL SEQ A) **4.0 Units**
An introduction to the structure and organization of populations, communities, and ecosystems. Emphasis will be on demography, population growth, life history traits, extinction, species interactions, ecosystem dynamics, and evolution, as well as selected current environmental issues. Students will participate in field laboratories, use simple statistics to analyze data, and compose scientific papers. This course is designed for biological science majors but is open to all students. Three lecture, three laboratory hours per week. CSU, UC. Offered Spring alternating with BIOL 202. (Prerequisite: CHEM 20l or CHEM 100 as prerequisite or corequisite)

BIOL 211 **Human Anatomy**
(formerly ANATOMY 1) **5.0 Units**
An introduction to the gross and microscopic anatomy of the human body. Lab includes dissection of cat, sheep eye, kidney, heart, and larynx. Lab also includes demonstrations on a human cadaver and assorted anatomical models. Lecture covers cells, tissues, and the major human systems such as the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, respiratory, urinary, and reproductive. Three lecture, six laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (Prerequisite: BIOL 109, 100, 201 or 107 with a grade of "C" or better.)

BIOL 212 **Human Anatomy**
(formerly ANATOMY 2) **4.0 Units**
Study of the gross and microscopic anatomy of the human body. Includes dissection of cat and of sheep eye, kidney, heart, and larynx. Demonstrations on the anatomical models of the human eye, ear, and larynx. Lecture covers cells, tissues, and the human systems. Three lecture, three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite)

BIOL 215A **Human Gross Anatomy,**
(formerly ANATOMY 5A) **Thorax and Abdomen** **1.5 Units**
An advanced anatomy class that utilizes a regional approach to the study of the thorax, abdomen, and pelvis. Lecture will include medical/clinical applications and case studies on these regions. Laboratory includes hands on group dissection of these regions on a whole cadaver, as well as work on a high level anatomy software program. Three lecture, four and one-half laboratory hours per week for six weeks. CSU. Offered Fall, Spring, Summer. (Prerequisite: BIOL 211 completed with a "C" grade or better.)

BIOL 215B **Human Gross Anatomy, Back**
(formerly ANATOMY 5B) **and Extremities** **1.5 Units**
An advanced anatomy class that utilizes a regional approach to the study of the back, vertebral column, upper extremities, and lower extremities. Lecture will include medical/clinical applications and case studies on these regions. Laboratory includes hands on group dissection of these regions on a whole cadaver, as well as work on a high level anatomy software program. Three lecture, four and one-half laboratory hours per week for six weeks. CSU. Offered Fall, Spring, Summer. (Prerequisite: BIOL 211 completed with a "C" grade or better.)

BIOL 215C **Human Gross Anatomy,**
(formerly ANATOMY 5C) **Head and Neck** **1.5 Units**
An advanced anatomy class utilizing a regional approach to the study of the head and neck. Lecture will include medical/clinical applications and case studies on these regions. Laboratory includes hands on group dissection of these regions on a whole cadaver, as well as work on a high level anatomy software program. Three lecture, four and one-half laboratory hours per week for six weeks. CSU. Offered Fall, Spring, Summer. (Prerequisite: BIOL 211 completed with a "C" grade or better.)

BIOL 221 **General Microbiology**
(formerly MICRO 1) **(CAN BIOL 14)** **5.0 Units**
Introduction to bacteria, viruses, and parasitic forms of protozoa, helminths, and fungi. Examination of morphological, physiological, and epidemiological characteristics of these organisms and of the immune response produced by their hosts. Three lecture, six laboratory hours per week. CSU, UC. Offered Fall, Spring, Summer. (Prerequisites: BIOL 100, 109, 107 or 201; CHEM 100 or CHEM 201; all completed with a grade of "C"or better.)

BIOL 231 **Human Physiology**
(formerly PHYSIO 1) **(CAN BIOL 12)** **5.0 Units**
An introduction to general physiology with emphasis on the functioning of the human body. Included in the topics to be covered are biochemical aspects of cell function, integrated control of organ systems and homeostasis. The laboratory will include demonstrations and experiments to support basic physiological concepts. Three lecture, six laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring. (Prerequisite: One college chemistry class equivalent to CHEM 100 or CHEM 20l; and one college biology class equivalent to BIOL 201, 100, 109 or 107; and BIOL 211 or 212, all with a grade of "C"or better.)

BIOL 232 **Human Physiology** **4.0 Units**
(formerly PHYSIO 2)
An introduction to general physiology with emphasis on the functioning of the human body. Included in the topics to be covered are biochemical aspects of cell function, integrated control of organ systems, and homeostasis. The laboratory will include demonstrations and experiments to support basic physiological concepts. Three lecture, three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring. (Prerequisite: One college chemistry class (equivalent to CHEM 100 or CHEM 201); and one college biology class (equivalent to BIOL 201 or BIOL 100); and BIOL 212, all with a grade of "C" or better.)

BIOL 250A **Tropical Field Biology and Natural History** **3.0 Units**
This course lets students experience the tropical environment from a fieldwork and research perspective. Students will learn research techniques hands-on from basic specimen collecting and data gathering in the field to preparing a manuscript for publication in a peer-reviewed scientific journal and will apply these in biodiversity surveys of both terrestrial and aquatic habitats. An emphasis will be placed on amphibians and reptiles and their adaptations to life in the tropical forest, as an example for the high diversity of tropical organisms. One lecture, six laboratory hours per week. CSU (Prerequisite: BIOL 100 or equivalent.)

BUSINESS ADMINISTRATION

BADM 50 **Applied Accounting I** **3.0 Units**
(formerly B AD 51A)
Introduction to the bookkeeping problems of a small business enterprise for both merchandising and service-type organization. Emphasis on the development of skills for both cash and accrual methods of recording, including procedures for completion of an accounting cycle. Attention is given to special journals, subsidiary ledgers, and payroll and control systems. Three lecture hours per week. Offered Fall, Spring. (No prerequisite)

BADM 51 **Applied Accounting II** **3.0 Units**
(formerly B AD 51B)
Continuation of bookkeeping procedures. Special emphasis on development of skills in the following areas: valuation of assets, business taxes, problems of accruals and deferrals, department and branch office records, preparation of statements and budgeting. Three lecture hours per week. Offered Fall, Spring. (No prerequisite)

BADM 52 **Elements of Supervision**
(formerly B AD 52) **3.0 Units**
This course is designed to introduce the student to the management skills needed by the first line supervisor. While employees generally receive promotions to supervision based on their technical skills and knowledge, this course provides new management and people skills to add to those technical skills. Three lecture hours per week. Offered Fall, Spring. (No prerequisite)

BADM 53 **Management for Supervisors**
(formerly B AD 53) **3.0 Units**
Managerial theories as effective tools of leadership; basic aspects of individual behavior necessary to interact effectively with people; importance of effective communication in an interpersonal relationship; basic skills of effective counseling on the job; positive discipline as an essential element in effective task accomplishment; values of performance standards for ensuring proper procedures, training, and evaluation of subordinates. Three lecture hours per week. Offered Spring. (No prerequisite)

BADM 55 **Microcomputerized Office**
(formerly B AD 55) **Management** **2.0 Units**
A course designed to upgrade today's manual office skills to the computerized office of the future. One lecture, three laboratory hours per week. (No prerequisite)

BADM 60 **Introduction to International**
(formerly B AD 60) **Business** **3.0 Units**
A comprehensive overview of international business designed to provide a global perspective on international trade, including foreign investments, impact of financial markets, international marketing, and the operation of multinational corporations. Three lecture hours per week. (No prerequisite)

BADM 70 **Individual Income and Payroll**
(formerly B AD 70) **Taxes 1A** **3.0 Units**
An introduction to the practical and theoretical concepts of both the federal and state income tax systems, limited to the individual filing. Three lecture hours per week. (No prerequisite)

BADM 71 **Individual Income and Payroll**
(formerly B AD 71) **Taxes 1B** **3.0 Units**
An advanced study of the practical and theoretical concepts of both the federal and state income tax systems. Three lecture hours per week. (No prerequisite)

BADM 72 **Internal Revenue Service**
(formerly B AD 72) **Procedures and Taxpayer Bill of Rights** **3.0 Units**
Presentation of the Internal Revenue Service and Franchise Tax Board procedures. Explanation of the proper response and options to the Federal and State tax authority. Three lecture hours per week. (No prerequisite)

BADM 100 **Introduction to Business**
(formerly B AD 20) **Organizations** **3.0 Units**
Business is dynamic and constantly changing. This course is designed to introduce the student to contemporary issues and principles of business. The business functions of management, marketing, accounting and finance presented along with global dimensions of business, the various forms of business ownership, teamwork, securities, ethics and social responsibility, and economic challenges facing the United States. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer (No prerequisite)

BADM 101 **Elementary Accounting**
(formerly B AD 1A) **(CAN BUS 2)** **4.0 Units**
Introduction to accounting theory and practice for a sole proprietorship. Concepts and principles are developed in a logical progression from basic transactions of a service enterprise to the more complex transactions of a merchandise enterprise. Accounting theory is reinforced by the completion of a practice set which includes the recording, analyzing, and summarizing of business transactions. Four lecture, one laboratory hour per week. CSU, UC (UC credit limitation). Offered Fall, Spring. (No prerequisite)

BADM 102 **Elementary Accounting**
(formerly B AD 1B) **(CAN BUS 4)** **4.0 Units**
Application of the basic principles of partnership and corporate organizations, and study of the theory and practices unique to these more complex business forms. Manufacturing cost, branch and departmental accounting, budgeting, special reports for management, and statement analysis. Four lecture, one laboratory hour per week. CSU, UC (UC credit limitation). Offered Fall, Spring. (No prerequisite)

BADM 103 **Financial Accounting (CAN BUS 2)**
(formerly B AD 2A) **3.0 Units**
This course is a study of the theory and practice of financial accounting for a sole proprietorship. Concepts and principles are introduced in a logical progression from the introduction of the accounting equation to preparation of financial statements. The course focuses on both service enterprises and merchandise enterprises. Business transactions are recorded, analyzed, and summarized within the accounting system of record keeping. Three lecture hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite)

BADM 104 **Principles of Accounting**
(formerly B AD 2B) **(CAN BUS 4)** **3.0 Units**
Introduction to the theory and practice of accounting for partnership interests from formation to liquidation and division of income and losses. The study of corporations combines the theory and practice of financial reporting for corporations. Special emphasis is placed on managerial accounting principles of the job order cost system, process cost systems, and budgeting and standard cost systems. Three lecture hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring. (No prerequisite)

BADM 105 **Managerial Accounting** **3.0 Units**
(formerly B AD 3)
Emphasizes the use of accounting information to implement management's decision making and organizational control responsibilities. Presents an overview of product costing, responsibility accounting, break-even analysis, and other financial tools used in the decision-making process for profit, planning, and control. Present value analysis in ranking investment projects and measuring the desirability of investment. Three lecture hours per week. CSU. Offered Fall. (No prerequisite)

BADM 106 **Accounting on Microcomputers**
(formerly B AD 4A) **2.0 Units**
A course in basic accounting procedures using IBM - PC microcomputers to complete all accounting procedures. General ledger, accounts payable, accounts receivable, depreciation, and payroll will be covered. Three lecture, three laboratory hours for nine weeks. CSU. Offered Fall, Spring. (No prerequisite)

BADM 107 **Accounting on Microcomputers**
(formerly B AD 4B) **2.0 Units**
This course is intended to be a continuation and expansion on accounting procedures covered in B AD 4A. Topics covered include billing, purchasing, product assembly, inventory control, payroll, taxation, and reporting and graphics presentations. Students successfully completing both B AD 4A and 4B should be fully qualified to take full control of any computerized accounting program used by a small business. One and one half hour lecture, one and one half hour laboratory per week. CSU. (No prerequisite)

BADM 108 **Managerial Finance** **3.0 Units**
(formerly B AD 5)
To equip the student with the knowledge of the essentials of finance and resources. To measure investment in relation to time, risk and profit to obtain the maximum return. Three lecture hours per week. CSU. Offered Spring. (No prerequisite)

BADM 109 **Human Resource Management**
(formerly B AD 6) **3.0 Units**
This introductory course is designed to acquaint the student with the important functions performed by the human resource department in a business organization. These functions include recruiting, staffing, training and development, compensation, strategic human resource planning, personnel evaluation, and management-labor relations. Other topics include global issues, the legal environment, EEO, sexual harassment, and design of work. This course is for the managerial candidate, for those who have not had formal management training, or for the individual who is currently or interested in working in a human resource department. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

BADM 110 **Principles of Management**
(formerly B AD 7) **3.0 Units**
This is an introductory course to the management functions of planning, organizing, leading and controlling. The concepts of corporate culture, the impact of the external environment, business ethics and social responsibility, motivation, communication and teamwork, globalization, and quality control are a few of the topics covered. This course is designed for the managerial candidate or for the individual who has worked but not had formal training in business management. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

BADM 111 **Introduction to Public**
(formerly B AD 8) **Administration** **3.0 Units**
An introduction to the study of public administration including a survey of the major functions, i.e., policy making, personnel administration, budgeting, administrative responsibility. Three lecture hours per week. CSU. Offered Fall. (No prerequisite)

BADM 112 **Introduction to Marketing**
(formerly B AD 9) **3.0 Units**
This course is an introduction to contemporary marketing principles. Included in this course will be relationship marketing, the global dimension of marketing, e-commerce, marketing plan development, research, market segmentation, produce strategy, distribution, promotional, pricing strategies. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

BADM 113 **Retailing** **3.0 Units**
(formerly B AD 11)
An introductory course in retail management. Field trips may be included. Three lecture hours per week. CSU. Offered Spring. (No prerequisite)

BADM 114 **Sales** **3.0 Units**
(formerly B AD 12)
An examination of the salesperson's role in modern marketing. Emphasis is placed on buyer behavior, the sales communication process, prospecting for customers, planning the sales call, developing and giving the sales presentation, handling objections, and closing the sale. Presentations give the student opportunities to apply the selling concept. Three lecture hours per week. CSU. (No prerequisite)

BADM 116 **Human Relations in Business**
(formerly B AD 16) **3.0 Units**
Human relation skills mean interactions among people and represent the single biggest reason for career success and failure. This course provides a clear understanding of human relation concepts, the application of human relation concepts for critical thinking in the business world, and the ability to increase the student's development of human relation skills. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

BADM 117 **Legal Environment of Business**
(formerly B AD 17) **3.0 Units**
The study of the American legal system and principles of law as applies to business. Course content includes the legal environment of business, nature and source of law, court systems, dispute resolution, common and statutory law, Constitutional law, administrative agencies, common law torts and business torts, contract law, and the Uniform Commercial Code as it relates to the sale of goods. Additionally, the legal forms of business will be addressed as to the formation, operation, and termination of proprietorships, partnerships, and corporations. Three lecture hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite)

BADM 118 **Business Law** **3.0 Units**
(formerly B AD 18)
The study of business law, both case and statutory, as it applies to the Uniform Commercial Code dealing with negotiable instruments; secured transactions and bankruptcy; employment law and agency; property, real and personal, to include bailments; and governmental agencies' regulation of business to include antitrust and fair business practices. Three lecture hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring. (No prerequisite)

BADM 122 **Small Business Management**
(formerly B AD 22) **3.0 Units**
An introduction to contemporary management techniques used by small businesses in the free enterprise system. The course focuses on entrepreneurial opportunities, developing a business plan for a planned or existing small business, small business marketing, operations, and financial management. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

BADM 138 **Cooperative Education**
(formerly B AD 38)
See Cooperative Education listing (1-8 units). CSU

BADM 142 **Business Mathematics** **3.0 Units**
(formerly B AD 42)
An introduction to a variety of business computations and applications such as percents, payroll, markup/markdown, cash and trade discounts, simple and compound interest, annuities, credit, mortgages, financial statements, inventory, depreciation, and taxes. Three lecture hours per week. CSU. Offered Fall, Spring, Summer. (No prerequisite)

BADM 144 **Business Communications**
(formerly B AD 44) **3.0 Units**
Analysis, evaluation, revision of business letters, memoranda, reports and correspondence. Application of the 3X3 writing process to business correspondence. An introduction to a writer's legal and ethical responsibilities. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

BADM 148 **Special Topics**
(formerly B AD 48)
See Special Topics listing (Variable units). CSU

BADM 149 **Independent Study**
(formerly B AD 49)
See Independent Study listing (1-3 units). CSU

BUSINESS EDUCATION TECHNOLOGIES

NOTE: Business Education Technologies courses offered in modules require 36 hours to complete 1.0 unit, 72 hours to complete 2.0 units, and 108 hours to complete 3.0 units.

BET 56 **Operating System:**
(formerly BET 46) **Beginning DOS A/B/C** **3.0 Units**
Introduction to the MS DOS operating system functions and commands, disk and file management, and utilities used in various applications of routine computer functions. Two hours lecture, three hours laboratory per week. (No prerequisite) This course may be taken two times.

BET 56A **Operating System:**
(formerly BET 46A) **Beginning DOS A** **1.0 Unit**
This first unit is an introduction to PC/MS DOS operating systems' functions and commands including disk and file management for routine computer functions. This course assumes no prior computer experience. (No prerequisite) This course may be taken three times.

BET 56B **Operating System:**
(formerly BET 46B) **Beginning DOS B** **1.0 Unit**
This second unit is an introduction to PC/MS DOS operating commands, including more disk and file management for routine computer functions. (Prerequisite: BET 56A) This course may be taken three times.

BET 56C **Operating System:**
(formerly BET 46C) **Beginning DOS C** **1.0 Unit**
This third unit is an introduction to the PC/MS DOS operating systems' functions and commands, more disk and file management using subdirectories, and DOS SHELL for routine computer functions. (Prerequisite: BET 56B) This course may be taken three times.

BET 57 **Operating System:**
(formerly BET 47) **Advanced DOS A/B/C** **3.0 Units**
Learn to work with batch files, custom menus, and autoexec files. The course covers the preparation and use of hard disks, networking, and the use of subdirectories and utilities. Two hours lecture, three hours laboratory per week. (Prerequisite: BET 56)

BET 65 **Speedwriting** **3.0 Units**
A simplified method of shorthand based on systematic abbreviations. This course is intended for the entry-level promotable secretary, the electronic office, and college students desiring note-taking skills. Three lecture hours per week. Offered Fall, Spring. (No prerequisite)

BET 66 **Speedwriting/Shorthand Development and Review** **3.0 Units**
Students increase speed for taking and transcribing notes on the computer using any previously learned system, improve ability to type mailable letters from dictation, and review spelling, punctuation, proofreading, editing, grammar, and letter styles. Dictation begins at 50 words per minute. Three lecture hours per week. (Prerequisite: BET 65 or ability to take dictation at 50 wpm or equivalent) This course may be taken four times.

BET 68 **Proofreading** **1.0 - 3.0 Units**
Students develop proofreading skills necessary to meet high levels of accuracy and review basic business English skills: punctuation, word usage, sentence and paragraph structure. Practice/exercises are done on the microcomputer for Modules B and C. Offered Fall, Spring. (Prerequisite: Successful completion of BET 103A or BET 104A) This course may be taken three times.

BET 74 **Office Machine Calculations** **2.0 Units**
Provides practice on ten-key calculating machine with applications of actual business problems and forms. 72 hours required to complete. (No prerequisite)

BET 76 **Business Etiquette** **1.0 Unit**
Students improve communication skills, punctuation and spelling, interviewing and grooming techniques to enhance employability or job performance, and prepare resumes on microcomputer. (No prerequisite)

BET 77 **Speed and Accuracy Development** **2.0 Units**
This course is individualized to fit the needs of each student and develops keyboarding/typing speed, continuing to higher level courses or obtaining a job, by intensive training and practice. (Prerequisite: BET 101 or ability to type 20 gross words per minute) This course may be taken three times.

BET 80 **Telework and Telecommute: A Pattern of Work From Home** **2.0 Units**
This course will prepare and train both business professionals and students for telework and telecommuting. It is designed for the vocational student and employee who desires a flexible or alternative work-from-home schedule. It will enable students to learn about the equipment, the concepts, and the skills required to set up and work with home-based modular work stations. The course introduces students to the description of telecommuting and telework, and the advantages and disadvantages of alternative work schedules; equipment and technology, hardware and software, e-mail and Internet; a new concept of office, setup and use of home-based work stations; self-employment, self-organizations, job analysis, calendaring, planning and objectives; telemanagement, evaluation by results, contracts and agreements, tax credit legislation, IRS home office rulings , zoning, and safety. Four lecture hours per week for nine weeks. (Prerequisite: BET 101 or knowledge of word processing is recommended)

BET 101 **Beginning Keyboarding/Typing**
(formerly BET 1) **1.0 Unit**
This course is individualized to fit the needs of each student and develop basic alpha/numeric keyboarding skills and basic mouse operation on the computer. Emphasis is on achieving a straight-copy speed of 20 gross words a minute with a predetermined error limit. CSU. (No prerequisite) This course may be taken three times.

BET 103 **Beginning Word Processing/**
(formerly BET 3) **Typing: WordPerfect for Windows A/B/C** **3.0 Units**
Introduces students to WordPerfect for Windows. Students will develop a working knowledge of this current software package to prepare documents. CSU. (Prerequisite: **BET** 101 or ability to type 20 gross words per minute and type basic business documents.) This course may be taken two times.

BET 103A **Beginning Word Processing/**
(formerly BET 3A) **Typing: WordPerfect for Windows A** **1.0 Unit**
Introduces students to word processing using WordPerfect for Windows. Students will develop a working knowledge of this current software package to prepare documents. Course will include text-editing, formatting, storage, retrieval, saving, and printing documents. CSU. (Prerequisite: BET 101 or ability to type 20 gross words per minute) This course may be taken four times.

BET 103B **Beginning Word Processing/**
(formerly BET 3B) **Typing: WordPerfect for Windows B** **1.0 Unit**
The second unit is individualized to meet the needs of each student and provides extensive hands-on practice. Students will learn to align text, move and copy text, use various fonts, change the appearance of text, search and replace text, use headers and footers, page numbering, footnotes and endnotes. CSU. (Prerequisite: BET 103A) This course may be taken four times.

BET 103C **Beginning Word Processing/**
(formerly BET 3C) **Typing: WordPerfect for Windows C** **1.0 Unit**

The third unit is designed to meet the individualized needs of each student. Topics are merging, creating envelopes and labels, sorting, managing files, and working with window arrangements. CSU. (Prerequisite: BET 103B) This course may be taken four times.

BET 103D **Beginning Word Processing/**
(formerly BET 3D) **Typing: WordPerfect for Windows D** **1.0 Unit**

The fourth unit is designed to meet the individual needs of each student. Topics covered include creating macros, defining and using styles, outlines and graphics. CSU. (Prerequisite: BET 103C) This course may be taken four times.

BET 104 **Beginning Word Processing/**
(formerly BET 4) **Typing: Word for Windows A/B/C** **3.0 Units**

Introduces students to Word for Windows. Students will develop a working knowledge of this current software package to prepare documents. CSU. (Prerequisite: BET 101 or ability to type 20 gross words per minute and type basic business documents.) This course may be taken two times.

BET 104A **Beginning Word Processing/**
(formerly BET 4A) **Typing: Word for Windows A** **1.0 Unit**

The first unit is individualized to fit the needs of each student and introduces the basic skills necessary to create business documents. Emphasis is on creating, editing, formatting, and printing documents. Designed for students with limited experience on the computer. CSU. (Prerequisite: V 101 or ability to type 20 gross words per minute) This course may be taken three times.

BET 104B **Beginning Word Processing/**
(formerly BET 4B) **Typing: Word for Windows B** **1.0 Unit**

The second unit is an individualized course designed to meet the needs of each student. This course provides extensive hands-on practice provided at individual workstations. Students will learn to align text, move and copy text, use fonts, change the appearance of text, search and replace text, use headers, footers, page numbering, footnotes, and endnotes. CSU. (Prerequisite: BET 104A) This course may be taken three times.

BET 104C **Beginning Word Processing/**
(formerly BET 4C) **Typing: Word for Windows C** **1.0 Unit**

This third unit is designed to meet the needs of each student. Topics are merging, creating envelopes and labels, sorting text, managing files, and working with window arrangement. CSU. (Prerequisite: BET 104B) This course may be taken three times.

BET 104D **Beginning Word Processing/**
(formerly BET 4D) **Typing: Word for Windows D** **1.0 Unit**

This fourth unit is designed to meet the individual needs of each student. Topics covered include creating macros, defining and using styles in outlines, adding Microsoft WordArt to documents, and creating tables and columns. CSU. (Prerequisite: BET 104C) This course may be taken three times.

BET 107 **Internet Level I/II/III** **3.0 Units**

This course provides the student with comprehensive knowledge of the Internet from basic terminology through creating a basic Web Page using HTML (Hypertext Markup Language). Topics include: browsers, e-mail, search engines, FTP, newsgroups, Internet security, web page design, and e-commerce. CSU (No prerequisite) This course may be taken three times.

BET 107A **Internet Level I** **1.0 Unit**
(formerly BET 7)

Internet Level I is an introductory course. This is a self-paced, individualized course. Basic Internet topics and commands are covered. CSU. (No prerequisite) This course may be taken three times.

BET 107B **Internet Level II** **1.0 Unit**
(formerly BET 8)

This second course provides a more-in-depth knowledge of the Internet including transferring files with File Transfer Protocol (FTP) and finding information using search engines. CSU. (Prerequisite: BET 107A) This course may be taken three times.

BET 107C **Internet Level III** **1.0 Unit**
(formerly BET 9)

This third course provides a more comprehensive knowledge of the Internet including the use of mailing lists and Web pages. CSU. (Prerequisite: BET 107B) This course may be taken three times.

BET 111A **Spreadsheet: Lotus 1-2-3 for**
(formerly BET 11A) **Windows A** **1.0 Unit**

Students will learn how to use Lotus 1-2-3 spreadsheet concepts. Covered in this course are entering and editing cell data, saving and retrieving worksheets, arithmetic formulas, commonly used worksheet and range commands, and printing worksheets. CSU. (No prerequisite) This course may be taken three times.

BET 111B **Spreadsheet: Lotus 1-2-3 for**
(formerly BET 11B) **Windows B** **1.0 Unit**

Additional Lotus 1-2-3 features of worksheet planning and operations. Students will learn copying and moving commands, macros, additional formulas, and customizing graphs. CSU. (Prerequisite: BET 111A) This course may be taken three times.

BET 111C **Spreadsheet: Lotus 1-2-3 for**
(formerly BET 11C) **Windows C** **1.0 Unit**

Advanced Lotus 1-2-3 features including importing and exporting files, writing macros, graphing and database management will be covered. CSU. (Prerequisite: BET 111B) This course may be taken three times.

BET 112 **Spreadsheet:**
(formerly BET 12) **Excel for Windows ABC** **3.0 Units**

Spreadsheet operations for creating, editing, formatting and placing graphics in worksheets, commands and functions for customizing, working with the Tool Bar, enhancing charts and graphs, macro usage and development, including concepts used to create charts and exploration of Excel's database. Extensive hands-on practice is provided at individualized workstations. CSU. (No prerequisite) This course may be taken two times.

BET 112A **Spreadsheet: Excel for Windows A**
(formerly BET 12A) **1.0 Unit**
This first unit is a self-paced, individualized introduction to spreadsheet operations for creating, editing, formatting and placing graphics in worksheets. Extensive hands-on practice is provided at individualized workstations. CSU. (No prerequisite) This course may be taken three times.

BET 112B **Spreadsheet: Excel for Windows B**
(formerly BET 12B) **1.0 Unit**
This second unit is a self-paced, individualized introduction to the commands and functions for customizing the worksheet, working with the Tool Bar, and enhancing worksheet charts or graphs. Extensive hands-on practice is provided at individual workstations. CSU. (Prerequisite: BET 112A) This course may be taken three times.

BET 112C **Spreadsheet: Excel for Windows C**
(formerly BET 12C) **1.0 Unit**
This third unit is a self-paced, individualized introduction to macro usage and development, including concepts used to create charts and exploration of Excel's database. Extensive hands-on practice is provided at individual workstations. CSU. (Prerequisite: BET 112B) This course may be taken three times.

BET 114A **Spreadsheet: Ouattro Pro A**
(formerly BET 14A) **1.0 Unit**
An introduction to Quattro Pro, an integrated software package combining an electronic spreadsheet and a graphic display system. Hands-on approach using practical applications is presented. CSU. (No prerequisite) This course may be taken three times.

BET 114B **Spreadsheet: Quattro Pro B**
(formerly BET 14B) **1.0 Unit**
This second unit covers more commands used in Quattro Pro. Features such as copy and move, macros, additional computations and customizing graphs are covered. CSU. (Prerequisite: BET 114A) This course may be taken three times.

BET 114C **Spreadsheet: Quattro Pro C**
(formerly BET 14C) **1.0 Unit**
This third unit covers worksheet planning, importing, exporting, macro facilities, graphing, and database management. CSU. (Prerequisite: BET 114B) This course may be taken three times.

BET 117A **Database: Paradox A** **1.0 Unit**
(formerly BET 17A)
This first unit introduces database concepts and skills. Students will learn to manage and organize database files with hands-on practice at individual workstations. CSU. (No prerequisite) This course may be taken three times.

BET 117B **Database: Paradox B** **1.0 Unit**
(formerly BET 17A)
This second unit in database management will feature storing and organizing business information. Further development of manipulating files, sorting and generating reports will be covered. CSU. (Prerequisite: BET 117A) This course may be taken three times.

BET 117C **Database: Paradox C** **1.0 Unit**
(formerly BET 17C)
This third unit in database management will cover creating, maintaining, and manipulating records of data for business applications. An introduction to queries, scripts, and graphs included. CSU. (Prerequisite: BET 117B) This course may be taken three times.

BET 118 **Database: Access A/B/C** **3.0 Units**
(formerly BET 18)
Familiarity with computers is recommended. Introduces database concepts through advanced skill levels including advanced queries, briefcase replication, macros and use of Visual Basic for applications code. CSU. (No prerequisite) This course may be taken two times.

BET 118A **Database: Access A** **1.0 Unit**
(formerly BET 18A)
Introduces database concepts and skills. Students will learn to manage and organize database files with extensive hands-on practice at individual work stations. CSU. Offered Fall, Spring, Summer (No prerequisite) This course may be taken three times.

BET 118B **Database: Access B** **1.0 Unit**
(formerly BET 18B)
This second unit in database management will feature advanced querying, storing and organizing business information. CSU. Offered Fall, Spring, Summer (Prerequisite: BET 118A) This course may be taken three times.

BET 118C **Database: Access C** **1.0 Unit**
(formerly BET 18C)
This course is designed to teach the student advanced concepts and business skills using Access, including working with advance queries, briefcase replication, macros and the use of Visual Basic for applications code. CSU. Offered Fall, Spring, Summer (Prerequisite: BET 118B) This course may be taken three times.

BET 122 **Intermediate Keyboarding/**
(formerly BET 22) **Typing A/B/C** **3.0 Units**
A continuation of individualized modules to fit the needs of each student as he/she develops more skill in documentation preparation (letters, tables, and reports). Also includes the preparation of correspondence with special features, advanced manuscripts, outlines, resumes, applications, and business forms on the typewriter and/or the microcomputer. Emphasis is on achieving a straight-copy speed of 45 - 60 gross words per minute with a predetermined error limit. Also offered in separate modules. CSU. Offered Fall, Spring, Summer. (Prerequisite: Successful completion of 3 units of Beginning Keyboarding/Typing or Word Processing or the ability to type 40 gross words a minute and prepare simple documents)

BET 122A **Intermediate Word Processing/**
(formerly BET 22A) **Typing Applications A** **1.0 Unit**
The first module is individualized to fit the needs of each student. The students apply their knowledge of word processing in developing more skill in document formatting on the PC. Emphasis is on achieving a typing speed of 45 gross words per minute with a predetermined error limit. CSU. (Prerequisite: Successful completion of BET 101, 102, 103 or BET 102ABC, or BET 103ABC and the ability to type 40 gross words per minute)

BET 122B **Intermediate Word Processing/**
(formerly BET 22B) **Typing - Applications B** **1.0 Unit**
The second module is individualized to fit the needs of each student in developing more skill in document preparation (tables and various business forms) using the computer/typewriter. Emphasis is on achieving a straight-copy speed of 50 gross words per minute with a predetermined error limit. CSU. (Prerequisite: Successful completion of **BET** 122A and the ability to type 45 gross words per minute)

BET 122C **Intermediate Word Processing/**
(formerly BET 22C) **Typing - Applications C** **1.0 Unit**
The third module is designed so students can further apply their knowledge of word processing on business forms and various business documents and correspondence. Emphasis is on achieving a typing speed of 60 gross words per minute with a predetermined error limit. CSU. (Prerequisite: Successful completion of BET 122B and the ability to type 50 gross words per minute)

BET 123L **Machine Transcription -**
(formerly BET 23L) **Legal** **3.0 Units**
Students develop machine transcription skills used in a typical law firm and learn to prepare legal documents and correspondence. CSU. Offered Fall, Spring. (Prerequisite: Successful completion of BET 103C or 104C. Recommended: BADM 117) This course may be taken three times.

BET 123M **Machine Transcription -**
(formerly BET 123M) **Medical** **3.0 Units**
Students develop machine transcription skills for a medical transcriber and learn the use and meaning of medical terminology used in the Allied Health field. CSU. Offered Fall, Spring. (Prerequisite: Successful completion of BET 103C or 104C. Recommended: ALDH 139) This course may be taken three times.

BET 123T **Machine Transcription** **3.0 Units**
(formerly BET 23T)
Introduces students to word processing transcription of business letters and memos working from transcription machines. Emphasis is on mechanics of written English, and letter styles. CSU. (Prerequisite: Successful completion of BET 103A or 104A) This course may be taken three times.

BET 124 **Records Management with**
(formerly BET 24) **Microcomputer Applications**
2.0 Units
Principles and procedures of establishing and maintaining records systems with detailed instruction and practice in the use of alphabetic, geographic, numeric, and subject filing systems as defined by the Association of Records Managers and Administrators; setting up and managing electronic files. Also includes topics on effective listening, working with people, and telephone techniques. CSU. (No prerequisite)

BET 125 **Secretarial Procedures** **3.0 Units**
(formerly BET 25)
A course designed for students preparing to enter the labor market as secretaries or administrative assistants. Topics include: the interrelation of job requirements and employee attributes, employer and employee qualifications, analysis of job openings, applications and interview, responsibilities and duties, personality and behavior, office dress and personal grooming with special emphasis on the human relations dimension of secretarial employment. Three lecture hours per week. CSU. Offered Fall, Spring. (Prerequisite: BET 121 or ability to type 30 gross wpm and type basic business documents)

BET 127 **Expository Writing on**
(formerly BET 27) **Microcomputer** **1.0 Unit**
Students use the microcomputer for expository writing and learn practical applications of word processing by preparing assignments required in ENGL 101. One lecture hour per week. CSU. (No prerequisite)

BET 130 **WordPerfect Advanced Features**
(formerly BET 30) **3.0 Units**
An advanced WordPerfect applications course designed for those who want to learn about advanced features including the creation of complex forms and spreadsheets, management of large lists, and use of graphics in publication of newsletters and brochures. Two lecture, three laboratory hours per week. CSU. Offered Fall, Spring. (Prerequisite: Equivalent such as high school or on-the-job experience) This course may be taken three times.

BET 131 **Presentation Software:**
(formerly BET 33) **PowerPoint I/II/II** **3.0 Units**
Introduces concepts and business uses of PowerPoint from introductory through advanced skill levels including creating, customizing, delivering, and publishing presentations. CSU. (No prerequisite) This course may be taken two times.

BET 131A **Presentation Software:**
(formerly BET 31A) **PowerPoint I** **1.0 Unit**
This course is designed to teach students concepts and business skills of PowerPoint including creating, editing, and printing effective presentations. CSU. (No prerequisite) This course may be taken four times.

BET 131B **Presentation Software:**
(formerly BET 31B) **PowerPoint II** **1.0 Unit**
Students will learn advanced PowerPoint features such as creating graphs, tables, and slide show effects. CSU. (Prerequisite: BET 131A) This course may be taken four times.

BET 131C **Presentation Software:**
(formerly BET 31C) **PowerPoint III** **1.0 Unit**
This course is designed to teach students concepts and business skills of PowerPoint including customizing delivering, and publishing presentations. CSU. Offered Fall, Spring, Summer. (Prerequisite: BET 131B) This course may be taken three times.

BET 134 **Condensed Word Processing**
(formerly BET 34) **1.0 Unit**
Formerly Condensed Word Processing Using WordStar. Introduction to using the microcomputer to gain practical experience in word processing by completing personal projects. CSU. Offered Fall, Spring. (No prerequisite)

BET 135 **Desktop Publishing:**
(formerly BET 35) **PageMaker** **2.0 Units**
Introduction to page production methods and practices involving text and graphics. Emphasis is on layout and typographical principles to create typeset, camera-ready business publications. Hands-on experience with scanning software, desktop color separation procedures and electronic publishing using the PC computer system. Three hours lecture, three hours laboratory per week for nine weeks. CSU. (No prerequisite)

BET 136 **Career Applications for**
(formerly BET 36) **Word Processing** **3.0 Units**
This course is designed for the student who has already learned word processing functions and formatting principles. Students will learn terminology used in a variety of business careers by applying formatting and keyboarding skills to complex professional documents including letters, memos, forms, tables and reports. CSU. (Prerequisite: BET 68 and BET 103C or BET 104C)

BET 138 **Cooperative Education**
(formerly BET 38)
See Cooperative Education listing (1-8 units). CSU

BET 139A **Advanced Word Processing/**
(formerly BET 39A) **Typing - Applications A** **1.0 Unit**
Application of word processing/typing skills to develop and format complex and specialized documents. CSU. (Prerequisite: Successful completion of BET 122ABC and ability to type 50 gross words per minute. BET 68 is recommended)

BET 139B **Advanced Word Processing/**
(formerly BET 39B) **Typing - Applications B** **1.0 Unit**
Application of word processing/typing skills in developing and formatting complex and specialized documents. CSU. (Prerequisite: Successful completion of BET 139A. BET 68 is recommended)

BET 139C **Advanced Word Processing/**
(formerly BET 39C) **Typing Applications C** **1.0 Unit**
Application of word processing/typing skills in developing and formatting complex and specialized documents. CSU. (Prerequisite: Successful completion of BET 139B. BET 68 is recommended)

BET 141A **Operating System: Windows A**
(formerly BET 41A) **1.0 Unit**
This first unit is an introduction to Windows, A Graphical User Interface environment. Extensive hands-on practice at individual workstations will provide students with the fundamental commands and features of Windows. CSU. (No prerequisite.) This course may be taken three times.

BET 141B **Operating System: Windows B**
(formerly BET 41B) **1.0 Unit**
This second unit covers more extensive hands-on practice with additional Windows commands and use of icons. CSU. (Prerequisite: BET 141A) This course may be taken three times.

BET 141C **Operating System: Windows C**
(formerly BET 41C) **1.0 Unit**
This third unit includes features using program manager and Windows interface. CSU. (Prerequisite: BET 141B) This course may be taken three times.

BET 142 **Office Technologies and**
(formerly BET 42) **Procedures** **3.0 Units**
Students will learn practical application of current automated office procedures, duties, and human relations. Specific topics include telephone, electronic mail, Internet activities, data entry, reference resources, job seeking, mail and shipping services and procedures, office relations, office etiquette and dress, time management, travel arrangements, meetings, minutes, and office equipment. Development of critical thinking skills and decision-making skills throughout the course. Three lecture hours per week. CSU. (Prerequisite: BET 103A or BET 104A, typing skill and competency with a word processing program to format and edit basic business documents.)

BET 143 **Business English** **3.0 Units**
(formerly BET 43)
A technical course for Education Technologies majors designed to create proficiency in written business communication. Includes a comprehensive review of the basic elements for written communication with special emphasis on the basic practices of business, the role and function of business communication as related to these practices, and essential elements of business communication problems and their solutions. Three lecture hours per week. CSU. (No prerequisite)

BET 145 **Communications for Business**
(formerly BET 45) **3.0 Units**
A course designed for Business Office Technologies to create proficiency in the mechanics of writing, reading, and critically analyzing various types of business correspondence and technical reports. Course includes a review of grammar, reading, proofreading, and editing; and analysis of writing styles in business correspondence and report format. Principles of communication psychology as it applies to human relations will be reviewed in solving business communications problems. Three lecture hours per week. CSU. (Prerequisite: Successful completion of BUET 143 or ENGL 50 and one unit of BUET 103A or 104A)

BET 148 **Special Topics**
(formerly BET 48)
See Special Topics listing (Variable units).

BET 149 **Independent Study**
(formerly BET 49)
See Independent Study listing (1-3 units).

BUSINESS ESCROW

BESC 138 **Cooperative Education**
(formerly BUS ESC 38)
See Cooperative Education listing (1-8 units). CSU

BESC 141 **Escrow I, Principles (Basic)**
(formerly BUS ESC 41) **3.0 Units**
Methods and techniques of escrow procedures for various types of business transactions with emphasis on real estate, including the legal and ethical responsibilities for persons engaged in escrow work. Elective for the Real Estate Broker's license. Meets the 18-month, post licensing, educational requirements for the California Real Estate Salesman's license. Three lecture hours per week. CSU. Offered Fall. (No prerequisite)

BESC 142 **Escrow II, Principles (Advanced)**
(formerly BUS ESC 42) **3.0 Units**
Covers the more unusual and difficult types of escrows with an evaluation of the possible solutions. Emphasis is on real estate with some personal property and bulk sales covered. Elective for the Real Estate Broker's license. Meets the 18-month, post licensing, educational requirements for the California Real Estate Salesman's license. Three lecture hours per week. CSU. Offered Spring. (No prerequisite)

BESC 143 **Escrow III, Case Problems**
(formerly BUS ESC 43) **3.0 Units**
Study of the more unusual and difficult types of escrows with particular attention to those escrows wherein conflict or dispute arises. Actual case problems presented for evaluation and discussion. Elective for the Real Estate Broker's license. Three lecture hours per week. CSU. (No prerequisite)

BESC 148 **Special Topics**
(formerly BUS ESC 48)
See Special Topics listing (Variable units). CSU

BESC 149 **Independent Study**
(formerly BUS ESC 49)
See Independent Study listing (1-3 units). CSU

BUSINESS REAL ESTATE

These classes are open to all students with an interest in Real Estate. They are not just for Licensees."

BRE 51 **Fundamentals of Mortgage Banking**
(formerly BUS RE 51) **3.0 Units**
This course provides the student with the broad technical knowledge of both the state and federal laws governing the mortgage loan brokerage business and other lending practices in the state of California. General topics include disclosure statements, RESPA, fair lending practices, trust fund handling, hard money lenders, third party originators, reporting requirements, and securities in the lending industry. Satisfies one of the course requirements for a non-conditional real estate salesperson's license or for the real estate broker's examination. Three lecture hours per week. Elective for Broker's License. (No prerequisite)

BRE 52 **Real Estate Mathematics 3.0 Units**
(formerly BUS RE 52)
A study of the practical applications of mathematics in the real estate industry. Topics include the computations involved in depreciation, interest and amortization, commissions, legal descriptions, escrow and other proration, lease calculations, capitalization, rates of return, and real estate finance. This course can benefit most professionals or students whose work interfaces with real estate industry. Three lecture hours per week. (No prerequisite)

BRE 53 **Real Estate Development**
(formerly BUS RE 53) **3.0 Units**
This course studies the history, principles and processes involved in professionally developing real estate. Course contents include: an eight-stage model of development, land and demographics, real estate and financial markets, discounted cash flow analysis, history of real estate development, market research, role of the public sector, affordable housing, feasibility studies, using market data to support decision making, contract negotiations, construction and completion, property and portfolio management, marketing and sales. Three lecture hours per week. (No prerequisite)

BRE 54 **Principles of Mortgage**
(formerly BUS RE 54) **Origination** **3.0 Units**
This course is designed to provide the student with basic skills needed to originate loans. It includes taking the borrower from the qualification process to designing a loan that will fit individual needs. This course helps demonstrate how to find the right loan among the maze of multiple programs available to the borrower. Three lecture hours per week. (No prerequisite)

BRE 55 **Principles and Practices of**
(formerly BUS RE 55) **Mortgage Processing** **3.0 Units**
This course provides the student with the basics of loan processing and an overview of underwriting regulations and industry terminology. Students learn how to efficiently package and submit a loan for underwriting and approval. This course demonstrates how to analyze a loan application and relevant documents necessary for a loan submission. State and federal mandatory guidelines and disclosures are also discussed. Three lecture hours per week. (No prerequisite)

BRE 56 **Introduction to Financial Planning**
(formerly BUS RE 56) **3.0 Units**
Financial planning draws upon several business disciplines such as finance, banking, insurance, and real estate as well as behavioral sciences that include economics and psychology. This course emphasizes the student's ability to analyze, evaluate, and make decisions regarding the components of personal financial planning. Discussion topics include the time value of money, managing money, the importance of life, health, disability, property and liability insurance, managing investments, tax planning, estate planning, retirement planning and more. Three lecture hours per week.(No prerequisite)

BRE 60 **Advanced Real Estate Appraisal: Compliance and Review Procedures** **3.0 Units**
This course draws on the disciplines of real estate brokerage, finance, banking and appraisal with special attention to loss reduction due to underwriting and appraisal errors. Students with prior experience in the banking, mortgage, or appraisal industries will appreciate this course, however all are welcome. This course enhances the student's ability to analyze, understand and correct errors in real estate appraisals on federally

required underwriting forms, narrative reports and electronic data exchanges. Discussion topics include appraisal analysis, valuation trends, demographic and census interpolation, reporting, communication and review. Uniform Standards of Professional Appraisal Practice will be discussed in relation to the forms reviewed. Three lecture hours per week. (No prerequisite) This course may be taken four times.

BRE 100 Real Estate Principles 3.0 Units
(formerly BUS RE 30)
Introductory course stressing the study of basic information in fundamental subjects in the field of real estate. Topics include legal aspects, legal descriptions, encumbrances, financing, escrow, contracts, taxation, subdivisions and zoning, appraisal, landlord/tenant relations, and arithmetic. Required course before testing for the Department of Real Estate Salesman's License. Elective for Real Estate Broker's License. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

BRE 101 Real Estate Practices 3.0 Units
(formerly BUS RE 31)
Working practices in office listings and sales methods leading to competence. General basic course leading toward professionalism in real estate practice. Advanced topics involve prospecting and listing techniques, real estate agency and disclosure, selling and marketing techniques, advertising, office operations, finance, property management and real estate investment. Required for Real Estate Broker's license. Mandatory course for the 18-month post licensing, educational requirement for the Real Estate Salesman's license. Three lecture hours per week. CSU. (No prerequisite)

BRE 110 Legal Aspects of Real Estate I
(formerly BUS RE 32) 3.0 Units
A practical, applied study of California Real Estate Law which will help avoid legal difficulties arising from real estate transactions, instruments, zoning, and planning. This class is required for the Real Estate Broker's license and meets the 18-month, post licensing, educational requirements for the California Real Estate Salesman's license. Three lecture hours per week. CSU. (No prerequisite)

BRE 111 Legal Aspects of Real Estate
(formerly BUS RE 33) Applications 3.0 Units
A practical study of California real estate law involving the use of the IRAC Method of case study. Students will evaluate the issues raised by the facts of a case, determine what rule of law applies to those facts, as well as examine the reasoning of the court's decisions and its concern for public policy. Three lecture hours per week. CSU. Offered Spring. Elective for Broker's License. (No prerequisite)

BRE 120 Real Estate Appraisal 3.0 Units
(formerly BUS RE 34A)
This course examines narrative appraisal reports, theories of valuation, studies in specific properties, neighborhood data, market research, cost analysis, causes of depreciation, and how to treat the misplaced valuation of residential properties. Course also covers how to start an effective "appraisal plan" and sources of information. Required course for the Real Estate Broker's license. Required for Real Estate Appraisers license. Meets the 18-month, post licensing, educational requirements for the California Real Estate Salesman's license. Three lecture hours per week. CSU. (No prerequisite.)

BRE 121 Advanced Real Estate Appraisal:
(formerly BUS RE 34B) Income Property 3.0 Units
Special emphasis given to income properties, how to obtain significant data and relate to the subject property, the importance of thorough research, and the introduction of capitalization methods. Three lecture hours per week. CSU. Elective for Broker's License. Required for Appraiser's License. (No prerequisite)

BRE 125 Taxes and Real Estate Investment
(formerly BUS RE 35) 3.0 Units
Introductory real estate investment course discusses ownership interests, sources of financing, tax aspects of real estate ownership, market and cash flow analysis for income property, land investing, creative financing, and the laws dealing with foreclosure property investing. Three lecture hours per week. Advanced Finance course for Real Estate Brokers License. CSU. (No prerequisite)

BRE 126 Real Estate Finance 3.0 Units
(formerly BUS RE 36)
This course offers a practical applied study and analysis of money markets, interest rates, and real estate financing with actual case illustrations. Cases demonstrate lending policies, problems, and rules involved in financing commercial and special purpose properties. This class is required for the Real Estate Broker's license and meets the 18-month, post licensing, educational requirements for the California Real Estate Salesman's license. Three lecture hours per week. CSU. (No prerequisite)

BRE 127 Real Estate Office Administration
(formerly BUS RE 37) 3.0 Units
Designed for practicing real estate brokers, managers, or salespersons who plan to open their own office. This course emphasizes factors for success in real estate brokerage. Topics discussed include office location, organization, marketing, accounting, finance, property management, development and professional relations. Elective for the Real Estate Broker's license. Three lecture hours per week. CSU. (No prerequisite)

BRE 138 Cooperative Education
(formerly BUS RE 38)
See Cooperative Education listing (1-8 units). CSU

BRE 139 Real Estate Economics 3.0 Units
(formerly BUS RE 39)
This course offers a study of the economic aspects that impact real estate values and land use. Included is the government's role in the economy, money and credit, community growth patterns, land use controls, and the economic principles of capitalism. This class is required for the Real Estate Broker's license and meets the 18-month, post licensing, educational requirements for the California Real Estate Salesman's license. Three lecture hours per week. CSU. (No prerequisite)

BRE 140 **Real Property Management**
(formerly BUS RE 40) **3.0 Units**
Professional approach to the principles and practices of managing income properties. Topics include leases, rent schedules, collections, evictions, budgets, purchasing, market economics, taxation, maintenance, and record keeping. Elective for the Real Estate Broker's license. Meets the 18-month, post licensing, educational requirements for the California Real Estate Salesman's license. Three lecture hours per week. CSU. Offered Fall. (No prerequisite)

BRE 142 **Real Estate Marketing** **3.0 Units**
(formerly BUS RE 42)
A study of principles and processes involved in professionally marketing real estate. Course content includes: communication and marketing skills as practiced within the real estate industry, real estate advertising, target marketing, development of a marketing plan, product knowledge, people knowledge, qualifying both the buyer and the seller, negotiating and financing skills, and closing the escrow. Development of marketing tools including signs, maps, mail-outs and brochures, referrals, forms and media campaigns will also be covered. Three lecture hours per week. CSU (No prerequisite)

BRE 148 **Special Topics**
(formerly BUS RE 48)
See Special Topics listing (Variable units).

BRE 149 **Independent Study**
(formerly BUS RE 49)
See Independent Study listing (1-3 units).

CAREER DEVELOPMENT

CRDV 52 **Career Development Growing**
(formerly CAR DEV 52) **on the Job** **1.0 Unit**
Course content will include: understanding your personality and interpersonal relationships, and being good at being new. One lecture hour per week. (No prerequisite)

CRDV 53 **Career Development/**
(formerly CAR DEV 53) **Integrating Work and Life** **1.0 Unit**
Course content will include: planning your fiscal fitness program, looking forward to change, and mapping your lifeline. One lecture hour per week. (No prerequisite)

CRDV 54 **Career Development/Developing**
(formerly CAR DEV 54) **Leadership Abilities** **1.0 Unit**
Course content will include: designs of management, analyzing new careers, and stress management. One lecture hour per per week. (No prerequisite)

CRDV 55 **Career Development/Successful**
(formerly CAR DEV 55) **Job Hunt** **0.5 Unit**
Students will develop an individualized plan for job hunting. Topics include transfer skills and experience, research techniques, deciding on what kind of work to seek. Nine lecture hours. (No prerequisite. Credit/No Credit)

CRDV 56 **Resume Writing and**
(formerly CAR DEV 56) **Job Applications** **0.5 Unit**
Course content will include compiling a personal data folder which will enable students to complete various resume formats, including scannable formats, outlining their most saleable job skills. Students will word process resumes and cover letters and be able to appropriately fill out job applications. Students will be introduced to gathering information from and posting resumes to the Internet. Four and one-half lecture hours per week for two weeks. (No prerequisite. Credit/No Credit) This course may be taken four times.

CRDV 57 **Career Development/**
(formerly CAR DEV 57) **Employment Interviews** **0.5 Unit**
The student will learn techniques for the interview process, the importance of physical appearance, body language, and questions and answers for the interview. Offered Fall, Spring (No prerequisite. Credit/No Credit) This course may be taken four times.

CRDV 60 **Workforce Preparedness/**
(formerly CAR DEV 60) **Decision-Making** **0.5 Unit**
This course is designed to prepare students entering the workforce with "life" skills - assessing values, setting goals, and developing action plans - skills that employers look for. The course also examines how to maintain a healthy family life while pursuing a successful career. (No prerequisite.)

CRDV 61 **Workforce Preparedness/**
(formerly CAR DEV 61) **Getting the Job** **0.5 Unit**
This course is designed to help students achieve success in getting jobs. The goal of this course is to provide an understanding of the employment process. Skills taught will help students obtain employment. In addition, the course examines time and stress management skills, which assists in a successful balance between work and personal life. (No prerequisite.)

CRDV 62 **Workforce Preparedness/**
(formerly CAR DEV 62) **Performing on the Job** **0.5 Unit**
This course is designed to help students achieve success in job performance. The course covers personal appearance while looking for work as well as after employment. It makes recommendations for acquiring work clothing while on a limited income. The course also focuses on work-related financial issues including paying bills, obtaining and maintaining credit, saving money, budgeting, shopping, gaining a higher standard of living, transportation needs, lodging, and retirement. (No prerequisite.)

CRDV 63 **Workforce Preparedness/**
(formerly CAR DEV 63) **Keeping the Job** **0.5 Unit**
This course is designed to help students achieve success in keeping a job. The course examines factors that make a good worker, such as attitude, commitment, communication, and coping. Workers rights and employer expectations are also covered. Additionally, the course deals with barriers to maintaining employment (including mental health and substance abuse) and other appropriate workforce issues. (No prerequisite.)

CHEMISTRY

CHEM 1 **Summer Youth Science Academy**
(formerly CHEM 101) **1.0 Unit**
Students are oriented to the resources available on a community college campus, tested for preferred learning styles and given accommodating strategies for academic success. Subsequently they participate in a science curriculum of astronomy, biology, chemistry, computer science, electronics and physics that emphasizes professional and technical vocations, and take field trips to industrial sites engaged in science and technology. This course will not apply to the Associate Degree. (No prerequisite) This course may be taken two times.

CHEM 55 **Introductory Computational Chemistry for the Biological, Environmental and Physical Sciences** **4.0 Units**
This course is designed to give students the basic investigative skills of computational Chemistry and the ability to use these techniques to build mathematical models in the Biological, Chemical, Environmental and Physical sciences. The fundamental computational techniques will include *ab initio* and semiemperical methods using a personal computer, a "hard" test, a Department of Energy and other electronic texts. It is intended to prepare transfer students for advanced curriculum as well as students seeking employment in the field of computational research. One lecture, three Internet hours per week. (No prerequisite) This course may be taken three times.

CHEM 72 **Biomolecular Science** **3.0 Units**
This course is a theoretical approach to laboratory techniques common to modern biotechnical/clinical laboratories. Principles of molecular biology, genetics, metabolism, and immunology will be studied with emphasis on their application to modern analytical methods. Information and Communication technology will be used to develop formal writing and public speaking skills. See cross listing for BIOL 72. Three lecture hours per week. (No prerequisite. Recommended: BIOL 100 or BIOL 107)

CHEM 100 **Introductory Chemistry**
(formerly CHEM 10) **(CAN CHEM 6)** **5.0 Units**
An introductory course in general, organic, and biological chemistry. This course is specifically designed for students preparing for careers in allied health, such as nursing and various fields of therapy. The course satisfies general education requirements for non-majors and assumes no background in chemistry, however, basic math skills are highly recommended. Three lecture, six laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite)

CHEM H100 **Honors Introductory Chemistry**
(formerly CHEM H10) **(CAN CHEM 6)** **6.0 Units**
A foundation in the fundamental concepts, theories, and methodologies of Introductory Chemistry is highly recommended. Critical thinking and analytical skills will be used to develop problem-solving strategies used in Chemistry. Emphasis will be on the use of communication and information technologies in the analysis and presentation of experimental data. Four lecture, six laboratory hours per week. CSU. UC (Prerequisite: Enrollment in honors course requires acceptance in Honors Program.)

CHEM 114 **Environmental Chemistry**
(formerly CHEM 14) **3.0 Units**
A course whose concern is "Can we survive?" indicating that we live in a chemical world, a world of drugs, biocides, fertilizers, nerve gases, defoliants, detergents, plastics, and pollutants, all molecular in nature, and all produced chemically. Consideration of alternative solutions. Regulatory agencies and their functions and limitations. Introduction of sufficient fundamental chemistry to make the practical applications intelligible. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

CHEM 120 **Introduction to Nutrition** **3.0 Units**
(formerly CHEM 20)
This course focuses on the fundamentals of carbohydrates, proteins, fats, vitamins, minerals, and their roles in human metabolism. It is specifically designed for individuals directing nutrition programs, hospitals, and care centers of those acquiring degrees in allied health, child development, or restaurant management, as well as interested homemakers. Selected nutrition topics include personalized and vegetarian nutrition, menu planning, marketing options and chemistry of nutrition. Three lecture hours per week. CSU (No prerequisite) See cross listing for RMGT120. This course may be taken two times.

CHEM 128 **Special Topics**
(formerly CHEM 28)
See Special Topics listing (Variable units). CSU

CHEM 129 **Independent Study**
(formerly CHEM 29)
See Independent Study listing (1-3 units). CSU

CHEM 138 **Cooperative Education**
(formerly CHEM 38)
See Cooperative Education listing (1-8 units). CSU

CHEM 150 **Forensic Chemistry** **5.0 Units**
(formerly CHEM 50)
This course introduces chemical and scientific techniques applicable to the analysis of physical evidence at a crime scene. Here, a crime is not limited to those against individuals. It also includes those against society such as environmental pollution, food adulteration and unsafe chemicals. The course is therefore applicable for students interested in entry level positions in a variety of fields including Administration of Justice, Anthropology and Government/Professional laboratories. A close relationship between theoretical lecture principles and field and laboratory methods is emphasized. Three lecture, six laboratory hours per week. CSU. (No prerequisite)

CHEM 201 **General Chemistry**
(formerly CHEM 1A) **(CAN CHEM 2)** **5.0 Units**
The theories of atomic structure and the application of these theories to an understanding of bonding, solution processes, states of matter, gas laws, general properties of matter, and principles of stoichiometric calculations. Laboratory emphasis on the development of experimental skills. Three lecture, six laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: High school chemistry, or CHEM 100, and working knowledge of MATH 90.) (CHEM 201+202 = CAN CHEM SEQ A)

CHEM 202 **General Chemistry**
(formerly CHEM 1B) **(CAN CHEM 4)** **5.0 Units**
Using atomic theory as developed in Chemistry lA to examine the principles of periodic classification of the elements, thermodynamics, acids and bases, chemical equilibrium, reaction kinetics, coordination compounds. A survey of nuclear, organic and biochemistry. Laboratory emphasis on the development of experimental skills. Three lecture, six laboratory hours per week. CSU, UC. Offered Spring. (Prerequisite: CHEM 201) (CHEM 201+202 = CAN CHEM SEQ A)

CHEM 206 **Introductory Chemistry II:**
(formerly CHEM 6) **Organic Chemistry** **4.0 Units**
An introduction to fundamental concepts of Organic Chemistry for students entering professional health careers. Emphasis is on chemical bonding, structure, nomenclature, chemical properties, and reaction mechanisms of the major organic functional groups emphasizing their relationships to biological systems. Three lecture, three laboratory hours per week. CSU, UC (UC credit limitation). Offered Spring. (Prerequisite: CHEM 100 or equivalent)

CHEM H206 **Honors Introductory Chemistry II:**
(formerly CHEM H6) **Organic Chemistry** **5.0 Units**
Modern organic synthesis, biotech, and pharmaceutical laboratories assess the feasibility of their proposed syntheses using computer generated models of target compounds. Current trends in modern research indicate a growing dependence on computational chemistry. This program will extend topics covered in CHEM 206 into basic concepts of computational chemistry. Emphasis will be on molecular modeling techniques, acquisition, processing, and presentation of experimental data. Four lecture, three laboratory hours per week. CSU (Prerequisite: Enrollment in honors course requires acceptance into the Honors Program or prior approval from the instructor.)

CHEM 207 **Introductory Chemistry III:**
(formerly CHEM 7) **Biochemistry** **4.0 Units**
An introduction to fundamental concepts of biochemical compounds for students entering professional health careers. Emphasis is on the structure, chemical properties, and physiological roles of carbohydrates, lipids, proteins, and nucleic acids. Three lecture, three laboratory hours per week. CSU, UC. Offered Summer. (Prerequisite: CHEM 206 or equivalent)

CHEM H207 **Introductory Chemistry III:**
Biochemistry Honors **5.0 Units**
The application of molecular modeling techniques to biological maromolecules. Computer generate force-fields and molecular graphics will be used to study structural geometry, potential energy surfaces, energy gradients, bond energies, and bond angles. Confirmational analyses will be performed to gain a practical understanding of the advantages and limitation of molecular modeling. Four lecture, three laboratory hours per week. (Prerequisite: Enrollment in honors course requires acceptance into Honors Program.)

CHEM 255 **Quantitative Analysis**
(formerly CHEM 5) **(CAN CHEM 12)** **4.0 Units**
Quantitative, gravimetric, volumetric, and instrumental methods of analysis. Stoichiometric calculations and applications of principles of chemical equilibrium to analytical problems. Laboratory accuracy required. Three lecture, three laboratory hours per week. CSU, UC. Offered Summer. (Prerequisite: CHEM 202 or year course in General Chemistry)

CHEM 281 **Organic Chemistry** **5.0 Units**
(formerly CHEM 8A)
The chemistry of aliphatic and aromatic hydrocarbons with emphasis on material fundamental to biochemistry. Modern concepts of chemical bonding, molecular reactions, structure, nomenclature, principles of stereo-chemistry, mechanisms, and synthetic pathways. Laboratory techniques include isolation, separation, purification, spectroscopy, and chromatographic analysis of organic compounds. Three lecture, six laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall. (Prerequisite: CHEM 202)

CHEM 282 **Organic Chemistry** **5.0 Units**
(formerly CHEM 8B)
Principles and experimental techniques developed in CHEM 8A are extended to include synthesis and identification, nomenclature, derivatives, spectroscopy, and reactions of functional groups, heterocycles, and aromatic compounds. Biochemistry of carbohydrates, lipids, proteins, nucleic acids, and other biologically significant compounds is also examined. Three lecture, six laboratory hours per week. CSU, UC. Offered Spring. (Prerequisite: CHEM 281)

CHILD DEVELOPMENT

NOTE: Child development courses numbered 1-18 are intended for professional development and are non-degree applicable.

CHDV 1 **Mentor Seminar A** **0.5 Unit**
(formerly CLDDEV 101)
Beginning early childhood Mentors attend monthly seminars to explore issues related to their new role as supervisors of early childhood student teachers. Seminar content will be individualized to meet the needs of each Mentor. One lecture hour per week for nine weeks. Credit/No Credit. This course will not apply to the Associate Degree. (No prerequisite)

CHDV 2 **Mentor Seminar B** **0.5 Unit**
(formerly CLDDEV 102)
Continuing early childhood Mentors attend monthly seminars to further explore issues begun in Mentor Seminar A and related to their role as supervisors of early childhood student teachers. Seminar content will be individualized to meet the needs of each Mentor. One lecture hour per week for nine weeks. Credit/No Credit. This course will not apply to the Associate Degree. (No prerequisite)

CHDV 3 Advanced Mentor Seminar A
(formerly CLDDEV 103) 0.5 Unit
Senior early childhood Mentors attend monthly seminars to further explore issues covered in Mentor Seminar B and related to their roles as supervisors of early childhood student teachers and early childhood professionals. Additional emphasis will be placed on their role as advocates and change agents. Seminar content will be individualized to meet the needs of each Mentor. One lecture hour per week for nine weeks. Credit/No Credit. This course will not apply to the Associate Degree. (No prerequisite)

CHDV 4 Advanced Mentor Seminar B
(formerly CLDDEV 104) 0.5 Unit
Senior early childhood Mentors attend monthly seminars to further explore issues covered in Advanced Mentor Seminar A and related to their roles as supervisors of early childhood student teachers, early childhood professionals, advocates and change agents. Additional emphasis will be placed on their roles as Senior Mentors and researchers. Seminar content will be individualized to meet the needs of each Mentor. One lecture hour per week for nine weeks. Credit/No Credit. This course will not apply to the Associate Degree. (No prerequisite) This course may be repeated.

CHDV 5 Director Seminar 0.5 Unit
(formerly CLDDEV 105)
Directors, site supervisors and other administrators of early childhood programs attend monthly seminars to explore issues related to professional duties, including quality improvement efforts, advocacy, supervision of staff, consumer education and the mentoring of colleagues. Seminar content will be individualized to meet the needs of participants. One-half lecture hour per week. Credit/No Credit. This course will not apply to the Associate Degree. (No prerequisite) This course may be repeated.

CHDV 10 Enriching the Early Childhood
(formerly CLDDEV 106A)Curriculum-
Circle Time Music 1.0 Unit
This course is a hands-on, practice based course designed to provide the student with a broad repertoire of skills, activities, and ideas for enriching large group circle time activities through music. This course will not apply to the Associate Degree. Three lecture hours per week for six weeks. (No prerequisite).

CHDV 11 Enriching the Early Childhood
(formerly CLDDEV 106B)Curriculum - Art Appreciation
for Young Children 1.0 Unit
This course is a hands-on, practice based course designed to provide the student with a broad repertoire of skills, activities, and ideas for enriching the early childhood education curriculum through art appreciation. This course will not apply to the Associate Degree. Three lecture hours per week for six weeks. (No prerequisite).

CHDV 12 Enriching the Early Childhood
(formerly CLDDEV 106C) Curriculum- Storytelling
with Puppets and Flannel
Boards 1.0 Unit
This course is a hands-on, practice based course designed to provide the student with a broad repertoire of skills, activities, and ideas for enriching the early childhood education curriculum through the use of storytelling involving theatrics, puppetry, and flannel boards. This course will not apply to the Associate Degree. Three lecture hours per week for six weeks. (No prerequisite).

CHDV 13 Enriching the Early Childhood
(formerly CLDDEV 106D) Curriculum - Technology in
the ECE Classroom 1.0 Unit
This course is a hands-on, practice based course designed to provide the student with a broad repertoire of skills, activities, and ideas for enriching the early childhood education curriculum through the creative application of technology. This course will not apply to the Associate Degree. Three lecture hours per week for six weeks. (No prerequisite).

CHDV 14 Enriching the Early Childhood
(formerly CLDDEV 106E) Curriculum - Woodworking
1.0 Unit
This course is a hands-on, practice based course designed to provide the student with a broad repertoire of skills, activities, and ideas for enriching the early childhood education curriculum through woodworking experiences. This course will not apply to the Associate Degree. Three lecture hours per week for six weeks. (No prerequisite).

CHDV 15 Enriching the Early Childhood
(formerly CLDDEV 106F) Curriculum-
Music with the Autoharp 1.0 Unit
This course is a hands-on, practice based course designed to provide the student with a broad repertoire of skills, activities, and ideas for enriching the early childhood music education program through the use of the Autoharp. This course will address basic technique and music theory in the context of developmentally appropriate practice for enriching the curriculum with musical instruments. This course will not apply to the Associate Degree. Three lecture hours per week for six weeks. (No prerequisite).

CHDV 16 Enriching the Early Childhood
(formerly CLDDEV 106G) Curriculum- Hands-on Learning
in School-Aged Care 1.0 Unit
This course is a hands-on, practice based course designed to provide the student with a broad repertoire of skills, activities, and ideas for enriching a school-aged childcare program. The course will focus on the application of developmental theory surrounding children in grades K-6. Students will become familiar with developmental ages and stages and how they relate to developmentally appropriate practice, how to access student interests to drive the curriculum forward, and how to establish parent and community connections to support a school-aged before and after school program. This course will not apply to the Associate Degree. Three lecture hours per week for six weeks. (No prerequisite).

CHDV 17 (formerly CLDDEV 106H) **Enriching the Early Childhood Curriculum - Hands-on Experiences in Infant/Toddler Care** **1.0 Unit**

This course is a hands-on, practice based course designed to provide the student with a broad repertoire of skills, activities, and ideas for enriching an infant/toddler. The course will focus on the application of developmental theory surround children age birth through three. Students will become familiar with developmental ages and stages and how they relate to developmentally appropriate practice, how to assess children's interests to drive the curriculum forward, and how to adapt curriculum ideas to the rapidly expanding repertoire of skills in these early years. This course will not apply to the Associate Degree. Three lecture hours per week for six weeks. (No prerequisite).

CHDV 18 (formerly CLDDEV 106I) **Enriching the Early Childhood Curriculum- Center Time Activities** **1.0 Unit**

This course is a hands-on, practice based course designed to provide the student with a broad repertoire of skills, activities, and ideas for enriching a preschool or family childcare curriculum through the use of centers. The course will focus on the application of developmental theory for young children's physical, cognitive, social and emotional development. Students will become familiar with theme-based curriculum that enriches language development, creativity, social interaction skills and physical growth and development. This course will not apply to the Associate Degree. Three lecture hours per week for six weeks. (No prerequisite).

CHDV 106 (formerly CLDDEV 6) **Child, Family and Community** **3.0 Units**

The scientific study of societal institutions which socialize the child, such as the family, school, peer group, community and media within the context of culture, religion, economics, politics and change. Major theoretical perspectives will be examined. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

CHDV 110 (formerly CLDDEV 10) **Introduction to Early Childhood Education** **3.0 Units**

This course is a comprehensive overview of theory and practice of early childhood education. Students will gain an understanding of care and education of children from birth through age eight; including developmental stages, accommodating developmental needs through curriculum, health and safety, effective group settings, teaching through play, and family relationships. Students will be introduced to current programs and careers. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

CHDV 111 (formerly CLDDEV 11) **Infant and Toddler Caregiving** **3.0 Units**

A study of the physical, perceptual, socio-emotional, cognitive development and behavior of the young child from birth to age three. Emphasis will be on the translation of theories of development to appropriate practices in the caregiving environment. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

CHDV 115 (formerly CLDDEV 15) **Family Day Care Provider** **3.0 Units**

This course will address the many factors involved in providing quality child care in one's home. This course will cover how to set up a safe, healthy and stimulating environment that meets the developmental needs of the diverse ages served in family day care homes. Providers will develop or refine their business policies and procedures, parent contracts, and personal philosophy and goals. Additionally, training in preventive health practices will enable providers to partially fulfill AB 243 requirements. Three lecture hours per week. CSU (No prerequisite. Grade option.)

CHDV 127A (formerly CLDDEV 27A) **Programs/Curriculum In A Supervised Field Experience I** **4.0 Units**

This program/curriculum course provides a supervised field experience working with children in a variety of early childhood programs. Students will complete their practicum at the campus Child Development Center or with an approved mentor teacher in the community. Emphasis is placed on developing interpersonal skills and specific teaching strategies to work effectively with parents and staff and to support the social and emotional development of young children. T.B. clearance is required for this course. Two lecture, six laboratory hours per week. CSU. Offered Fall, Spring. (No prerequisite)

CHDV 127B (formerly CLDDEV 27B) **Programs/Curriculum In A Supervised Field Experience II** **4.0 Units**

This program/curriculum course provides a supervised field experience working with children in a variety of early childhood programs. Students will complete their practicum at the campus Child Development Center or with an approved mentor teacher in the community. Emphasis is placed on developing ability to plan, implement, and assess a variety of activities plus a comprehensive curriculum unit. T.B. clearance is required for this course. Two lecture, six laboratory hours per week. CSU. Offered Fall, Spring. (Prerequisite: Completion of CHDV 127A)

CHDV 132 (formerly CLDDEV 132) **Montessori Methods of Education** **3.0 Units**

This course is designed to introduce the student to Dr. Montessori's life, work, philosophy of education and classroom design. This will be accomplished through lecture, reading and exploration of her materials designed specifically for the education of the young child. Students will be exposed to a variety of such materials and will create materials to use in his/her own classroom. Three lecture hours per week. CSU. (No prerequisite. Grade option.)

CHDV 133 (formerly CLDDEV 33) **Art Experiences for Young Children** **3.0 Units**

This course offers students the opportunity to develop the ability to plan curriculum in the area of creative art for the young child. Students will select, develop, and present art materials and activities for young children. An understanding of appropriate developmental art experiences and the creative process will be stressed. Emphasis is placed on developing a classroom environment that promotes creative expression. Three lecture hours per week. CSU. Offered Fall. (No prerequisite)

CHDV 134 (formerly CLDDEV 34) Language and Early Literacy Development 3.0 Units
This course will focus on the young child's language acquisition and early literacy development. Emphasis will be on introducing students to developmentally appropriate activities and practices, which will foster language and early literacy. The course will allow students to develop language curriculum materials. It will satisfy the program/curriculum requirement for licensing and credentialing. Three lecture hours per week. CSU. Offered Spring. (No prerequisite)

CHDV 137 (formerly CLDDEV 37) The Child with Special Needs 3.0 Units
This course will provide the history of special education in the early childhood setting including an overview of legislation, assessment, curriculum development, and environmental issues. Students will identify the interrelationships of family, communities, and the early childhood educators. Three lecture hours per week. CSU. Offered Spring. (No prerequisite)

CHDV 138 (formerly CLDDEV 38) Cooperative Education
See Cooperative Education listing (1-8 units). CSU

CHDV 141 (formerly CLDDEV 41) Basics of School-Age Child Care 3.0 Units
An introduction to appropriate practices in school-aged programs and curriculum based upon knowledge of the social, emotional, physical, and cognitive development of the child ages six to twelve. Exploration of curriculum units that include creative art, music, and literature. Three lecture hours per week. CSU. (No prerequisite)

CHDV 142 (formerly CLDDEV 42) Child Health, Safety, and Nutrition 3.0 Units
This course addresses basic concepts of health, safety and nutrition which promote optimal health and positive attitudes toward wellness in the growing child at home and at school. Included will be identification and prevention of health problems; practical aspects of developing safe and healthy environments; and promoting good nutrition and food habits. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

CHDV 143 (formerly CLDDEV 43) Introduction to the High/Scope Curriculum 3.0 Units
Provides students with a working knowledge of the High/Scope curriculum model. This model stresses an active learning classroom based upon Jean Piaget's theories of child development. Course will cover origins of model, classroom arrangement, curriculum, adult/child interaction and observation techniques. Three lecture hours per week. CSU.(No prerequisite)

CHDV 144 (formerly CLDDEV 44) Math and Science Experiences for Young Children 2.0 Units
This class will focus on the preschool child's acquisition of science and mathematical concepts. Emphasis will be on introducing students to developmentally appropriate activities and practices which will foster development in these areas. This course will also focus on the teacher's (adult) role in establishing an environment rich in opportunities for self-directed activities and will assist teachers in developing science and math materials and activities. CSU. Offered Spring. (No prerequisite)

CHDV 145 (formerly CLDDEV 45) Music/Movement Experiences for Young Children 2.0 Units
This course focuses on musical activities and experiences through which children develop skills, concepts and attitudes. It will introduce students to gross motor development in the early years and how to facilitate this development with music and movement activities. Students will select, develop and present music and movement activities leading to a comprehensive file of classroom activities to be implemented in one's own early childhood setting. Two lecture hours per week. CSU Offered Fall. (No prerequisite)

CHDV 146 (formerly CLDDEV 46) Child Growth and Development 4.0 Units
A study of the child from conception through adolescence; cognitive, physical and social emotional development. Guidance for the developmental stages will be included. Three lecture hours per week. CSU, UC (No prerequisite) Offered Fall, Spring

CHDV 148 (formerly CLDDEV 48) Special Topics
See Special Topics listing (Variable units). CSU

CHDV 149 (formerly CLDDEV 49) Independent Study
See Independent Study listing (1-3 units). CSU

CHDV 220 (formerly CLDDEV 20) The Mentor Teacher / Adult Supervision 2.0 Units
A study of the methods and principles of supervising student teachers/adults in early childhood programs. Emphasis on the role of experienced classroom teachers/supervisors who function as Mentors to teachers while simultaneously addressing the needs of children, parents and other staff. Four lecture hours per week for eight weeks. CSU. (Prerequisites: CHDV 106 and CHDV 146))

CHDV 239 (formerly CLDDEV 39A) Administration of Children's Programs I 3.0 Units
Funding, licensing, planning, organizing, and managing a variety of programs for young children. The administrator's role, site development, on-going organization, staff relations, and working with parents and volunteers explored. Designed to meet Children's Center Supervision Permit requirements. Three lecture hours per week. CSU. (Prerequisite: completion of State Department of Health required core courses (CHDV 106 and CHDV 146 or equivalent. It is recommended that students currently enrolled in this course be working in the field.)

CHDV 240 (formerly CLDDEV 39B) **Administration of Children's Programs II** **3.0 Units**
This course explores the human relations aspect of administering children's programs. The emphasis will be placed on integration of early childhood philosophy into management practices, business/management skills, community relations, professional responsibilities related to child advocacy, labor relations and staff management. Multi-cultural awareness and implementation, mainstreaming issues and parent involvement will be included. This course is designed to fulfill three of the six semester units of administration required for the Children's Center Supervisor Permit. Three lecture hours per week. CSU. (Prerequisite: Completion of the State Department of Health required core courses (CHDV 106 and CHDV 146 or equivalent. It is recommended that students currently enrolled in this course be working in the field.)

COMPUTER INFORMATION SYSTEMS

CIS 50 **Computer Ethics** **2.0 Units**
This course is an introduction to the theories and issues of ethical behavior as applied to the exigencies of a rapidly changing, information-oriented, computer-driven society. Topics include ethical history, philosophies, and issues at the responsibility level of both corporate business and the individual. Various ethical theories are introduced and discussed. Numerous current and past case histories are presented. Two lecture hours per week. (No prerequisite)

CIS 56 **Project Management with Microsoft Management** **3.0 Units**
This course will provide the student with the skills necessary to manage projects using Microsoft Project. The student will be introduced to Gantt and PERT charts, the concept of a critical path, resource scheduling and leveling, and other concepts used in managing large projects. Efficient use of resources, people and equipment will be emphasized. Two lecture, three laboratory hours per week. (No prerequisite)

CIS 64 **Computer Mathematics** **3.0 Units**
Computer mathematics for the computer science major. Introduction to number bases, set theory, Venn diagrams, logic, Boolean algebra, algebraic expressions, exponents, linear and quadratic equations, matrices, mathematical sequences and series, linear programming and logarithmic functions. Three lecture hours per week. Offered Fall. (Prerequisite: High school algebra or MATH 50 or equivalent)

CIS 67 **Fundamentals of Networking** **2.5 Units**
This course presents a broad overview of the fundamentals of networking computers. It discusses in some detail various network topologies, architectures, industrial standards, standards-defining organizations, and the practical use of networks. Mainframe and microcomputer networks are discussed. Four lecture, three laboratory hours per week for nine weeks. (No prerequisite) This course may be taken four times.

CIS 71 **Network Technologies** **1.0 Unit**
This course is highly recommended for those seeking the Certified Netware Engineer (CNE) certification from Novell Corporation. Conceptual generalities are explained through a discussion of contemporary network services, transmission media, and protocols. Although this course is not designed to cover specific network products, it does provide prerequisite information for many network product courses. Two lecture hours per week for nine weeks. (No prerequisite)

CIS 72 (formerly CIS 74) **Novell NetWare 6 Basic Administration** **2.5 Units**
This course knowledge and skills needed to perform NetWare 6 network administration or system management tasks effectively. Participants who complete this course will be able to accomplish basic and fundamental network management tasks in a NetWare 6 network. This course is highly recommended for those seeking either the Certified NetWare Engineer (CNE) or the Enterprise Certified NetWare Engineer (ECNE) certification from Novell Corporation and for NetWare 6 users and NetWare administrators who are responsible for the day-to-day operational management of a NetWare 6 network. Four lecture, three hours per week for nine weeks. (No prerequisite) This class may be taken four times.

CIS 77 **NetWare Service and Support** **2.5 Units**
This course focuses on the prevention, diagnosis, and resolution of hardware-related problems encountered when working with the NetWare network operating system. While the course is taught in a NetWare 5 environment, the skills taught are also valuable when optimizing and maintaining systems using many other Novell products. Students explore in detail a number of research tools that will assist them in acquiring the information needed to solve "real-world" problems. This course includes six extensive problems which are addressed, discussed, and resolved in class. The materials are designed to provide a reference participants can continue to use on the job. This course is intended for technical support personnel responsible for diagnosing and resolving problems with Novell networks, and Certified NetWare Engineers (CNE) or Enterprise Certified NetWare (ECNE). Four lecture, three laboratory hours per week for nine weeks. (No prerequisite) This course may be taken four times.

CIS 78 (formerly CIS 81) **GroupWise Administration** **2.0 Units**
Designed to train students to prepare and write the basic assembly language programs for microcomputer systems in both business and scientific applications. Three lecture, three laboratory hours per week for nine weeks. CSU (Prerequisite: CIS 72) This course may be taken two times.

CIS 79 (formerly CIS 82) **Novell Directory Services Design and Implementation** **2.5 Units**
This course teaches network administrators, network designers, and networking consultants the skills needed to create a Novell Director Services (NDS) design and implementation strategy. Students will complete an NDS design and strategy implementation schedule using templates that can be reused to create a design for their workplace. Four lecture, three laboratory hours per week for nine weeks. CSU (Prerequisite: CIS 72) This course may be taken four times.

CIS 90 **Introduction to Unix Operating System** **4.0 Units**

This course introduces the Unix and Linux operating systems. Topics include the history of Unix, commands and utilities, file system structure, shells, graphical user interfaces, networking, text editing and shell programming. Three lecture, three laboratory hours per week. (No Prerequisite) This course may be taken four times.

CIS 91A **MySQL Administration A** **2.0 Units**

This course is designed to provide students with an introduction to the MySQL relational database management system. Students will learn how to design, install, configure and secure MySQL databases. The student should have prior experience with the fundamentals of databases. Three lecture, three laboratory hours per week for nine weeks. (No Prerequisite) This course may be taken four times.

CIS 91B **MySQL Administration B** **2.0 Units**

This second course in MySQL database administration is designed to provide students with an advanced approach to current database administration issues in enterprise level databases. Topics include: transactions, multiple servers, replication, locking and administration interfaces. Three lecture, three laboratory hours per week for nine weeks. (No Prerequisite) This course may be taken four times.

CIS 93 **Perl** **4.0 Units**

This course is designed to provide students with an understanding of the Perl scripting language used in Unix and Linux systems. Students will learn how to design and implement dynamic scripts through strings, operators, variables, arrays, control structures, expressions, functions, file handles and database access controls. Three lecture, three laboratory hours per week. (No Prerequisite) This course may be taken four times.

CIS 94 **PHP (Hypertext Preprocessor) Programming** **4.0 Units**

This course is designed to provide students with an introduction to programming web-based applications using PHP. Students will learn how to design, code and implement dynamic web sites. This course will move the student from an understanding of XHTML to the development of powerful web applications that can be deployed over the Internet. Three lecture, three laboratory hours per week. (No Prerequisite) This course may be taken four times.

CIS 95 **PHP+MySQL Web Application Development** **4.0 Units**

This course focuses on providing students experience with advanced programming of web-based applications using PHP+MySQL. Students will learn how to design, code and implement data driven web sites. This course will move the student from an understanding of PHP (Hypertext Preprocessor) to the development of powerful web applications that can be deployed over the Internet or the intranet. Three lecture, three laboratory hours per week. (No Prerequisite) This course may be taken four times.

CIS 96A **Structured Query Language A Using MySQL** **2.0 Units**

This is the first of two courses in Structured Query Language using the MySQL database management system. Topics include concepts of relational databases and SQL, creating and using databases and performing queries. Three lecture, three laboratory hours per week for nine weeks. (No Prerequisite) This course may be taken four times.

CIS 96B **Structured Query Language B Using MySQL** **2.0 Units**

This is the second course in Structured Query Language using the MySQL relational database management system. Topics include: Joins, IF/Case statements, indexing, batch operations and locking strategies. Three lecture, three laboratory hours per week for nine weeks. (No Prerequisite) This course may be taken four times.

CIS 97 **XML Programming** **4.0 Units**

This course introduces students to the foundations that comprise the XML family of technologies. Topics include: well-formed XML syntax rules; validation of XML using DTDs and Schemata; introductory DOM and SAX Scripting; creating XML data islands on XHTML pages; using CSS, XSL, XSL-FO and XSLT to style XML content; move data to/from databases using XML; and several advanced topics. Three lecture, three laboratory hours per week. (No Prerequisite) This course may be taken four times

CIS 101 **Computer Literacy (CAN CSCI 2)**
(formerly CIS 1) **4.0 Units**

This is a survey course which provides an overview of computer technology for multi disciplinary majors. Using laboratory projects supported by the lecture, the student gains "hands- on" familiarity with different operating systems, word processors, spreadsheets, database management systems, programming, networks and the use of the Internet (or the Information Superhighway). Three lecture, three laboratory hours per week. CSU, UC (No prerequisite)

CIS 102 **Introduction to Operating Systems:**
(formerly CIS 2) **DOS** **3.0 Units**

This course is designed for the computer science major and others who require a knowledge of DOS internals. It will present an overview of those features which are common to all operating systems and then demonstrate how those features are implemented in DOS. A special emphasis will be placed on DOS utilities and interfacing programs with DOS's internal environment and functions. Two lecture, three laboratory hours per week. CSU. (No prerequisite)

CIS 103 **Foundations of Computer**
(formerly CIS 3) **Technology** **4.0 Units**

This course is required for earning either a degree or most certificates in CIS. It provides an in-depth, detailed introduction to computer technology for technical users, computer information system majors, students desiring to major in CS or CIS at a four-year school. In addition to significant lecture time, five major laboratory projects provide the student with "hands-on" experience with such topics as neural networks, simulation, and object technologies. Three lecture, three laboratory hours per week. CSU. (No prerequisite)

CIS 104 **Object-oriented Software Design**
(formerly CIS 4) **3.0 Units**
This is a first course in the object-oriented modeling and design, a new way of thinking about problems using models organized around real-world concepts. The fundamental object-oriented construct is the object, which combines both data structure and behavior in a single entity. Object-oriented models are useful for understanding complex problems, communicating with application experts, modeling enterprises, preparing documentation, and designing programs and databases. This course is a prerequisite to all object-oriented programming language courses for it provides a requisite baseline working knowledge of unique object-oriented concepts and structure such as classes, objects and methods, encapsulation, inheritance, polymorphism and message abstraction, and static virtual methods. Three lecture hours per week. CSU. (No prerequisite)

CIS 105 **Introduction to Systems Analysis**
(formerly CIS 5) **3.0 Units**
Introduces the three major skills required to perform effectively as a beginner in a systems analysis environment. Defines the specific steps in the determination of new systems' requirements, system design, and the creative process used to select and make recommendations as to one or more solutions to system development. Three lecture hours per week. CSU. Offered Spring. (No prerequisite)

CIS 106 **Introduction to Computer**
(formerly CIS 6) **Technology for Educators**
4.0 Units
A survey course which provides an overview of computer technology for multi-disciplinary majors, but with emphasis on its role in educational settings. The course provides instruction in a variety of topics supported by hands-on laboratory work with operating systems, word processing, spreadsheets, databases, desktop publishing, programming, networks, and the Internet. Application and evaluation of computer technology in learning environments serves as the overall framework. See cross listing for ETEC 106. Three lecture, three laboratory hours per week. CSU (No prerequisite)

CIS 107 **Introduction to The Internet**
(formerly CIS 7) **for Educators** **2.0 Units**
A course for education students or current teachers to acquire the skills needed to effectively utilize the Internet in the classroom. Emphasis will be placed on computer-mediated communication with the World Wide Web. Students will become well versed in the use of Web browsers, FTP, newsgroups/asynchronous discussion, e-mail, and chat/synchronous discussion. See cross listing for ETEC 107. Three lecture, three laboratory hours per week for nine weeks. CSU (No prerequisite)

CIS 108 **Assembly Language Programming**
(formerly CIS 8) **(CAN CSCI 10)** **3.0 Units**
Designed to train students to prepare and write the basic assembly language programs for microcomputer systems in both business and scientific applications. Two lecture, three laboratory hours per week. CSU, UC. Offered Spring. (No prerequisite)

CIS 111 **Multimedia Presentations**
(formerly CIS 35) **4.0 Units**
Students gain experience in developing multimedia presentations while gaining an understanding of multimedia technologies. In acquiring "hands-on" experience in producing and presenting multimedia presentations, the student will also actively create audio files, full-motion video clips, graphics, animation sequences, and the text used in the final production. Additional subjects which will be covered include the basic principles for effective communications, scripting, logical control of peripheral devices, and runtime packaging. Three lecture, three laboratory hours per week. CSU. (No prerequisite)

CIS 123 **Introduction to Operating**
(formerly CIS 23) **Systems: UNIX**
3.0 Units
This course is designed for those who require a knowledge of UNIX. It covers four major areas of operating systems: processes file systems, memory management, and input/output. Topics include trade-offs associated with systems call versus library routines, multitasking, protection, communication protocols, multiuser environments, scheduling, real-time constraints, design issues, and data structures with their associated operations. Concepts underlying the UNIX operating system will be taught using the MINIX operating systems. Two lecture, three laboratory hours per week. CSU. (No prerequisite)

CIS 124 **Fundamentals of Data**
(formerly CIS 24) **Communications** **2.0 Units**
This course presents the general computer user with a basic understanding of data communications with added emphasis on telecommunications. The course includes analog and digital transmission concepts, networks, protocols, operating systems, local area networks (LANs), network architectures, network topologies, security, error detection and correction codes. Two lecture hours per week. CSU. (No prerequisite)

CIS 125 **NetWare TCP/IP Administration**
(formerly CIS 25) **2.0 Units**
Learn how to install and configure TCP/IP, (Transmission Control Protocol/Internet Protocol) on Novell NetWare 4 servers. Topics include: overview of TCP/IP, setup and installation of TCP/IP on NetWare 4, common TCP/IP applications such as telnet and FTP (File Transfer Protocol), troubleshooting of common problems. This course is for those who intend to become NetWare administrators. It is one of seven courses needed for CNE (Certified NetWare Engineer) certification. Three lecture, three laboratory hours for nine weeks. CSU. (Prerequisite: CIS 72 or equivalent)

CIS 127 **NetWare Installation and**
(formerly CIS 27) **Configuration** **2.0 Units**
Learn all the different aspects of installing and configuring NetWare 4 by getting hands-on experience upgrading, migrating, and installing in various scenarios designed to simulate real world situations. This course is intended for those who wish to become NetWare administrators. It is one of seven courses needed for CNE certification. Three lecture, three laboratory hours per week for nine weeks. CSU. (Prerequisite CIS 251)

CIS 136 **Introduction to the Internet/**
(formerly CIS 36) **WWW** **2.0 Units**
This course of instruction is designed for the student or savvy business person that wants to acquire the skills needed to effectively interact and utilize the resources of the Internet and its newer component, the World Wide Web (WWW). By com-

pleting this course, a student will become well versed in the understanding and using of browsers and views, FTP (File Transfer Protocol), news groups, e-mail, and chat/conversation utilities. They will also be made aware of some of the other concerns relating to using the Internet, such as privacy and security issues. Three lecture, three laboratory hours per week for nine weeks. CSU. (No prerequisite)

CIS 137 Introduction to HTML 2.0 Units
(formerly CIS 37)
This course of instruction is designed for the student or business person who wants to acquire the skills needed to create a presence on the WWW (World Wide Web) in the form of a Web Page. The student will become conversant with HTML (Hypertext Mark-up Language) and able to use HTML for Web Authoring (designing, implementing, and maintaining). Several tools will be explored, such as but not limited to, text editors, WYSIWYG (what you see is what you get) editors, and tag editors. Three lecture, three laboratory hours per week for nine weeks. CSU. (No prerequisite. CIS 136 recommended)

CIS 138 Cooperative Education
(formerly CIS 38)
See Cooperative Education listing (1-8 units). CSU

CIS 139 Windows XP for Power Users
(formerly CIS 39) 4.0 Units
Students gain experience in the configuring and optimizing of Windows 95. Experience includes Control Panel programs and modification of the system settings. The use of Utility programs, Disk Defragmenter, Scandisk, and REGEDIT (registry editor). Additional subjects covered include installation, hardware detection, and troubleshooting system problems. Windows 95 networking and set up will be addressed. Three lecture, three laboratory hours per week. CSU. (No prerequisite)

CIS 201 C++ Module A:
(formerly CIS 32A) An Introduction to Programming
4.0 Units
An introduction to programming using the C++ language. This course is appropriate for those wishing to learn the principles of computer programming and to gain some initial experience with C++. Three lecture, three laboratory hours per week. CSU (No Prerequisite. CIS 101 recommended)

CIS 202 C++ Module B:
(formerly CIS 32B) Understanding the Language and OOP 4.0 Units
The second in the C++ series, this course teaches the student who is familiar with the language how to use its object-oriented features in depth. Subject matter includes: designing and implementing classes, abstract data types, overloading operators, inheritance, and polymorphism. Three lecture, three laboratory hours per week. CSU (Prerequisites: CIS 201. CIS 104 recommended)

CIS 203 C++ Module C 4.0 Units
The third in a series of C++ programming courses, this course focuses on giving the student experience in applying their C++ knowledge to realistic problems, and in an environment that is modeled on real world programming. Three lecture, three laboratory hours per week. CSU (Prerequisite: CIS 202)

CIS 205 Client Side Scripting 4.0 Units
(formerly CIS 42)
This course teaches students how to use one of the popular client-side scripting languages, such as VB script, Java script, to develop interactive, high quality Web pages. Students must already have the knowledge and some experience with Hyper Text Mark-up Language HTML. Previous programming experience while helpful, however, is not required. Three lecture, three laboratory hours per week. CSU (Prerequisite: CIS 137 or experience with HTML)

CIS 206A JAVA Programming A 2.0 Units
(formerly CIS 44A)
This is an introductory course for programming in Java. The course will cover the basics of the Java programing language and object-oriented programming method. Some of the more advanced topics such as applets programming, data structure implementation in Java will also be covered. Three lecture, three laboratory hours per week for nine weeks. CSU. (Prerequisites: CIS 133 or equivalent. Recommended: CIS 104)

CIS 206B JAVA Programming B 2.0 Units
(formerly CIS 44B)
This is a second course in Java programming. The course will review the basics of the Java language and object oriented programming. The main topics of the course include Java applet programming and networking with Java. Two lecture, six laboratory hours per week for nine weeks. CSU. (Prerequisite: CIS 206A)

CIS 210 Visual Basic Programming
(formerly CIS 33) 4.0 Units
Visual Basic is the world's most popular programming language used for application development. This course is based on the latest VB.NET. With the .NET technology, VB is now a fully object-oriented programming language suitable not only for Windows applications, but also for Web applications. While retaining its advantages in ease of learning, efficiency at developing sophisticated applications, VB.NET has now added an array of powerful features such as Web forms, mobile controls, support for XML, full compatibility with other languages (such as C#, Visual C++, Cobol, NET), etc. Students will learn all the programming basics using VB.NET, as well as being exposed to topics such as Object-Oriented programming, Database programming, and Web programming. Three lecture, three laboratory hours per week. CSU. (No prerequisite. Recommended: students should have at least one programming course in Pascal, Basic, C, or Fortran, college algebra and computer math.) This course may be taken three times.

CIS 211A Advanced VB Programming
(formerly CIS 13) Module A:
Advanced Topics 4.0 Units
This is an advanced programming course using VB.NET. The course focuses on developing Object-Oriented applications using the latest Microsoft .NET technology. Topics covered include .NET Framework and CLR, class implementation, inheritance, polymorphism, exception handling, multithreading, developing custom controls for Windows forms and Web forms, etc. Three lecture, three laboratory hours per week. CSU (Prerequisite: CIS 210. Recommended: CIS 104) This course may be taken three times.

CIS 211B **Advanced VB Programming**
(formerly CIS 14) **Module B:**
Database Programming 4.0 Units
This is an advanced programming course using VB.NET. The course focuses on developing desktop/Web applications using Microsoft's new ADO.NET technology. ADO.NET, based on XML, provides platform interoperability and scalable data access. Topics covered include the .NET Framework, ADO.NET, SQL, DataSet, XML, ADO.NET classes libraries, Web Services, etc. Three lecture, three laboratory hours per week. CSU (Prerequisites: CIS 210 and CIS 122, or equivalent) This course may be taken three times.

CIS 211C **Advanced VB Programming**
(formerly CIS 15) **Module C:**
Web Programming 4.0 Units
This is an advanced programming course using VB.NET. The course focuses on developing Web applications using Microsoft's ASP.NET technology. ASP.NET is a powerful server-based technology, designed to create dynamic Web sites and Web-based distributed applications, or corporate intranet applications. Topics covered include the .NET Framework, ASP.NET class libraries, Web forms, ASP.NET Server controls, ASP.NET Data Access. XML and Web Services, ASP.NET mobile controls, etc. Three lecture, three laboratory hours per week. CSU (Prerequisites: CIS 210 and CIS 205, or equivalent. Recommended: CIS 261A and 262B) This course may be taken three times.

CIS 240A **Windows 2000 Professional**
(formerly CIS 40) **4.0 Units**
An introduction to operating system design and operation using Windows NT. Topics include the design and philosophy of Windows NT, the differences between various Windows NT versions, user issues in Windows NT such as using NT's Graphical User Interface, and basic installation issues. Hands-on experience will be stressed. Three lecture, three laboratory hours per week. CSU (Prerequisite: CIS 101 or equivalent)

CIS 240B **Introduction to Microsoft**
(formerly CIS 41) **Windows 2000**
Server Administration 4.0 Units
Students will learn how to administer a Windows NT Server system on a network. Topics include: installation, user management, security, performance issues, domains, World Wide Web and related services, using NT and other network operation systems, network printing, the NT registry, backups, and setting up applications. Three lecture, three laboratory hours per week. CSU (Prerequisite: CIS 240A or equivalent)

CIS 252 **NetWare 6 Advanced**
(formerly CIS 26) **Administration 2.5 Units**
Learn the advanced skills involved in the administration of NetWare networks, including improving the performance of your network and server, managing Novell Directory Services (NDS) partitioning and replication, time synchronization strategies, and integrating NetWare 4 and NetWare 3. It is one of seven courses needed for CNE certification. Four lecture, three laboratory hours per week for nine weeks. CSU. (Prerequisite: CIS 72 or equivalent) This course may be taken four times.

CIS 261 **UNIX System Administration A**
(formerly CIS 34A) **2.0 Units**
UNIX system administrators are responsible for the operation of UNIX systems—the most common server platform on the Internet. Learn how to setup, manage, and maintain UNIX systems. Topics include: the role of the system administrator in an organization, UNIX variants, installation, booting and shutting down, backups, managing users. Two lecture, six laboratory hours per week for nine weeks. CSU. (Prerequisite: CIS 123 or equivalent)

CIS 262 **UNIX System Administration B**
(formerly CIS 34B) **2.0 Units**
This second UNIX system administration course covers advanced UNIX administration topics, including system security, setting up and managing Internet services such as Hypertext Transfer Protocol, File Transfer Protocol, and e-mail. Two lecture, six laboratory hours per week for nine weeks. CSU. (Prerequisite: CIS 261 and CIS 67)

CIS 280 **Fundamentals of Database**
(formerly CIS 22) **Management Systems 3.0 Units**
This course provides an in-depth knowledge of several different database management systems (DBMS) and an understanding of the basic relational, network, or hierarchical database structures which they use. Issues of privacy, security, protection, integrity, redundancy, distributed database concepts, data manipulation and query languages are covered. Students will learn how these concepts and facilities are implemented on common microcomputer-based DBMS products and will learn "hands-on" how these common features are implemented in a variety of such products. Two lecture, three laboratory hours per week. CSU. (No prerequisite)

CIS 281 **Database Management 4.0 Units**
(formerly CIS 43)
This course teaches students the concepts and implementation of a relational database model and object-oriented database model. This course covers the common languages used for data manipulation and information retrieval. The course is a practical approach to train students to analyze design and create databases for businesses and organizations. Three lecture, three laboratory hours per week. CSU (Prerequisite: CIS 280 or equivalent)

CIS 287A **Structured Query Language A**
(formerly CIS 45A) **2.0 Units**
First module of manipulating data and databases using Structured Query Language (SQL). Topics include concepts of databases and SQL, creating and using databases, and performing queries. Two lecture, six laboratory hours per week for nine weeks. CSU. (Prerequisite: CIS 280)

CIS 287B **Structured Query Language B**
(formerly CIS 45B) **2.0 Units**
The second course teaching the management of data and databases using Structured Query Language (SQL). Topics include: working with multiple tables, data normalization, views, indexes, dealing with data problems, and improving the performance of data manipulation. Two lecture, six laboratory hours per week for nine weeks. CSU. (Prerequisite: CIS 287A or equivalent)

CIS 288A **Oracle A** **2.0 Units**
(formerly CIS 47A)
An introduction to using the Oracle relational database management system. This is the first of two modules. Topics include the structure, nature, and use of databases, working with database projects, dealing with the various data types, and querying databases. Two lecture, six laboratory hours per week for nine weeks. CSU. (Prerequisite: CIS 280; Recommended: CIS 281)

CIS 288B **Oracle B** **2.0 Units**
(formerly CIS 47B)
This second course on Oracle continues instruction on the Oracle relational database management system. Topics include using database administration tools, querying databases, keeping data safe and secure, and using databases in group environments. Two lecture, six laboratory hours per week for nine weeks. CSU. (Prerequisite: CIS 288A or equivalent)

CIS 290A **MS SQL Server Administration A**
(formerly CIS 46A) **2.0 Units**
The MS SQL Server is Microsoft's database server software. This course teaches students how to administer the database system using MS SQL Server. This course discusses the basics of client/server database computing, the planning and installation of SQL Server, and normal operation of SQL Server. Two lecture, six laboratory hours per week for nine weeks. CSU. (Prerequisite: CIS 280. Recommended Preparation: CIS 281)

CIS 290B **MS SQL Server Administration B**
(formerly CIS 46B) **2.0 Units**
The MS SQL Server is Microsoft's database server software. This course is the continuation of CIS 290A. It will review the basic features of SQL Server administration and then focus on advanced topics of using SQL Server such as performance and tuning. Two lecture, six laboratory hours per week for nine weeks. CSU. (Prerequisite: CIS 290A)

COMPUTER INTEGRATED DESIGN AND GRAPHICS

CIDG 50 **Drafting Laboratory** **1.0-4.0 Units**
Drafting laboratory provides the additional time, equipment, and instruction necessary to develop problem solving, board, or AutoCAD skills at each individual's own pace. Fifty-four hours of laboratory required for each unit of credit. (No prerequisite) This course may be taken four times.

CIDG 64 **3ds max Architectural Design** **3.0 Units**
This course will cover advanced architectural walkthroughs and still renderings, developing architectural materials, advanced lighting and shadow casting, architectural camera matching, importing/exporting CAD models, adding people, trees and backgrounds will be covered. Course will prepare students to work in the architectural visualization field. Two lecture hours, three laboratory hours per week. (Prerequisite: CIDG 160.) This course may be taken four times.

CIDG 70 **Design for Graphic Artists** **3.0 Units**
This course covers the fundamental elements and principles of design. This course uses demonstration of the fundamentals through assignments and projects. Emphasis will be placed on developing techniques and vocabulary that will enable the student to problem solve and communicate ideas, concepts and solutions. Students will also learn how to properly critique design. Two lecture hours, three laboratory hours per week. (No prerequisite) This course may be taken four times.

CIDG 71 **Survey of Computer Graphics Studio** **4.0 Units**
This course will introduce students to industry standard software packages used in visual communications. Students will be instructed in the basic use of draw, paint/photo, layout, multimedia, web, digital video, and 3D. Topics covered include: Operating systems basics, drawing and painting on the computer, digitizing and editing sound and video and designing for interactivity. Three lecture, three laboratory hours per week. (No prerequisite) This course may be taken four times.

CIDG 72 **Computer Illustration** **3.0 Units**
This course covers the fundamental elements of illustration including history, design, color theory and appropriateness for specified use in the graphics industry. Students will create a series of illustrations using software techniques and skills developed through lectures, demonstration and assigned projects. Two lecture, three laboratory hours per week. (No prerequisite. Grade Option) This course may be taken four times.

CIDG 73 **Typography and Layout** **3.0 Units**
In this course students will learn how to use type as a graphic design element using industry standard techniques and tools. Students will strengthen their use of type as a design element through a variety of projects ranging from elementary exercise to intermediate presentations. In addition, students will examine the history of type and typesetting, modern methodologies, principles and aesthetics of good typographic design. Two lecture, three laboratory hours per week. (No prerequisite) This course may be taken four times.

CIDG 75 **Page Layout and Design** **3.0 Units**
This course introduces students to the computer as a page layout and design tool. Emphasis will be on using industry standard software to simplify the paste-up and pagination process when producing multi-page printed materials. Students will learn the terminology and techniques of page layout so that they may communicate within the industry. Class projects will develope the ability to work as a team to produce printed materials within time and technical constraints. Two lecture, three laboratory hours per week. (No prerequisite) This course may be taken four times.

CIDG 77 **Print Production Processes** **3.0 Units**
A study of the processes used in the printing industry. Emphasis will be placed on terminology, practices, and techniques for effective communication with printing professionals. Class projects will develop the students' ability to design within the necessary parameters. Two lecture, three laboratory hours per week. (No prerequisite) This course may be taken four times.

CIDG 79 **Multimedia and Web Design** **4.0 Units**

This course teaches graphic artist the tools and procedures for designing graphics for the computer screen. This course will give an overview of standard industry software used for creating multimedia presentation and web pages. This course does not focus on HTML or scripting language but is focused on the development of the visual content. Three lecture, three laboratory hours per week. (No prerequisite. Grade Option) This course may be taken four times.

CIDG 80 **Introduction to Geographical**
(formerly CIDG 51) **Information Systems** **3.0 Units**

An introduction to the fundamentals of Geographic Information Systems (GIS) including the history of automated mapping. Includes a brief introduction to basic cartographic principles, and in-depth review of the hardware and software used in GIS, and various applications of GIS technology in environmental science, business and government. Two lecture, three laboratory hours per week. (No prerequisite) This course may be taken four times.

CIDG 101 **Introduction to Drafting 3.0 Units**
(formerly CIDG 11)

This survey course will explore the basic techniques used in the drafting industry. The course will emphasize proper use of instruments, lettering, and line quality. Course includes work in the fields of architectural, mechanical, and computer aided drafting. Two hours lecture, three laboratory hours per week. CSU Offered Fall. (No prerequisite)

CIDG 103 **Blueprint Reading for**
(formerly CIDG 3) **Construction** **3.0 Units**

A course designed to develop skills necessary to interpret both residential and commercial construction drawings and blueprints. Three lecture hours per week. CSU Offered Fall. (No prerequisite)

CIDG 104 **Blueprint Reading for Industry**
(formerly CIDG 4) **3.0 Units**

A course designed to develop skills necessary to visualize and correctly interpret drawings and diagrams common to industry. Three lecture hours per week. CSU Offered Spring. (No prerequisite)

CIDG 108 **Architectural Presentation**
(formerly CIDG 8) **3.0 Units**

A study of two common architectural presentation techniques: model making and illustration. Students will develop skill in creating architectural models using paper, mat board, wood, plastic, and styrene foam. The illustration portion of this course will include work with perspectives in pencil, watercolor, and airbrush. Two lecture, three laboratory hours per week. CSU Offered Spring. (No prerequisite)

CIDG 110 **Two Dimensional AutoCAD**
(formerly CIDG 6A) **3.0 Units**

An introduction to the AutoCAD program including all necessary basic commands required for computer aided drafting. Students will master drawing setup, common draw, edit and viewing commands and plotting. Lectures and exercises are designed to provide a comprehensive knowledge of all basic computer drafting functions. Two lecture hours, three laboratory hours per week. CSU (No prerequisite) This course may be taken two times.

CIDG 120 **Solids Modeling and**
(formerly CIDG 6C) **Three Dimensional CADD**
3.0 Units

Solid Modeling and Three Dimensional CADD will introduce students to a new autodesk software package entitled INVENTOR. Students will understand the concepts involved in Parametric Modeling. Students will begin by constructing basic shapes and proceed to building intelligent solid models and create multi-view drawings. Assembly drawings, section views, auxiliary views, sheet metal drawings, and details will also be produced. Students will develop their drafting and computer skills through drawings and projects that emphasize teamwork and the design process. Students will also learn various hardware, software and peripheral components related to operating a CADD station. CSU (No prerequisite)

CIDG 138 **Cooperative Education**
(formerly CIDG 38)

See Cooperative Education listing (1-8 units). CSU

CIDG 148 **Special Topics**
(formerly CIDG 48)

See Special Topics listing (Variable units). CSU

CIDG 153 **Architectural Design** **3.0 Units**
(formerly CIDG 7)

This course will introduce the basic principles and methods of design as applied to architecture. The course will include a study of form, function, and efficiency of modern and historical architectural work, and hands-on design of residential and commercial structures. Two lecture, three laboratory hours per week. CSU (No prerequisite)

CIDG 160 **3ds max Fundamentals** **3.0 Units**
(formerly CIDG 26A)

Students will learn the basics of 3D modeling, how to create and apply realistic textures, lighting principles and techniques, camera types and their appropriate usage, and fundamental keyframing procedures. Other topics to be covered include storyboards, the traditional principles of animation, current industry trends and issues pertaining to rendering output for different mediums (film, video, Internet, etc.). Two lecture hours, three laboratory hours per week. CSU (No prerequisite) This course may be taken two times.

CIDG 210 **Advanced Two Dimensional**
(formerly CIDG 6B) **AutoCAD** **3.0 Units**

This course will explore the more advanced two-dimensional features of the AutoCAD program including entity filters, attributes, external reference files, paper space, and slide presentations. Projects include sectional description of compound shapes and developments. Two lecture hours, three laboratory hours per week. CSU (No prerequisite) This course may be taken two times.

CIDG 230 **Computer Aided Mapping I**
(formerly CIDG 25A) **3.0 Units**
Introduction to computer aided mapping techniques commonly used by government and private industry. Course includes the hands-on application of the computer to develop track, parcel and utility maps, zoning overlays, and site plans. Two lecture, three laboratory hours per week. CSU (Prerequisite: CIDG 110) This course may be taken two times.

CIDG 231 **Computer Aided Mapping II**
(formerly CIDG 25B) **3.0 Units**
This course will cover more advanced computer aided mapping techniques commonly used in the industry of civil engineering. Course is designed to develop skills necessary to create grading plans, roadway design, cross sections, and perform mathematical principles of slopes, grades and earthwork calculation. Two lecture, three laboratory hours per week. CSU (Prerequisite: CIDG 230) This course may be taken two times.

CIDG 250 **Architectural Computer Aided**
(formerly CIDG 53A) **Design I** **3.0 Units**
This course is designed to develop computer drafting skills necessary to produce residential and commercial working and presentation drawings. Design principles will be explored through the use of the Auto CAD/AutoDesk Architectural program. Two lecture hours, three laboratory hours per week. Offered Fall. CSU (Prerequisite: CIDG 110.)

CIDG 251 **Architectural Computer Aided**
(formerly CIDG 53B) **Design II** **3.0 Units**
This course will cover more advanced computer skills necessary to produce commercial and institutional working and presentation drawings. Basic and advanced design principles will be explored and implemented through the use of the Auto CAD program. Two lecture hours, three laboratory hours per week. Offered Spring. CSU (Prerequisite: CIDG 250) This course may be taken two times.

CIDG 260 **3ds max Advanced Modeling**
(formerly CIDG 26B) **and Materials** **3.0 Units**
Students will learn more advanced modeling features of 3ds max. Complex aspects of building materials and textures will be covered in depth. The course will culminate with students being introduced to the video game environment, having the opportunity create their own game level. The course will prepare students for work in the entertainment, commercial, and computer gaming industries. Two lecture hours, three laboratory hours per week. CSU (Prerequisite: CIDG 160.) This course may be taken two times.

CIDG 261 **3ds max Advanced** **3.0 Units**
(formerly CIDG 26C) **Animation and Effects**
Students will learn advanced animation techniques including animating with controllers, scripting and expressions, and creating visual effects with particles systems and space warps. Character animation will be addressed in depth. Both Character Studio and Bones will be utilized to build skeletal systems for both human characters and creatures. Fundamental compositing techniques will also be included in course curriculum. The course will prepare students for work in the entertainment, commercial, and computer gaming industries. Two lecture, three laboratory hours per week. CSU. (Prerequisite: CIDG 260) This course may be taken two times.

CIDG 280 **Geographical Information System I**
(formerly CIDG 27A) **(GIS)** **3.0 Units**
This course will cover methods of constructing a Geographical Information System (GIS) used by utilities and governmental agencies. Course is designed to develop skills necessary to prepare intelligent maps with spatial databases for parcel mapping, planning, zoning, and facilities mapping using AutoCad Map software. Two lecture hours, three laboratory hours per week. CSU (No prerequisite) This course may be taken four times.

CIDG 281 **Geographical Information**
(formerly CIDG 27B) **System II (GIS)** **3.0 Units**
This course will cover advanced methods of constructing a Geographical Information System (GIS) used by utilities and governmental agencies. This course is designed to develop skills necessary to prepare maps with spatial databases for creating buffer zones, slope analysis, neighborhood and zone analysis using mapping software. Two lecture hours, three laboratory hours per week. CSU (Prerequisite: CIDG 280) This course may be taken four times.

CONSTRUCTION AND MANUFACTURING TECHNOLOGY

CT 2 **Assistant Property Management**
(formerly CT 101) **1.0 Unit**
This class covers basic aspects of property management. Topics covered include code of ethics, inspections, filings, services posting of notices, collections, small claims court filings, evictions, securities and deposits, basic bookkeeping, and landlord tenant relations and rights. One lecture hour per week. This course will not apply to the Associate Degree. (No prerequisite. Grade Option)

CT 60A/B/C/D **Construction Laboratory**
1.0-4.0 Units
A laboratory class to provide additional skill development in the following areas: electrical wiring, finish carpentry, heating and air conditioning, framing, plumbing and concrete and masonry construction. Students will complete contract projects. Three laboratory hours per week for each unit of credit. Offered every semester. (No prerequisite)

CT 101 **Careers in Construction**
(formerly CT 1) **and Manufacturing** **1.5 Units**
This course is designed to provide the construction, manufacturing and drafting technology student with information and skills necessary to understand current job market needs and prepare a successful educational plan to obtain their desired goals. Students will develop an awareness of occupations and develop skills for seeking employment and completing job applications, resumes and interviews. One and one half lecture hours per week. CSU (No prerequisite.)

CT 103 Construction Management
(formerly CT 3) 3.0 Units
Principles of management as they specifically relate to the construction industry. This course explores the relationship and importance of proper planning, estimating, contracting, financing and building. Also covered are leadership and supervisory skills, employer/employee relationships and safety. Three lecture hours per week. CSU. Offered every 4th semester, Spring. (No prerequisite)

CT 104 Construction Law 3.0 Units
(formerly CT 4)
Principles of contracting, real estate and construction law. Course includes legal aspects of building codes, contractors' licenses, workmen's compensation, social security, state safety regulations and lien laws as they apply to the construction trade. Three lecture hours per week. CSU. Offered every 4th semester, Fall. (No prerequisite)

CT 105 Technical Sketching 3.0 Units
(formerly CT 5)
A course designed to develop sketching skills and introduce sketching techniques currently used in the industrial and architectural fields. Includes principles of oblique, isometric and perspective sketching, including shading and shadows. Two lecture, three laboratory hours per week. CSU. Offered Spring. (No prerequisite. Grade option)

CT 106 Materials of Construction
(formerly CT 6) 3.0 Units
A study of common materials used in residential and commercial construction. Course includes use and limitations of soil, paving materials, concrete, lumber, wall materials, roofing, insulation, siding, sheet material, electrical and plumbing materials and fixtures. This course will also explore the use of steel, aluminum and plastics in modern construction. Three lecture hours per week. CSU. Offered every 4th semester, Fall. (No prerequisite)

CT 107 Technical Mathematics 3.0 Units
(formerly CT 7)
A review of basic arithmetic, fractions, decimals and percentages. Introduction to basic algebra and trigonometry as they apply to the manufacturing and construction trades. Three lecture hours per week. Offered Fall. CSU (No prerequisite)

CT 108 Advanced Technical Math
(formerly CT 8) 3.0 Units
This course will include the practical applications of algebra, geometry and trigonometry. Class emphasis will be on the solution of technical problems commonly found in the fields of engineering, drafting, manufacturing and construction. Three lecture hours per week. CSU. Offered every 4th semester, Spring. (No prerequisite)

CT 109 Construction Financing 3.0 Units
(formerly CT 9)
This course introduces the basic issues and concepts of construction finance. Course examines the procedures for evaluation of all types of real estate credit and is designed to enable borrowers to utilize their resources to obtain financing. Three lecture hours per week. CSU. Offered every other Summer. (No prerequisite)

CT 110 Building Codes and Zoning
(formerly CT 10) 3.0 Units
Use of the Uniform Building Code and the various related state and local ordinances for plan checking and building compliance. Course includes a basic understanding of building codes and zoning as they apply to the construction and inspection of residential and light commercial buildings. Three lecture hours per week. CSU. Offered every 4th semester, Fall or Summer. (No prerequisite)

CT 111A Uniform Building Code I
(formerly CT 11A) 3.0 Units
The first of a two part, in-depth study of the contents and applications of the Uniform Building Code and California amendments; emphasis on residential construction. This course includes building classifications by occupancy and type, engineering regulations and design requirements applicable to plan checking and structural building inspection. Three lecture hours per week. CSU. Offered every 4th semester, Spring. (No prerequisite)

CT 111B Uniform Building Code II
(formerly CT 11B) 3.0 Units
An in-depth study of the Uniform Building Code and California amendments; emphasis on commercial applications. Course includes energy conservation standards, specialized commercial structures, public safety and standards for handicapped accessibility. Three lecture hours per week. CSU. Offered every 4th semester, Fall. (No prerequisite)

CT 112 Uniform Mechanical Code
(formerly CT 12) 3.0 Units
This class is an in-depth study of the contents and applications of the Uniform Mechanical Code. Course covers the use of this code for plan checks and inspection of residential and commercial structures. Three lecture hours per week. CSU. Offered every 4th semester, Spring. (No prerequisite)

CT 113 Uniform Plumbing Code
(formerly CT 13) 3.0 Units
This class is an in-depth study of the contents and applications of the Uniform Plumbing Code. Course includes underground and above ground water, gas and air pipe installations for residential and commercial structures. Three lecture hours per week. CSU. Offered every 4th semester, Spring. (No prerequisite)

CT 114 National Electrical Code 3.0 Units
(formerly CT 14)
This class is an in-depth study of the contents and applications of the National Electrical Code. Course covers the use of the code for plan checks and inspection of residential and commercial structures. Plan reading, electrical theory, wiring methods and installation of electrical components and fixtures are also included. Three lecture hours per week. CSU. Offered every 4th semester, Spring. (No prerequisite)

CT 115 Technical Office Procedures and
(formerly CT 15) Field Inspection 3.0 Units
Office organization, procedures and necessary paperwork pertinent to building and safety office management and inspection. Field inspection for completed building, zoning, health and safety ordinance applications. Course includes several field trips. Three lecture hours per week. CSU. Offered every 4th semester, Spring. (No prerequisite.)

CT 116 Construction Safety 2.0 Units
(formerly CT 16)
An overview of industrial safety procedures as they relate to the construction job site. This course includes a study of common OSHA regulations and procedures. Four lecture hours per week for nine weeks. CSU. Offered every 4th semester, Fall. (No prerequisite)

CT 119 Load Calculations and Circuit Design 3.0 Units
This course is designed to develop the skills necessary to visualize and correctly interpret drawings, diagrams, blueprints, and schematics common to the electrical industry. Course includes branch and feeder circuit design and load calculations as they apply to residential, multi-family, commercial and industrial applications. Two lecture, three laboratory hours per week. CSU (No prerequisite) This course may be taken four times.

CT 120A Electrical Wiring 4.0 Units
(formerly CT 20A)
Theory, procedure and techniques for electrical wiring of residential and light commercial construction. Topic areas include blueprint reading, power panels, wire sizing, conduit bending and installation, pulling and installation of wires, lighting and plug circuitry, designated circuits, underground and swimming pool wiring. Two lecture, six laboratory hours per week. CSU. Offered every 4th semester, Fall. (No prerequisite)

CT 120B Commercial Wiring 4.0 Units
(formerly CT 20B)
Learn the techniques necessary for commercial wiring. Size conductors for motor, intermittent and continuous loads. Wire for single and three phase services. Course includes wiring techniques common to commercial applications, running circuits with flex, electrical metallic tubing, rigid and liquid tight conduits and use of common conductors, cables, boxes and raceways. Also included are transformers and motor load calculations, starters and over current protection devices. Two lecture, six laboratory hours per week. CSU (Prerequisite: CT 120A) This class may be taken three times.

CT 121 Finish Carpentry 4.0 Units
(formerly CT 21)
Course covers use of hand and machine woodworking tools and techniques common to finish carpentry and cabinet making. Students will develop skill in safe and efficient operation of common tools, layout, cutting, assembly and finish of woodworking projects. Two lecture, six laboratory hours per week. CSU. Offered every 4th semester, Spring. (No prerequisite)

CT 122A Heating and Air Conditioning
(formerly CT 22A) 4.0 Units
This course provides instruction for layout, installation and repair of common residential and light commercial heating and air conditioning systems. Heating and air conditioning theory and energy calculations will be treated in depth. Course also includes use of solar energy for heating and cooling. Two lecture, six laboratory hours per week. CSU. Offered Spring. (No prerequisite) See cross listing for HVAC 122A.

CT 122B Commercial Refrigeration
(formerly CT 22B) 4.0 Units
Explore the more complex commercial and industrial uses of refrigeration, heating and air conditioning. Course covers installation and repair of the most common commercial refrigeration systems found in the food industry and industrial and manufacturing environments. Also included are computer controlled and central plant environmental systems, high and low pressure chillers, cooling towers and air handlers. Two lecture, six laboratory hours per week. CSU (Prerequisite: CT 122A) See cross listing for HVAC 122B. This class may be taken three times.

CT 122C Heat Pump Fundamentals and Controls 4.0 Units
This course explores electrical and mechanical circuitry fundamentals, along with theory, operation and application of heat pump systems used in residential and light commercial heating installations including the heat pump refrigeration cycle, reversing valves, defrost methods of supplemental heat, balance point, air flow, and heat pump thermostats. Three lecture, three laboratory hours per week. CSU (No prerequisite) See cross listing for HVAC 122C. This class may be taken four times.

CT 123 Surveying 4.0 Units
(formerly CT 23)
A course designed to explore the principles and applications of surveying. Students will develop skill in the operation of surveying equipment used for measuring, leveling and locating of points. Course includes surveying techniques common to building and highway construction, general land surveying, hydrographic surveys and photogrammetric mapping. Two lecture, six laboratory hours per week. CSU. Offered every 4th semester, Spring. (No prerequisite.)

CT 124 Plumbing 4.0 Units
(formerly CT 24)
This course provides instruction for layout and installation of residential and light commercial plumbing systems and fixtures. Rough and finish stages of plumbing will be introduced and students will become familiar with reading plans and calculating and constructing the plumbing system. Two lecture, six laboratory hours per week. CSU. Offered every 4th semester, Fall. (No prerequisite)

CT 125 Concrete and Masonry
(formerly CT 25) Construction 4.0 Units
Course covers use of hand and machine tools and techniques common to residential and light commercial concrete and masonry construction. Plan reading, layout, forming, pouring of concrete, tilt-up and various finishing techniques will be introduced. Course also includes construction with brick, stone, concrete block, and other masonry shapes. Two lecture, six laboratory hours per week. CSU. Offered Fall. (No prerequisite)

CT 126 Exploring Brick and Block
(formerly CT 26) 1.5 Units
This course includes techniques used for construction of brick and block walls, decorative brick patios, planter edging and concrete slabs, curbs and walks. Class covers information on concrete and mortar mixes and proper forming, pouring and finishing of concrete slab and wall footings. Two lecture, three laboratory hours per week for nine weeks. CSU (No prerequisite) This course may be taken for a total of four times.

CT 127 Framing 4.0 Units
(formerly CT 27)
Course covers use of hand and machine tools and techniques common to rough carpentry and residential and light commercial framing. Students will develop skill in safe and efficient operation of common tools, layout techniques, cutting and assembly of wall, ceiling and roof framing, and installing sheathing and insulation. Two lecture, six laboratory hours per week. CSU. Offered every 4th semester, Fall. (No prerequisite)

CT 129 Independent Study
See Independent Study listing (1-4 units).

CT 130 Residential Remodeling 3.0 Units
(formerly CT 29)
Learn the skills and techniques necessary for remodeling of residential structures. Course includes project planning, estimation and layout. Gain experience in framing, plumbing, electrical drywall, floor and wall finishing and concrete with projects that include patio and deck construction, room additions and kitchen and bathroom remodeling. Two lecture, three laboratory hours per week. CSU (No prerequisite) This course may be taken for a total of four times.

CT 131 Microcomputers in Construction
(formerly CT 30) 4.0 Units
This course is designed to introduce the student to the potentials of the computer as it directly applies to the construction industry. Course includes instruction and practice in basic DOS, word processing, spread sheets, estimation programs and introductory computer-aided drafting. Three lecture, three laboratory hours per week. CSU. Offered Fall. (No prerequisite)

CT 132 Construction Estimation 3.0 Units
(formerly CT 32)
Methods of estimation including material and quantity take-offs and analysis. Course also includes estimation of material, labor and overhead costs, subcontractors' bids and common bidding practice for all aspects of residential and light commercial construction. Three lecture hours per week. CSU. Offered every 4th semester, Fall. (No prerequisite.)

CT 133 Precision Estimation 3.0 Units
(formerly CT 33)
Learn how to speed up your estimating process and increase your accuracy using today's leading construction estimating software. Timberline Precision Estimation Plus allows take-off using quick, single and assembly methods. Course includes development and maintenance of your database. Create your own crews, add-ons, formulas and assemblies to meet your particular estimating needs. Two lecture hours, plus additional two hours weekly by arrangement. CSU (No prerequisite.) This course may be taken for a total of three times.

CT 136 HVAC Circuits and Controls 4.0 Units
This course explores electrical fundamentals common to the heating, ventilation, air conditioning and refrigeration fields. Course includes electrical theory, control circuitry and electronics, system supply circuitry and alternating and direct current troubleshooting. Three lecture, three laboratory hours per week. CSU. (No prerequisite) See cross listing for HVAC 136. This course may be taken four times.

CT 137 Sheet Metal Fabrication 3.0 Units
This course will introduce the student to the fundamental elements, methods and principals of sheet metal design, fabrication and installation. Course includes air handling systems, gutters, flashings, coping, tanks and exhaust systems. Students will gain valuable hands-on skills in the proper use of metal working hand and machine tools through the completion of multiple projects. Two lecture, three laboratory hours per week. CSU. (No prerequisite) This course may be taken four times.

CT 138 Cooperative Education
(formerly CT 38)
See Cooperative Education listing (1-8 units). CSU

CT 140 Construction Internship 4.0 Units
(formerly CT 40)
Gain valuable hands-on construction skills by participating in the creation and operation of a small construction business. Students will research the market, design the project, estimate the costs, develop a business plan, secure a construction loan, prepare a schedule and analyze the projects progress and perform customer service and sales. Four lecture hours per week. CSU. (No prerequisite. Grade Option) This course may be taken four times.

CT 141 Construction Internship
(formerly CT 41) Laboratory 2.0-12.0 Units
This course is the laboratory component for CT 40 Construction Internship. Students will research, develop, construct and market a construction project using computers and common construction tools and equipment. Six hours weekly by arrangement per unit. CSU. (No prerequisite. Grade Option) This course may be taken four times.

CT 142 Renewable Energy 3.0 Units
This course explores methods of generation and use of renewable energy. Topics include renewable fuel based generators, fuel cells, wave and tidal generation, geothermal, wind turbines, photovoltaic, barometric pressure, and hydroelectric generation. Course also covers active and passive solar heating and cooling, alternate fuel vehicles and electric transportation. Three lecture hours per week. CSU. (No prerequisite. Grade Option) This course may be taken four times.

CT 143A/B/C/D Renewable Energy Laboratory 2.0-5.0 Units
This laboratory course explores methods of generation and use of renewable energy through actual projects. Additional projects include the creation of an active and passive solar heating and cooling system and exploration of alternate fueled and electric vehicles. One lecture, three-twelve lab hours per week. CSU. (No prerequisite. Corequisite: CT 142, Renewable Energy. Grade Option)

CT 148 Special Topics
(formerly CT 48)
See Special Topics listing (Variable units). CSU

CTMF 120A **Woodworking Tools and Equipment** **2.0 Units**

This course is designed to give the woodworking student an in-depth knowledge of common woodworking tools and equipment. Students will explore the safety, use and maintenance of saws, lathes, routers, planers, jointers, sanders and common power and hand tools used for basic woodworking projects. Two lecture hours per week. CSU (No prerequisite) This course may be taken three times.

CTMF 120B **Advanced Woodworking Tools and Equipment** **2.0 Units**

This course is designed to give the woodworking student an in-depth knowledge of the more advanced woodworking tools, equipment and operations. Students will explore the safety, setup, use and maintenance of saws, lathes, routers, planers, jointers, sanders and common power and hand tools as used in advanced woodworking projects. Course also includes extensive coverage of tool sharpening. Two lecture hours per week. CSU (Prerequisite: CTMF 120A.) This course may be taken four times.

CTMF 121A **Woodworking** **3.0 Units**
(formerly CTMF 126A)

This is a beginning woodworking class. Topics covered include safety, tools, the composition of wood and its characteristics, beginning design and sketching, project planning, measuring and cutting, use of large and small power tools, and general woodworking techniques. Students will be expected to complete multiple projects as part of their grade. Two lecture, three laboratory hours per week. CSU (No prerequisite. Corequisite CTMF 120A. Grade option.) This course may be taken two times.

CTMF 121B **Advanced Woodworking** **3.0 Units**
(formerly CTMF 126B)

This is an advanced course in fine woodworking using techniques common to custom wood products, furniture making and wood art. Learn the artisan's techniques for wood joining, carving, turning and finishing by completing various wood projects. Course includes a study of common woods, tools and methods for shaping and finishing. Two lecture, three laboratory hours per week. CSU (Prerequisite: CTMF 121A) This course may be taken for a total of four times.

CTMF 122A/B/C/D **Advanced Wood Topics** **3.0 Units**

Come develop your skills and learn the methods and procedures necessary for completing an advanced woodworking project. One specific advanced woodworking project is selected as the focus for each semester. Check with the Construction Technology Department for the current project. Course may also include specialized techniques of turning, marquetry, parquetry, carving and intarsia. Two lecture, three laboratory hours per week. CSU (Prerequisite: CTMF 121A Basic Woodworking. Grade option.) This course may be taken four times.

CTMF 127 **Production Woodworking**
(formerly CTMANF 27) **3.0 Units**

This course covers techniques common to production woodworking and includes design and construction of custom jigs, fixtures and templates for drill presses, routers, saws and lathes. Students will gain experience with computer numerical controlled routers, surfacing sanders, airbag sanders and production fastening techniques and wood finishes while creating several commercial woodworking projects. Two lecture, three laboratory hours per week. CSU (Prerequisite: CTMF 126A)

CTMF 129A **Woodturning** **3.0 Units**

This introductory course will provide the woodworking student with information and skills necessary to successfully design, turn and finish typical woodturning projects. Course includes lathe, spindle, faceplate and drive chuck turning. Students will complete a variety of projects that can include pens and pencils, games and toy pieces, decorations, lamps, spindles, bowls and boxes. Two lecture, three laboratory hours per week. CSU (No prerequisite. Corequisite CTMF 120A.) This course may be taken four times.

CTMF 129B **Advanced Woodturning** **3.0 Units**

This advanced woodturning course includes green, seasoned and laminated wood and acrylic projects. Students will explore turning of large bowls and platters, maintaining natural edges, turning burls, proper box and lid construction, off center turning, chatter finishes and construction of turning fixtures, centers and drives. Two lecture, three laboratory hours per week. CSU (Prerequisite: CTMF 129A, Woodturning. Grade option.) This course may be taken four times.

CTMF 130A **Mechanical Desktop** **3.0 Units**
(formerly CTMANF 30A)

Develop your skill in creating accurate three-dimensional parametric models using Mechanical Desktop. Explore the exciting features of this program which includes parametric modeling, surfacing, model analysis, interference checking and assemblies. Learn how to export surface and design information to computer controlled mills and routers. This is an introductory class in Mechanical Desktop. Two lecture hours, plus additional two hours weekly by arrangement. CSU (Prerequisite: CIDG 110.) This course may be taken for a total of three times.

CTMF 130B **Mechanical Desktop Advanced**
(formerly CTMANF 30B) **3.0 Units**

This advanced course in Mechanical Desktop includes a focused exploration of detailed models and complex assembly models. Students will explore the full features of the Mechanical Desktop package including fasteners, shaft and gear generation and creation of motion based, skin and derived surfaces. Both localized and externalized assemblies will be created and analyzed for interference and engineering characteristics. Two lecture hours, plus additional two hours weekly by arrangement. CSU (Prerequisite: CTMF 130A)

CTMF 131A **Mastercam** **3.0 Units**
(formerly CTMANF 31A)

Learn the techniques of numerical controlled programming using Mastercam software. Generate three-dimensional models and learn how to create parts, molds, and fixtures using integrated solids, surfaces and wireframes. Unite the software with the machine and create milled or routed three-dimensional parts. Two lecture, plus additional two hours weekly by arrangement. CSU (No prerequisite.)

CTMF 131B **Mastercam Advanced** **3.0 Units**
(formerly CTMANF 31B)
This advanced course includes an in-depth study of the more complex features of Mastercam. Students will create geometry and toolpaths for complex three-dimensional and surface models for mills, routers, lathes and engraving machines. Programming of multi-axis and mill-turn machines will be explored. Three lecture, two weekly hours by arrangement. CSU (Prerequisite: CTMF 131A.) This course may be taken three times.

CTMF 140 **Manufacturing Internship**
(formerly CTMANF 40) **4.0 Units**
This course will provide the construction, drafting and manufacturing technology student with hands-on job skills and experience common to the manufacturing industry. Four lecture hours per week. CSU (No prerequisite. Grade Option.) This course may be taken three times.

CTMF 141 **Manufacturing Internship**
(formerly CTMANF 41) **Laboratory** **2.0-12.0 Units**
This course is the laboratory component for CTMF 140 Manufacturing Internship. Students will research, design, manufacture and market a project using computers and common manufacturing equipment. CTMF 140 must be taken concurrently. Six weekly hours by arrangement per unit. CSU (No prerequisite. Grade Option.) This course may be taken three times.

CTMT 120 **Residential Maintenance**
(formerly CTMANT 20) **and Repair** **4.0 Units**
This class covers all major aspects of preventative maintenance and repair for residential and light commercial buildings. Topics covered include but are not limited to repairing roofing, plumbing, electrical framing, insulation, drywall, painting, concrete, flooring, safety, tools, heating and cooling, etc. as they apply to the maintenance and repair industry. Three lecture, three laboratory hours per week. CSU (No prerequisite. Grade Option)

CTMT 121 **Plumbing Repair** **3.0 Units**
(formerly CTMANT 21)
This class covers most aspects of residential and light commercial plumbing repair. Topics covered include but are not limited to plumbing tools, water supply systems, drainage systems, drainage problems, faucets and valves, piping, soldering and threading, water heating systems, plumbing fixtures, pricing, billing, and inventory management, as they apply to the plumbing repair business. Two lecture, three laboratory hours per week. CSU (No prerequisite. Grade Option)

CTMT 122 **Electrical Repair** **3.0 Units**
(formerly CTMANT 22)
This class covers most aspects of residential and light commercial electrical repair. Topics covered included but are not limited to electrical tools, electrical theory, wiring systems electrical materials, electrical services, troubleshooting electric circuits, low voltage circuits, appliances and motors, and mathematics for electricians. Two lecture, three laboratory hours per week. CSU (No prerequisite. Grade Option)

CTMT 123 **Custodial Maintenance** **4.0 Units**
(formerly CTMANT 23)
This course covers the major aspects of custodial and janitorial work. Course includes general cleaning techniques, cleaning equipment use and maintenance, cleaning chemicals, window care, maintaining hard floors, carpet and upholstery care, chemical hazards, Cal OSHA regulations, and handling of infectious waste as they apply to the janitorial industry. Three lecture, three laboratory hours per week. CSU (No prerequisite. Grade Option)

CTMT 129 **Small Engines and**
(formerly CTMANT 29) **Light Vehicles** **3.0 Units**
This class covers the fundamentals of small internal combustion engines, and their uses in light vehicles. Topics covered will include but are not limited to theory of small internal combustion engines, service, troubleshooting, repair, small engine applications, and light vehicle design. Two lecture, three laboratory hours per week. CSU (No prerequisite. Grade Option) This course may be taken three times.

CTPW 111 **Introduction to Public Works**
(formerly CTPBWK 11) **3.0 Units**
Introduction to techniques, materials and equipment used in Public Works maintenance and construction. Meets the standards of the American Public Works Association, Street Superintendents' Association and Inspectors' Association. Three lecture hours per week. CSU. Offered every 3rd semester. (No prerequisite)

CTPW 112 **Plan Reading for Public Works**
(formerly CTPBWK 12) **3.0 Units**
Reading and interpreting plans related to public works, water, storm drain, and sewage facility projects. Basic survey methods, symbols, mathematical conversions, and determination of slope and grade. Three hours lecture per week. CSU. Offered every 4th semester, Fall. (No prerequisite)

CTPW 113 **Public Works Inspection 3.0 Units**
(formerly CTPBWK 13)
General public works inspection techniques. Includes Portland Cement and asphalt concretes, soils, base and subgrade, safety, contracts, and specifications. Responsibilities of the contractor, engineer, agency, and inspector. Three hours lecture per week. CSU. Offered every 4th semester, Spring. (No prerequisite)

CTPW 114 **Public Works Administration**
(formerly CTPBWK 14) **3.0 Units**
An introduction to the organizational concepts used by the Public Works department. Includes typical organization, management concepts, political considerations, planning, budget management and public relations. Three hours lecture per week. CSU. Offered every 3rd semester. (No prerequisite.)

CTPW 115 **Street and Highway Construction**
(formerly CTPBWK 15) **3.0 Units**
Equipment, materials, and methods employed in the construction, inspection, and maintenance of streets and highways. Includes Portland Cement concrete; surface drainage; traffic signs; safety and safe practices, highway design; laws, codes and ordinances; management principles; budget preparations; equipment maintenance records; underground utilities; surveying and staking. Three hours of lecture per week. CSU. Offered every 4th semester, Fall. (No prerequisite)

CTPW 116A **Water Distribution Systems I**
(formerly CTPBWK 16A) **3.0 Units**
Water distribution systems operation. Fundamentals of water production, quality, and system operation. Includes piping, services, pumps, reservoirs, mathematics, and basic hydraulics. Preparation for Grades I and II Water Distribution Operator Certification. Three lecture hours per week. CSU. Offered every 4th semester, Fall. (No prerequisite)

CTPW 117 **Portland Cement Concrete**
(formerly CTPBWK 17) **3.0 Units**
Portland Cement concrete design and uses. Covers transporting, placing, curing, and testing Portland Cement concrete. Applications and construction methods employed. Three lecture hours per week. CSU. Offered every 4th semester, Spring. (No prerequisite)

CTPW 118 **Solid Waste Management**
(formerly CTPBWK 18) **3.0 Units**
Methods used in collection of solid waste materials. Includes equipment, scheduling, and customer relations. Ultimate disposal of solid waste matter as well as projections concerning future collection and disposal operations. Special emphasis on municipal resource recovery, salvaging, and recycling. Three lecture hours per week. CSU. Offered every 4th semester, Spring. (No prerequisite)

CTPW 119 **Wastewater Management**
(formerly CTPBWK 19) **3.0 Units**
Comprehensive examination of wastewater management, impact of waste contributions from home and industry, effects of wastewater treatment, water reclamation and by-product disposal. Three lecture hours per week. CSU. Offered every 4th semester, Fall. (No prerequisite)

DEVELOPMENTAL STUDIES

DVST 1 **Language Analysis Development**
(formerly DEV 60A) **3.0 Units**
This course is designed for students with language-based learning disabilities. It includes both perceptual and neurological deficit stimulation therapy as well as a multisensory, direct instructional, cognitive approach to analyzing the internal components and the rules that govern both the decoding and encoding processes involved in reading and spelling. Many of the activities will enhance a student's reasoning ability and comprehension of both the written and spoken word. This course will not apply to the Associate Degree. Two lecture hours, additional two hours weekly by arrangement. (No prerequisite) This course may be taken four times.

DVST 2 **Language Analysis Development**
(formerly DEV 60B) **3.0 Units**
This course is specifically designed for students with language-based learning disabilities. It includes both perceptual and neurological deficit stimulation therapy as well as a multisensory, direct instructional, cognitive approach to analyzing the internal components and the rules that govern both the decoding and encoding processes involved in reading and spelling. Many of the activities will enhance a student's reasoning ability and comprehension of both the written and spoken word. This course will not apply to the Associate Degree. Two hours lecture, additional two hours weekly by arrangement. (No prerequisite) This course may be taken four times.

DVST 3 **Language Analysis Development**
(formerly DEV 60C) **3.0 Units**
This course is specifically designed for students with language-based learning disabilities. Relational patterns within sentences and paragraphs are analyzed and coupled with reasoning skills in order to enhance verbal comprehension of both written and spoken language. Specific language activities designed to stimulate auditory and visual perception and memory are included. A structured, interactive, multisensory approach is used. This course will not apply to the Associate Degree. Two lecture hours, additional two hours weekly by arrangement. (Prerequisite: GUID 16) This course may be taken four times.

DVST 4 **Mathematical Reasoning 3.0 Units**
(formerly DEV 60D)
This course is designed to stimulate the visual, auditory and cognitive deficit areas which may interfere with student's ability to problem solve with mathematical vocabulary and concepts and internalize basic math facts. An integrative, interactive, highly structured approach is used in this course. This course will not apply to the Associate Degree. Two lecture hours, additional two hours weekly by arrangement. Credit/No Credit (Prerequisite: GUID 16) This course may be taken four times.

ECONOMICS

ECON 101 **Principles of Economics: Macro**
(formerly ECON 1A) **(CAN ECON 2)** **3.0 Units**
This course is an introduction to economic theory and analysis, with emphasis on monetary and fiscal policy. The student will study and become familiar with gross domestic product, business cycles, inflation, recession, the Keysian model on unemployment, and money and the Federal Reserve System. The desired outcome of this course is for students to become knowledgeable in the area of general economic theory and to be able to relate to everyday decisions made by the government and individuals when dealing with scarce economic resources, and to serve as a foundation for future study in economics. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite)

ECON 102 **Principles of Economics: Micro**
(formerly ECON 1B) **(CAN ECON 4)** **3.0 Units**
Introduction to economic theory and analysis with emphasis on basic concepts, the economics of business organizations and resource allocation, domestic, international, and world economics. Emphasizes the micro-economic approach. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

ECON 118 **Investments** **3.0 Units**
(formerly ECON 18)
Theory and practice of successful investing. Various types of investments surveyed with emphasis on the associated risks and the returns to be expected. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

ECON 128 **Special Topics**
(formerly ECON 28)
See Special Topics listing (Variable units). CSU

ECON 129 **Independent Study**
(formerly ECON 29)
See Independent Study listing (1-3 units). CSU

EDUCATION

EDUC 50 **Tutoring Principles and Practices 2.0 Units**
This course covers roles, rights, responsibilities and practice of tutoring using the one-on-one or small group model. Tutors will demonstrate knowledge of tutoring theory by producing a video and a written self-critique of a tutorial session. The primary goal is to make the tutee independent, so the focus is on process, not on providing answers. Eighteen lecture, 48 laboratory hours total for thirteen weeks. (No prerequisite. Credit/No Credit)

EDUC 52 **Educating Today's Learner**
(formerly EDUC 2) **3.0 Units**
This course is designed to advance the quality and effectiveness of teaching by expanding and updating professional educators' understanding of constructivist pedagogy and the sociology/psychology of learning within technology settings, particularly in comparison/contrast to the "new learners" of the Net generation(s). Three lecture hours per week. (No prerequisite)

EDUC 101 **Introduction to Teaching 3.0 Units**
(formerly EDUC 1)
An introduction to teaching as a career and to education as a social institution. The crucial issues facing education in contemporary American society are considered in the framework of the democratic way of life. Special attention is given to issues in educational technology, as well as to the goals, curriculum, and methods of elementary education. The opportunities, challenges, and requirements of teaching as a profession are presented. This course is not designed to be a course in professional education. Three lecture hours per week. CSU. (No prerequisite)

EDUC 138 **Cooperative Education**
(formerly EDUC 38)
See Cooperative Education (1 - 8 units). CSU

EDUCATIONAL TECHNOLOGY

ETEC 51 **Introduction to Educational**
(formerly ETEC 30) **Technology** **3.0 Units**
This course examines technology from three integrated perspectives: technology as a tool, a medium, and a setting for learning. Students will extensively use Internet tools as they survey a variety of strategies for integrating technology into the classroom. The course will also instruct students on the basic methods and strategies for creating Web-based learning activities. Students will have the opportunity to create projects relevant to their educational setting. Three lecture hours per week. (No prerequisite)

ETEC 60 **Introduction to Online Teaching and learning 2.0 Units**
A course for education students or current teachers to acquire the skills needed to effectively create and utilize a virtual classroom on the internet, with particular emphasis on computer-mediated communication, cyber-scaffolding, construction and facilitation of learning activities, building online learning communities, managing virtual classrooms, performing formative and summative web-based assessments, and online instructional design. The overall focus of the course will be understanding best practices in online teaching and applicable theory in online learning. Three lecture hours. Three laboratory hours per week. (No prerequisite)

ETEC 70 **Leadership in Educational**
(formerly ETEC 40) **Technology** **3.0 Units**
This course defines and details constructivist leadership, framing that leadership in terms of educational technology. Students will apply these concepts to their own settings through introductory understandings of knowledge management and virtual learning. Students will have the opportunity to formulate technology rollout and training plans specific to their educational organizations or fields. Three lecture hours per week. (No prerequisite)

ETEC 90 **Educational Technology**
(formerly ETEC 50) **Internship** **2.0 Units**
This course provides students with valuable experience in educational settings by partnering them with teachers or other professional educators to assess needs, collaborate on possible solutions, support implementations, and evaluate outcomes. Students will also benefit from working within a community of practice during their internships. Two lecture hours, six laboratory hours per week for nine weeks. (No prerequisite, Credit/No credit)

ETEC 106 **Introduction to Computer**
(formerly ETEC 20) **Technology for Educators 4.0 Units**
A survey course which provides an overview of computer technology for multi-disciplinary majors, but with emphasis on its role in educational settings. The course provides instruction in a variety of topics supported by hands-on laboratory work with operating systems, word processing, spreadsheets, databases, desktop publishing, programming, networks, and the Internet. Application and evaluation of computer technology in learning environments serves as the overall framework. See cross listing for CIS 106. Three lecture, three laboratory hours per week. CSU (No prerequisite)

ETEC 107 **Introduction to the Internet**
(formerly ETEC 21) **for Educators** **2.0 Units**
A course for education students or current teachers to acquire the skills needed to effectively utilize the Internet in the classroom. Emphasis will be placed on computer-mediated communication with the World Wide Web. Students will become well versed in the use of Web browsers, FTP, newsgroups/ asynchronous discussion, e-mail, and chat synchronous discussion. See cross listing for CIS 107. Three lecture, three laboratory hours per week. CSU (No prerequisite)

ELECTRONICS AND COMPUTER TECHNOLOGY

ELCT 5 **CET Exam Preparation** **2.0 Units**
(formerly ELCT 105)
Covers all electronic circuits required by the Electronics Technicians Assn. International for successful completion of the Certified Electronic Technician examination. Includes DC and AC circuits, filters, thyristors, transistors, diodes, power supplies, and voltage regulators; also covers test equipment used in electronics including voltmeters, ammeters, oscilloscope frequency meters, and VTVM's's. This course will not apply to the Associate Degree. Four lecture hours per week for eight weeks. Offered Spring. (No prerequisite)

ELCT 6 **FCC License Preparation 2.0 Units**
(formerly ELCT 106)
Designed for students enrolled in Electronics Communications Systems. Topics include Element 3 Examination (General Radio Telephone) - provisions of laws, treaties and regulations, radio operating procedures and practices; technical matters including fundamentals of electronics technology and maintenance techniques. This course will not apply to the Associate Degree. Four lecture hours per week for eight weeks. Offered Spring. (No prerequisite)

ELCT 7 **A+ Certification Examination**
(formerly ELCT 107) **Preparation** **2.0 Units**
The A+ Certification Examination Preparation course is designed to help the student pass the A+ Certification Test as quickly and easily as possible. The course consists of three main elements: (1) a test-simulation-and-review software program that provides practice tests with realistic questions, (2) an A+ Certification Program "Student Guide," and (3) access to a 5800-page reference library consisting of ten textbooks. This course will not apply to the Associate Degree. Two lecture, six laboratory hours per week for nine weeks. (No prerequisite) This course may be taken four times.

ELCT 50 **A+ Operating Systems Technologies** **4.0 Units**
This course is designed to prepare students to take the A+ Operating Systems Technologies Examination. Topics will include coverage of operating systems fundamentals for DOS, Windows 9X and Windows 2000; knowledge of installing, configuring and upgrading Windows 9X and Windows 2000; and how to diagnose and troubleshoot common problems relating to Windows 9X and Windows 2000. This course will cover knowledge of network capabilities of Windows and how to connect to networks on the client side. Three lecture, three laboratory hours per week. (No prerequisite. Grade Option) This course may be taken four times.

ELCT 51 **C++ Programming for Electronics and Computer Technology** **4.0 Units**
This course is designed to introduce students to C++ programming for scientific applications in engineering technology through lecture and lab. Topics will include writing C++ routines for analysis of electrical and electronics circuits, real time data acquisition and analysis, modeling of electronics components, interfacing with LabView for data collection and processing, interfacing with MathCAD and Workbench. Three lecture, three laboratory hours per week. (No prerequisite. Grade Option) This course may be taken four times.

ELCT 53 **Electronic Communication Principles** **4.0 Units**
Study of all relevant aspects of modern communication principles. Topics include amplitude modulation transmission and reception, single-sideband communications, frequency modulation transmission and reception, television, and communications techniques. Three lecture, three laboratory hours per week. Offered Fall. (No prerequisite)

ELCT 54 **Electronic Communication Systems** **4.0 Units**
A study of modern communication systems. Topics include digital and data communications, transmission lines, wave propagation, antennas, wave guides and radar, microwave and lasers, and fiber optics. Three lecture, three laboratory hours per week. Offered Spring. (No prerequisite)

ELCT 57 **Technical Mathematics For Electronics I** **3.0 Units**
This course is designed to provide a basis for a clear mathematical understanding of the principles of DC electricity and electronics and their analysis. Covered are algebra, equations, power of 10, units and dimensions, special products and factoring, algebraic fractions, fractional equations, graphs, simultaneous equations, determinants and matrices, exponents and radicals, and quadratic equations. Three lecture hours per week. Offered Fall, Spring. (No prerequisite)

ELCT 58 **Technical Mathematics For Electronics II** **3.0 Units**
This course is designed to provide a basis for a clear mathematical understanding of the principles of AC electricity and electronics and their analysis. Covered are inequalities, series, angles, trig functions, solution of right triangles, trig identities and equations, plane vectors, periodic functions, phasor algebra, and logarithms. Three lecture hours per week. Offered Spring, Summer. (No prerequisite)

ELCT 59 **Technical Calculus For Electronics I** **3.0 Units**

This course is designed for students who are preparing for careers in electronics, electricity, computers, and related technical fields. Topics include fundamental concepts, introduction to calculus for electronics, functions, rates, limits, graphic differentiation, basic operations, derivatives, differentials, maxima and minima, and integrals. Three lecture hours per week. Offered Fall. (No prerequisite) This course may be taken two times.

ELCT 60 **Technical Calculus For Electronics II** **3.0 Units**

This course in technical calculus for electronics continues the study of functions and further operations. Topics includes trig functions, logarithmic and exponential functions, hyperbolic functions, partial derivatives, integration techniques, double integrals, infinite series, MacLaurin series, Taylor series, Fourier series, and introduction to differential equations. Three lecture hours per week. Offered Spring. (No prerequisite) This course may be taken two times.

ELCT 61 **Basic Maintenance of Personal**
(formerly ELCT 76) **Computers** **4.0 Units**

This hands-on course is designed to provide non-technical personal computer (PC) users with the skills necessary to service and upgrade PCs. Activities include: computer assembly and disassembly, disk drive removal and installation, and memory expansion with integrated circuit (IC) chips. Installation and check out of special functions boards, such as FAX/modem, also will be demonstrated. Lectures describing the PC and its components are augmented with computer-aided individualized instruction modules covering selected electronic principles related to the PC. Satisfies computer industries A+ certification requirements. Two hours lecture, 1.8 hours laboratory and 2.8 hours weekly by arrangement. (No prerequisite)

ELCT 62 **Personal Computer (PC):**
(formerly ELCT 95) **Servicing** **3.0 Units**

This hands-on course is designed to provide the student skills to work service, maintain, upgrade, and optimize personal computers. Activities include: computer disassembly, component identification, using diagnostic software, configuring the computer, troubleshooting methods, hard drive removal and installation, floppy drive removal and installation, troubleshooting a malfunctioning computer, and introduction to advanced troubleshooting techniques. Satisfies computer industries A+ certification requirements. Six hours weekly by arrangement. (No prerequisite)

ELCT 63 **Personal Computer (PC):**
(formerly ELCT 96) **Troubleshooting** **3.0 Units**

This course is a continuation of ELCT 95, Personal Computing Servicing. This hands-on course is designed to provide comprehensive troubleshooting down to the component level. Topics include: computer circuits, central processing unit (CPU) and support circuits, system monitors, input/output (I/O), system and secondary cache memory, video, disk drives and their control, and troubleshooting techniques. Six hours weekly by arrangement. (No prerequisite)

ELCT 65 **PC Monitors** **3.0 Units**

This hands-on course covers the fundamentals of troubleshooting and repairing PC monitors. Major topics include: signal inputs, external adjustments, components and circuit identification, power supply, video, vertical, and horizontal drive circuits, and troubleshooting, The student will utilize multimeters, signal generators, and oscilloscopes to troubleshoot various monitor faults. This course meets the objectives of the PC monitor section of the A+ certification examination. Six hours weekly by arrangement. (No prerequisite)

ELCT 66 **Multimedia Hardware Installation and Servicing** **2.0 Units**

This course provides both the technical instruction and the practical maintenance skills required to install, configure, and maintain PC multimedia systems. These include hands-on activities with CD-ROM drives, plug-and-play Soundblaster cards, headphones and microphones, speakers and speaker power supplies, cables, plus a fault isolation module for simulating system failures. Eight hours weekly by arrangement for nine weeks. (No prerequisite)

ELCT 67 **PC Laser Printers** **2.0 Units**

This course covers the fundamentals of electrophotographic, or laser printers. Emphasis is on printer maintenance and repair. Considerable attention is given to identifying and describing malfunction symptoms (printer, computer, software), isolating the problem, and performing the appropriate adjustment or repair. This course meets the objectives of the laser printer section of the A+ certification examination. Eight hours weekly by arrangement for nine weeks. (No prerequisite)

ELCT 68 **Macintosh Computer Fundamentals** **2.0 Units**

This course is designed for students desiring to learn about the basic operating features and major hardware components of Macintosh computers. Topics covered include the central processing unit (CPU) and memory, disk storage, information input/output (I/O), Small Computer System Interface (SCSI) devices, display, and simple troubleshooting techniques. This course meets the objectives of the Macintosh section of the A+ certification examination. Eight hours weekly by arrangement for nine weeks. (No prerequisite)

ELCT 69 **Network Topologies and Cabling** **2.0 Units**

This course provides both the technical instruction and the practical maintenance skills required to identify and layout common network topologies, and the type of cabling required for each. The course also includes hands-on projects configuring both a bus and star network, constructing the appropriate cables, installing the proper connectors, and testing the system using standard testing equipment. Eight hours weekly by arrangement for nine weeks. (No prerequisite)

ELCT 70 **PC Operating Systems** **3.0 Units**

This course provides the student with the necessary background working with MS-DOS 6.22 and MS-Windows 3.11 for Workgroups to successfully pursue the A+ certification program. This is a self-paced program that utilizes computer aided instruction (CAI) as the principle instruction tool. Six hours per week by arrangement. (No prerequisite)

ELCT 71 Principles of Digital Logic and Circuits 4.0 Units

This course covers semiconductors for digital circuits, digital logic circuits and digital integrated circuits; introduces Boolean Algebra, flip-flops and registers, sequential logic circuits and combinational logic circuits. Students learn how digital circuits are used in semiconductor memories; how data is converted from analog-to-digital and digital-to-analog formats; and how to troubleshoot digital circuits. Three lecture, three laboratory hours per week. Offered Fall. (No prerequisite)

ELCT 73 Microprocessor Principles 4.0 Units

This course covers computer number systems and codes, computer arithmetic, programming, the internal register, structure of the 6800 and 6808 microprocessors, microprocessors interfacing to RAM, ROM, and various input/output devices, input and output data operations through a peripheral interface adapter, and applications of the PIA. Three lecture, three laboratory hours per week. Offered Spring. (No prerequisite)

ELCT 74 Scientific Calculator 1.0 Unit

This course provides the student with a practical working knowledge of operating a scientific calculator. Topics include: order of operations, scientific notation, arithmetic operations, dimensional analysis (unit factor method), storing and recalling data, factorials, exponential and logarithmic functions, transformation of coordinates, and an introduction to complex arithmetic. Two lecture hours per week for nine weeks. (No prerequisite)

ELCT 75 Graphic Scientific Calculator 1.0 Unit

This course builds on the knowledge gained in ELCT 74, Scientific Calculator. Topics include: basic operations, mode menus, scientific and engineering notation, scientific functions, graphing, statistical operations, programming, and calculator-to-PC communications. Two lecture hours per week for nine weeks. (No prerequisite)

ELCT 77A Networking Technology and Practices I 4.0 Units

This hands-on course is designed to provide the student with fundamental knowledge and skills needed by networking service and support personnel. This course focuses on hands-on networking technology. Topics will include installation and setup for different network operating systems, network setup and management with different operating systems, setup and administration of user's accounts, maintaining network operations. Satisfies industry's Network+ certification and Novell's Networking Technologies exam requirements. Three lecture, three laboratory hours per week. (Prerequisite: ELCT 76. Corequisite: ELCT 69)

ELCT 77B Networking Technology and Practices II 4.0 Units

A continuation of Networking Technology and Practices I designed to provide the student with knowledge of skills needed by networking service and support personnel. This course focuses on hands-on networking practices. Topics will include designing and implementing a local area network (LAN), ability to integrate routers, switches and hubs to a (LAN) to improve traffic performance, be able to use software to monitor and analyze network traffic, troubleshooting network connection problems, increasing efficiency and speed of the network. Satisfies the Computer Technology Industry Association's (CompTia) Network+ certification and Novell's Networking Technologies exam requirements. Three lecture, three laboratory hours per week. (Prerequisite: ELCT 77A. Corequisite: ELCT 80)

ELCT 78A Cisco Networking Academy I 4.0 Units

Introduces the student to the computer network terminology, design principles, topology and protocols. Topics will include Open System Interconnection (OSI) model and industry standards, network topologies, Internet Protocol (IP) addressing, networking components, and basic network design. Satisfies Cisco Certified Network Associate (CCNA) certification exam requirements. Three lecture, three laboratory hours per week. (Prerequisite: ELCT 77 or ELCT 76)

ELCT 78B Cisco Networking Academy II 4.0 Units

An introductory course on Cisco router configuration and Cisco's routing protocols. Topics will include Router elements (RAM, ROM, CDP, SHOW), methods of flow control used in networking, control router passwords, and Cisco IOS software commands for router startup. Satisfies Cisco Certified Network Associate (CCNA) certification exam requirements. Three lecture, three laboratory hours per week. (Prerequisite: ELCT 78A)

ELCT 78C Cisco Networking Academy III 4.0 Units

A continuation of Cisco Networking Academy II, covering Virtual Local Area Networks (VLANS) and network switching. Topics will include Interwork Packet Exchange (IPS) address encapsulation types, Interwork Packet Exchange (IPS) access lists and Service Access Points (SAP) filters to control basic Novell traffic, Local Area Network (LAN) segmentation using bridges, Local Area Network (LAN) using routers, and benefits of Virtual Local Area Network (VLAN). Satisfies Cisco Certified Network Associate (CCNA) certification exam requirements. Three lecture, three laboratory hours per week. (Prerequisite: ELCT 78B)

ELCT 78D Cisco Networking Academy IV 4.0 Units

A continuation of Cisco Networking Academy III covering basic Wide Area Networking, Frame Relay, Integrated Services Digital Network (SDN) and Wide Area Network security. Topics will include Wide Area Network Services, Frame Relay terms and feature, configuring Frame Relay, Local Management Interface (LMI), maps and sub-interfaces, Wide Area Network (WAN) data Cisco routers, and Integrated Services Digital Network (ISDN) networking. Satisfies Cisco Certified Network Associate (CCNA) certification exam requirements. Three lecture, three laboratory hours per week. (Prerequisite: ELCT 78C)

ELCT 78E **Cisco Networking Academy V** **4.0 Units**

This is the first of a four course series to prepare students for Cisco's CCNP certification exam. Topics covered include an overview of scalable internetworks, managing IP traffic, configuring queuing to manage traffic, routing protocols, overview, extending IP addresses using VLSMs, configuring OSPF in a single area, interconnecting multiple OSPF areas, configuring enhanced GRP, optimizing routing update operation and configuring BGP. Three lecture, three laboratory hours per week. (Prerequisite: ELCT 78D. Grade Option) This course my be taken four times.

ELCT 78F **Cisco Networking Academy VI** **4.0 Units**

This is the second course of a four course series designed to prepare students for Cisco's CCNP certification. This course will cover the subject of Remote Access. Topics will include the following: an overview of Wide Area Networks (WAN), modems and asynchronous connections, Point to Point Protocol (PPP), Integrated Services Digital Network (ISDN), dial-on-demand routing (DDR), Dialer Profiles, X.25, Frame Relay and Frame Relay Traffic Shaping, WAN Backup Technologies, Queuing and Compression, Network Address Translation (NAT), Authentication, Authorization and Accounting (AAA). Three lecture, three laboratory hours per week. (Prerequisite: ELCT 78D. Cisco's Networking Academy IV) This course my be taken four times.

ELCT 78G **Cisco Networking Academy VII** **4.0 Units**

This is the third of a four course series designed to prepare students for Cisco's CCNP certification. This course will cover the subject of Multilayer Switching. Topics will include the following: Gigabit Ethernet, Switch Administration, Spanning-Tree Protocol, Inter-Virtual Local Area Network (VLAN) Routing, Multilayer Switching (MLS), Cisco Express Forwarding (CEF, Hot Standby Router Protocol, Virtual Trunking Protocol (VTP), Multicasting and Security. Three lecture, three laboratory hours per week. (Prerequisite: ELCT 78C.) This course may be taken four times.

ELCT 78H **Cisco Networking Academy VIII** **4.0 Units**

This is the fourth and last course of a four course series designed to prepare students for Cisco's CCNP certification. This course will cover trouble shooting and diagnostics of advanced and complex network topologies. Topics will include: Routing protocols (RIP, EIGRP, OSPF, ISIS and BGP4), Catalyst Switches, Campus TCP/IP connectivity, VLANs, Giga Ether Channel, HSRP, Port Security, SNMP, multicasting, QoS, ISDN, Frame Relay, X.25 and POTS. Three lecture, three laboratory hours per week. (Prerequisite: ELCT 78D.) This course may be taken four times.

ELCT 78I **Fundamentals of Networking Security** **4.0 Units**

This course is designed for network professionals interested in securing the network infrastructure. The course focuses on securing the network at the perimeter router through the use of the PIX Security Appliance. The Fundamentals of Network Security prepares candidates for the Cisco Firewall Specialist Certification as well as the foundation to the Virtual Private Network (VPN) Specialist Certification, Intrusion Detection System Specialist (IDS) Certification, Cisco Certified Security Professional (CCSP) Certification, Cisco Certified Security Certification (CCSP) and Information Systems Security (INFOSEC) Professional Certification. Three lecture, three laboratory hours per week. (Prerequisite: ELCT 78D.) This course my be taken four times.

ELCT 78J **Fundamentals of Wireless LANs** **4.0 Units**

The Wireless Local Area Network (LAN) course focuses on the design, planning, implementation, operation and troubleshooting of wireless LANs. It covers a comprehensive overview of the technologies, security and the best design practices with particular emphasis on hands on skills in the area of wireless setup and troubleshooting. Topics include: Wireless LAN (WLAN) setup and troubleshooting, 802.11 (a, b and g) technologies, WLAN site surveys, resilient WLAN design and installation, WLAN security, and Vendor inoperability strategies. The course also prepares network professionals for "Cisco Wireless LAN Support Specialist" certificate. Three lecture, three laboratory hours per week. (Prerequisite: ELCT 78D.) This course my be taken four times.

ELCT 79A **Microsoft Certified Systems Engineer** **4.0 Units**

This is the first of a series of courses required for Microsoft MCSE certification. Topics will include installing Windows 2000 Professional, installing Windows 2000 by using Windows 2000 Server Remote Installation Services (RIS), deploy service packs, manage and troubleshoot access to shared folders, manage shared printers, configure Advance Power Management (APD), encrypt data by using Encrypting Files System (EFS), manage hardware profiles, and configure and troubleshoot TCP/IP protocol. Three lecture, three laboratory hours per week. (No prerequisite. Grade Option.) This course may be taken four times.

ELCT 79B **Microsoft Certified Systems Engineer II** **4.0 Units**

The second in a series of courses required for Microsoft MCSE certification. Topics include: installing and configuring Microsoft Windows 2000 server; unattended installation of Windows 2000 server; Microsoft Windows 2000 file systems and advanced file systems; active directory services; administering Microsoft Windows 2000 server; administering print services; network protocols and services; routing and remote access services; Microsoft Windows 2000 security; monitoring and optimization; Microsoft Windows 2000 application servers. Three lecture and three laboratory hours per week. (No prerequisite Recommended: ELCT 79A Microsoft Certified Systems Engineer. Grade Option)

ELCT 80 **Fiber Optics Cabling** **3.0 Units**

This course is designed to introduce students to fiber optic communications, transfer equipment and cabling. Students will explore fiber optics theory, operation of transfer equipment, assembly and repair of fiber optic cabling. Six hours weekly by arrangement. (Prerequisite: ELCT 69)

ELCT 81 **Soldering Theory and Techniques** **1.0 Unit**

This hands-on course is designed to provide the student basic soldering theory and techniques. Topics include: soldering theory, types of soldering irons, soldering iron tips, soldering guns, solder connections, and unsoldering techniques. Course includes construction project. Two hours weekly by arrangement. (No prerequisite)

ELCT 83 **Small Office/Home Office (SOHO) Networking** **4.0 Units**

Small Office/Home Office (SOHO) course is designed for persons with little or no background in networking technologies to setup, operate, maintain and troubleshoot office/home Local Area Network (LAN). Topics include: Networking Components Identification and Installation, Installing, Configuring and Troubleshooting Basic Local Area Networks, wireless Networking, Internet Access and Sharing, SOHO Network Security and Virus Protection, Microsoft Windows 2000/XP Network configuration and Resource Sharing, Video Conferencing for Telecommuters, and VoIP Networking. Three lecture, three laboratory hours per week. (No prerequisite. Grade Option.) This course my be taken four times.

ELCT 84 **Computer Networking** **3.0 Units**

Students learn how to formulate network specifications, install, and maintain local area computer networks (LAN). Topics and activities include: fundamentals and protocols of data communications and communication architectures, selection, preparation, and installation of LAN cabling, network operating systems, and troubleshooting. Students will install and configure modems, connect telephone lines, operate modems, and transfer files. Satisfies computer industries A+ certification requirements. Six hours weekly by arrangement. (No prerequisite)

ELCT 85 **Optoelectronics: Fiber Optics 3.0 Units**

This high-technology laboratory course demonstrates the use of fiber optics in a wide range of applications including office copy machines, biomedical instruments, telephone communications, aircraft equipment, consumer products and motor vehicles. Topics include: operation and application of light emitters, detectors, fiber optic cables and associated hardware, data transfer, bar code scanning, and contactless switching. Six hours weekly by arrangement. (No prerequisite)

ELCT 86 **Optoelectronics: Lasers** **3.0 Units**

Continuation of ELCT 85. This high technology laboratory course emphasizes the principles and applications of lasers as used in telecommunications, consumer electronics, biomedical electronics, and industry. Topics include: Principles of lasers, laser optics, drive and modulation circuits, lasers and fiber optics links, and audio video subcarrier modulation. Six hours weekly by arrangement. (No prerequisite)

ELCT 87 **Industrial Electronics: Industrial Control Systems, Devices and Circuits** **3.0 Units**

This course is designed to provide the student an opportunity to study a wide range of applications of electronics found in industrial automation and robotics. Topics include: operational amplifiers, linear integrated circuits, generators and motors, control devices and circuits, transducers, programmable logic controllers (PLCs), PLC functions, ladder logic, programming and applications. Six hours weekly by arrangement. (No prerequisite)

ELCT 88 **Industrial Electronics: Industrial Process Control Applications** **3.0 Units**

This course is designed to demonstrate a wide variety of electronic control systems and circuits which are controlled both manually and by use of the programmable logic controller (PLC). Topics include: motors and generators, control devices, timing control, motor control, counting, position control, servomechanisms, and applications and troubleshooting. Six hours weekly by arrangement. (No prerequisite)

ELCT 89 **Biomedical Electronics: Biomedical Instrumentation** **3.0 Units**

This course is designed for students planning careers in biomedical electronics, technicians working in hospitals, and those working for companies that manufacture, service, install biomedical equipment. Six hours weekly by arrangement. (No prerequisite)

ELCT 90 **Biomedical Electronics: Advanced Biomedical Instrumentation** **3.0 Units**

This course is a continuation of ELCT 89, and is to acquaint the student with sensors and other electronic equipment used in making physiological measurements. Topics include: electrocardiograph measurements (ECG), electromyogram measurements (EMG), electroencephalogram measurements (EEG), pulse rate, galvanic skin resistance, and temperature measurement. Six hours weekly by arrangement. (No prerequisite)

ELCT 91 **Microprocessor Interfacing** **3.0 Units**

This course is designed to give the student a practical working knowledge of interfacing a microprocessor with external sensing and activator systems. Topics include microprocessor basics, buses, address decoding, 68HC1 I chip structure and internal features, instruction timing, switch decoding, interfacing with displays and adapters, I/O control techniques, data communications, serial/parallel conversion, interfacing to RAM, EPROMs, analog-to-digital and digital-to-analog devices. Offered Fall, Spring, Summer. One hundred eight hours individualized instruction required to complete. (No prerequisite)

ELCT 92 **Microprocessor Applications** **3.0 Units**

Continuation of Microprocessor Interfacing. This course concentrates on specific applications related to instrumentation and physical measurement. Activities include constructing a microprocessor-controlled digital multimeter (DMM), thermometer, light meter, and photometer. The student will analyze how strain gauges are used to measure force. The student will design and construct a microprocessor/step motor interface and control circuit. One hundred eight hours individualized instruction required to complete. (No prerequisite)

ELCT 93 **Consumer Electronics: Television Servicing** **3.0 Units**

This course is designed to prepare students to work in the fields of television servicing and video equipment maintenance. Topics include: the television system, television receivers, test equipment and servicing aids, troubleshooting techniques, digital TV, monitors, projection television, and introduction to VCR troubleshooting and repair. Six hours weekly by arrangement. (No prerequisite)

ELCT 94 **Consumer Electronics: VCR/Camcorder Servicing** **3.0 Units**

Continuation of Television Servicing, ELCT 93. This course concentrates on maintenance and repair of the video cassette (VCR), and camcorders. Topics include: video cassette recording, magnetic recording, theory, VCR and camcorder operating theory, theory of light and optics, electronic shutters, transducers, basic and advanced VCR and camcorder troubleshooting and repair. Six hours weekly by arrangement. (No prerequisite)

ELCT 97 **Telecommunications: Digital Communications 3.0 Units**

This high technology laboratory course is designed to provide a broad background in the use of digital devices used in telephony, as well as in general digital communications. Emphasis is placed on the telephone industry, both wireless and fiber optics telecommunications, and synthetic speech. Topics include: digital communications, the subscriber telephone, the central office, and digitized speech. Six hours weekly by arrangement. (No prerequisite)

ELCT 99 **Telecommunications: Microwave Communications** **3.0 Units**

This high technology laboratory course is designed to provide a broad background in the use of microwave transmitters, receivers, microwave components, and horn antennas. Emphasis is placed on microwave communication links. Topics include: voice, narrow band, audio wideband, television, video, fiber optics interfaces, pulse code modulation, and multiplexing signals. Six hours weekly by arrangement. (No prerequisite)

ELCT 110 **Survey of Computer Technology**
(formerly ELCT 10) **3.0 Units**

This course is intended for students who have a general interest in electronics and computer technology, history, and applications. Topics include electronics and computer technology, basic theory of electricity and magnetism, production of electricity and magnetism, control of the electron, electronic and computer components, tools of the trade, troubleshooting, electronic and computer math, applications and operating software. Three hours lecture per week. CSU. (No prerequisite)

ELCT 131 **D.C. Circuit Theory and Analysis**
(formerly ELCT 31) **4.0 Units**

An in-depth analysis of DC theory and circuit operation. Topics include applications of Ohm's Law, Kirchhoff's Laws and their applications to series, parallel and series-parallel circuits, voltage dividers and bridge circuits, magnetism, electromagnetic induction, and network theorems, and an introduction to alternating voltages and currents. Three lecture, three laboratory hours per week. CSU. Offered Fall, Spring. (No prerequisite)

ELCT 132 **A.C. Circuit Theory and Analysis**
(formerly ELCT 32) **4.0 Units**

An in-depth analysis of AC circuit theory and circuit operation. Topics include the characteristics of inductors and capacitors and their response in AC circuits, RC and RL time constants, alternating current circuits, complex number analysis, network analysis for AC circuits, resonance, filters. Three lecture, three laboratory hours per week. CSU. Offered Spring, Summer. (No prerequisite)

ELCT 133 **Solid State Devices and Circuits**
(formerly ELCT 33) **4.0 Units**

Semiconductor theory, algebraic and graphical analysis of semiconductor devices. To include bi-polar and field effect transistors, DC stability design and analysis, small signal parameters and AC equivalent circuits, class A and B power amplifiers, class C and other amplifiers, and frequency effects. Three lecture, three laboratory hours per week. CSU. Offered Fall. (No prerequisite)

ELCT 134 **Solid State Circuit Analysis**
(formerly ELCT 34) **4.0 Units**

Course focuses on linear-integrated circuits and their use in the design of circuits and instruments. Topics include operational amplifier theory and linear circuits, nonlinear OP-Amp circuits, regulated power supplies, oscillators and timers, thyristors, frequency domain, and frequency mixing. Three lecture, three laboratory hours per week. CSU. Offered Spring. (No prerequisite)

ELCT 138 **Cooperative Education**
(formerly ELCT 38)

See Cooperative Education (1 - 8 units). CSU

ELCT 148 **Special Topics**
(formerly ELCT 48)

See Special Topics listing (Variable units). CSU

ENGLISH

ENGL 6 **Basic Writing and Reading**
(formerly ENGL 166) **4.0 Units**

This is a basic reading and writing course designed to build reading comprehension at both literal and inferential levels and to build proficiency in the basics of writing expository prose. This course emphasizes the connections between reading and writing. Four lecture hours per week. This course will not apply to the associate degree. Offered Fall, Spring, Summer. (No prerequisite) This course may be taken two times.

ENGL 8 **Reading Improvement 1** **3.0 Units**

(formerly ENGL 58)

The course emphasizes the improvement of vocabulary and reading comprehension skills. Course work focuses on comprehension, analysis and evaluation of textbooks and other college level reading materials. Assignments develop study strategies such as textbook marking, test taking and concentration. The strategies apply to a wide range of fields including drama, history, natural science and psychology. Three lecture hours per week. This course will not apply to the associate degree. (No prerequisite. Grade option) This course may be taken two times.

ENGL 10 Laboratory in Writing 1.0 Unit
This course is designed to provide opportunities for students in all segments of the college community to develop their writing skills. Emphasis is on the one-to-one tutorial approach, computer-assisted instruction, and work composing/processing. Three laboratory hours per week. This course does not apply to the Associate Degree. (No prerequisite. Credit/No Credit.) This course may be taken four times.

ENGL 50 Writing Fundamentals 3.0 Units
A practical writing course emphasizing expository writing, including planning, organizing, composing short essays, reading a variety of college preparatory texts, and editing for punctuation, diction, usage and sentence structure. Three lecture hours per week. Offered Fall, Spring, Summer. (Prerequisite: ENGL 6 or eligibility as determined by VVC assessment.)

ENGL 50L Laboratory-Enhanced Study for English 50 1.0 Unit
A Laboratory-enhanced study concurrent with English 50 for students participating in the Student Support Services program. A practical course supplementing the process and function of expository writing, including a review of spelling, punctuation, diction, usage, and sentence structure. One-half lecture, one hour by arrangement per week. (Prerequisites: completion of ENGL 6 with a "C" or better, or Assessment Placement, and referral by Student Support Services. Credit/No Credit) This course may be taken two times.

ENGL 59 Effective Reading and Study Skills 3.0 Units
This reading course focuses on comprehension, retention, and reproduction of main ideas and significant details. Application of reading skills, rate of comprehension, vocabulary, critical thinking, and study skills. Three lecture hours per week. Offered Fall, Spring, Summer. (Prerequisite: ENGL 6 with a grade of "C" or better or eligibility as determined by VVC assessment.) This course may be taken two times.

ENGL 61 Theory and Practice of Tutoring Writing 3.0 Units
This course is designed to provide students with exposure to the theoretical concepts and understanding of the issues and practices relevant to the role of tutoring writing through observing, reading, and discussing the relationship between the writing, his/her writing, the tutor, the classroom teacher, and the classroom environment. Three lecture hours per week. (Prerequisite: ENGL 101 with a grade of "C" or better. Grade Option) This course may be taken four times.

ENGL 62 Writing Tutor Workshop 1.0 Unit
This is an interactive course that analyzes the techniques of tutoring writing. Students will examine the role of writing tutors in one-on-one conferences, discuss tutoring theory, and observe tutors in the Writing Center and/or composition instructors in the classroom. Though this class is meant to prepare students to tutor writing, any student wishing to improve his/her writing skills will benefit from this course. One lecture hour per week. (Prerequisite: Completion of ENGL 101 with a grade of "C" or better. Grade Option.)

ENGL 65 College Grammar 2.0 Units
This course provides intensive college-level work on grammar, punctuation, and mechanics, providing practice and practical applications. Two lecture hours per week. (Prerequisite: ENGL 6. Grade Option.) This course may be taken two times.

ENGL 101 English Composition and Reading
(formerly ENGL 1A) (CAN ENGL 2) 4.0 Units
Principles and methods of research and expository writing. Analytical reading of source materials and writing of expository papers. Four lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (Prerequisite: Completion of ENGL 50 with grade of "C" or better or eligibility as determined by VVC assessment.)

ENGL H101 Honors Composition and Reading
(formerly ENGL H1A) 5.0 Units
Principles and methods of expository writing. Analytical reading of source materials and writing of expository papers. Honors seminar will deepen students' insights. Five lecture hours per week. CSU, UC. (Prerequisite: Enrollment in honors course requires acceptance into the Honors Program or prior approval from the instructor as well as meeting prerequisites for ENGL 101 (completion of ENGL 50 with a grade of "C" or better or eligibility as determined by VVC assessment.)

ENGL 102 Composition and Literature
(formerly ENGL 1B) (CAN ENGL 4) 3.0 Units
An introduction to the genres of literature including short story, poetry, drama, and novel. Further training in writing especially about literature. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (Prerequisite: Completion of ENGL 101 with a grade of "C" or better.)

ENGL H102 Honors Composition and
(formerly ENGL H1B) Literature 4.0 Units
Further training in writing and an introduction the short story, novel, poetry, and drama. The Honors seminar will deepen students' insights into literature and into the process of writing about it. Four lecture hours per week. CSU, UC [Prerequisite: Enrollment in honors course requires acceptance into the Honors Program or prior approval from the instructor as well as meeting prerequisites for ENGL 102 (completion of ENGL 101 with a grade of "C" or better)]

ENGL 104 Critical Thinking and Composition
(formerly ENGL 2) 3.0 Units
This course is designed to develop the student's critical thinking, reading and writing skills beyond the level achieved in English 101. It will focus primarily on the analysis and evaluation of expository and argumentative discourse and on writing analytical and argumentative essays. CSU, UC. (Prerequisite: ENGL 101 with a grade of "C" or better or eligibility as determined by VVC assessment.)

ENGL H104 **Honors Critical Thinking**
(formerly ENGL H2) **and Composition** **4.0 Units**
This course is designed to develop the student's critical thinking, reading and writing skills beyond the level achieved in English 101. It will focus primarily on the analysis and evaluation of expository and argumentative discourse, and on writing analytical and argumentative essays. Four lecture hour per week. CSU, UC [Prerequisite: Enrollment in honors course requires acceptance into the Honors Program or prior approval from the instructor as well as meeting prerequisites for ENGL 102 (completion of ENGL 101 with a grade of "C" or better or eligibility as determined by VVC assessment.)]

ENGL 109 **Creative Writing**
(formerly ENGL 9) **(CAN ENGL 6)** **3.0 Units**
Principles of creative expression, including work in fiction and poetry. Three lecture hours per week. CSU, UC. Offered Fall and Spring. (Prerequisite: ENGL 101 with a grade of "C" or better. ENGL 102 recommended)

ENGL 112 **Technical Writing** **3.0 Units**
(formerly ENGL 12)
Principles of effective writing in a variety of formats to suit specific technical audiences. Clarity and accuracy in written communication situations are stressed. Topics include formal and informal reports, special business letters, instructions, and proposals. Designed to simulate the technical writer's job. Three lecture hours per week. CSU. (Prerequisite: ENGL 101 with a grade of "C" or better)

ENGL 116 **Authors of the Theatre** **3.0 Units**
(formerly ENGL 16)
A survey of playwrights from the Greeks to the present. The selected plays are read, discussed, and analyzed. It is both AA and BA applicable. Three lecture hours per week. CSU, UC. Offered Fall. See cross listing for TA 116. (No prerequisite)

ENGL 128 **Special Topics**
(formerly ENGL 28)
See Special Topics listing (Variable units).

ENGL 129 **Independent Study**
(formerly ENGL 29)
See Independent Study (1-3 units).

ENGL 138 **Cooperative Education**
(formerly ENGL 38)
See Cooperative Education listing (1-8 units). CSU

ENGL 149 **Critical Reading and College**
(formerly ENGL 49) **Study Skills** **3.0 Units**
Formerly College Reading.
A college reading course emphasizing interpretive, analytical, and evaluative abilities required for academic reading; college vocabulary, research, and study skills. Three lecture hours per week. CSU. Offered Fall, Spring, Summer. (Prerequisite: ENGL 59 with a grade of "C" or better)

ENGL 162 **Native American Literature**
(formerly ENGL 31) **3.0 Units**
An introduction to Native American literature from the oral tradition to contemporary writing. Study of myths and legends, traditional oral narratives and songs, transitional forms such as oration and autobiography, and written genres (poem, short story, novel). Three lecture hours per week. CSU, UC. (No prerequisite; ENGL 102 is recommended.)

ENGL 210 **Fiction Writing** **3.0 Units**
(formerly ENGL 10)
Principles of writing advanced fiction, focusing on the short story and the novel. Three lecture hours per week. CSU, UC (Prerequisite: ENGL 109. Grade Option.)

ENGL 211 **Poetry Writing** **3.0 Units**
A workshop-style course which includes a review of forms, poetic techniques, and revision strategies. Three lecture hours per week. CSU, UC. (Prerequisite: ENGL 109. Grade Option.) This course may be taken four times.

ENGL 220 **Modern Fiction** **3.0 Units**
(formerly ENGL 20)
Twentieth century literature, chiefly of England and the United States, emphasizing novels and short stories. Three lecture hours per week. CSU, UC. (Prerequisite: ENGL 102 with a grade of "C" or better)

ENGL 225 **Poetry** **3.0 Units**
(formerly ENGL 25)
British and American poetry with consideration of versification, structure, imagery, diction, themes, and genres. Three lecture hours per week. CSU, UC. (Prerequisite: ENGL 102 with a grade of "C" or better)

ENGL 230 **Survey of American**
(formerly ENGL 30A) **Literature 1600-1865**
(CAN ENGL 14) **3.0 Units**
A survey of exemplary items in the origin and development of American thought and culture from 1600 to 1865. Designed to provide an understanding and appreciation of American literary achievements through study of the works of writers including Bradford and Bradstreet, Edwards and Wheatley, Franklin, Irving, Poe, Stowe and Emerson. Also includes a study of Native-American folk tales and slave narratives. Three lecture hours per week. CSU, UC. (Prerequisite: Completion of ENGL 102 with a grade of "C" or better)

ENGL 231 **Survey of American Literature**
(formerly ENGL 30B) **1865 to Present** **3.0 Units**
A survey of exemplary items in the origin and development of American thought and culture from 1865 to the present. Designed to provide an understanding and appreciation of American literary achievements through study of the works of great writers including Whitman, Dickinson, Twain, Frost, Welty, Thurber, Tan and others. Three lecture hours per week. CSU, UC. (Prerequisite: Completion of ENGL 102 with a grade of "C" or better)

ENGL 232 **Chicano/a and Latino/a Literature**
(formerly ENGL 32) **3.0 Units**
Introduction to the Mexican/American/Latino/a cultural experience through literary analysis of fiction, poetry, drama, and the essay. Studies literature in the context of literary/historical-political growth of Mexican/American/Latino/a identity and of current theories of analyzing multicultural writings. Three lecture hours per week. CSU, UC. (Prerequisite: English 101)

ENGL 233 **African American Literature**
(formerly ENGL 33) **3.0 Units**
An introductory survey course of African American oral and written literary traditions with consideration of historical and cultural roots. Three lecture hours per week. CSU, UC. (Prerequisite: ENGL 102 with a grade of "C" or better)

ENGL 235 **Children's Literature** **3.0 Units**
(formerly ENGL 35)
A survey of children's literature, emphasizing folktales, narrative fiction, poetry and some non-fiction works. Also includes the history and development of literature and illustration for children, the selection of materials for various age groups, and literature and the media. Three lecture hours per week. CSU. Offered Spring. (Prerequisite: ENGL 101 with a grade of "C" or better)

ENGL 240/241 **World Literature** **3.0-3.0 Units**
(formerly ENGL 40A-B)
Masterpieces in translation from earliest times through the Renaissance (240), and from the Neoclassical to modern times (241). Three lecture hours per week. CSU, UC. ENGL 240 offered Fall semester every third year starting Fall 1990. (Prerequisite: ENGL 102 with a grade of "C" or better)

ENGL 245 **Survey of English Literature**
(formerly ENGL 46A) **(CAN ENGL 8)** **3.0 Units**
A survey of major writers from the Middle Ages to 1800, including an examination of language development, historical backgrounds, and literary trends; special consideration of Chaucer, Spenser, Marlowe, Shakespeare, Bacon, Donne, Milton, Dryden, and Pope. Three lecture hours per week. CSU, UC. (Prerequisite: ENGL l02 with a grade of "C" or better)

ENGL 246 **Survey of English Literature**
(formerly ENGL 46B) **(CAN ENGL 10)** **3.0 Units**
A survey of major British writers of poetry, drama, fictional and nonfictional prose from 1800 to the present. Three lecture hours per week. CSU, UC. (Prerequisite: ENGL l02 with a grade of "C" or better)

ENGL 247 **Shakespeare** **3.0 Units**
(formerly ENGL 47)
An introduction to Shakespeare's work through a study of his principal plays and sonnets. Three lecture hours per week. CSU, UC. (Prerequisite: ENGL l02 with a grade of "C"or better)

ENGLISH AS A SECOND LANGUAGE (ESL)

VVC offers a wide variety of noncredit ESL classes at lower levels, from low beginning to advanced level. Please consult the Class Schedule for a description of these classes, along with times and locations.

ESL 3 **Low Beginning Reading and Writing** **4.0 Units**
Students at this level demonstrate little or no competence in communicating through writing and little or no control of vocabulary, grammar and sentence structure. Course is designed to teach students basic alphabet and phonics, and to read and write simple stories. Students will copy text and/or generate words or simple phrases; develop awareness of appropriate word choice or correct form; write simple sentences in thematic units. Three lecture, three laboratory hours per week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit) This course may be taken two times.

ESL 5 **Beginning Listening and Speaking** **3.0 Units**
This course is designed for the non-native speaker of English who has no ability or very little competence in speaking and listening. Emphasis is on developing students' ability to listen and understand basic English. Nonverbal social customs are taught; nonverbal behavior and cross-cultural communication are taught implicitly through modeling, interaction and demonstration. Two lecture, three laboratory hours per week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit) This course may be taken two times.

ESL 12A **Basic Computer Literacy** **1.0 Unit**
This is a two-part course in ESL Computer Literary for non-native speakers of English. The focus of the course is to develop language skills related to computer usage. Students will learn computer uses for ESL courses and education purposes. One lecture hour per week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit) This course may be taken three times.

ESL 12B **Basic Computer Literacy** **1.0 Unit**
This is the second in a series of ESL Computer Literary for beginners. The focus of the course is to expand on basic computer knowledge for ESL educational purposes. One lecture hour per week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit) This course may be taken three times.

ESL 13 **High Beginning Reading and Vocabulary** **3.0 Units**
This course is designed for the non-native speakers of English with some competence in reading and vocabulary. The course focuses on reading abilities through the enhancement of vocabulary skills and cultural awareness. Emphasis is placed on developing a life-long ability to read for pleasure. American culture is introduced through newspapers, folk tales, short stories and cross-cultural readers. Three lecture hours per week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit) This course may be taken two times.

ESL 22 **Speaking and Listening Skills**
(formerly ESL 116A) **for Job Search** **0.5 Unit**
This is the first in a series of six intensive one-week courses designed for students who need to improve their English speaking and listening skills for job success. This course focuses on speaking and listening skills for the job search, including how to describe one's abilities, strengths, and past experience, as well as how to network with others. This course will not apply to the Associate Degree. Four lecture, twelve laboratory hours per week for one week. (No prerequisite. Recommended: Any of the following: successful completion of AENG 10.3 and 10.4, or a minimum score of 40% on the CELSA, or instructor recommendation. Grade option) This course may be taken four times.

ESL 23 **Pre-Intermediate Reading**
(formerly ESL 154) **and Vocabulary** **2.0 Units**
This course focuses on development and practice of fundamental reading and vocabulary skills to prepare students who plan to continue their post-secondary education. Reading skills include understanding new vocabulary in context and scanning for specific information. Students read simplified texts on academic and vocational subjects. Two lecture hours per week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit) This course may be taken two times.

ESL 25 **Pre-Intermediate Speaking**
(formerly ESL 153) **and Listening** **3.0 Units**
This course focuses on fundamental speaking and listening skills for ESL students who have a basic knowledge of common English words and phrases. Students learn to understand short, spoken passages, including questions and warnings. Speaking skills include describing familiar situations and events and giving basic information on the telephone. Two lecture, three laboratory hours per week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit.) This course may be taken two times.

ESL 27 **Pre-Intermediate Writing**
(formerly ESL 116D) **and Grammar** **2.0 Units**
This course focuses on fundamental writing and grammar skills for ESL students who have a basic knowledge of common English words, phrases, and structure. Students write at the sentence and paragraph level. They learn to organize ideas and edit for grammar, spelling, and punctuation. Two lecture hours per week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit.) This course may be taken two times.

ESL 30A **Intermediate Pronunciation I**
1.0 Unit
This is the first of a two-part series of Intermediate Level Pronunciation courses. It is designed for non-native speakers of English who would like to improve their oral communication skills for better employment opportunities; to increase self-confidence in occupational, social, and academic settings. This class will focus on introducing basic sounds, intonation, and rhythm of the English language. Emphasis is on oral fluency and individual accuracy. One lecture hour per week. This course will not apply to the Associate Degree. (Prerequisites: Completion of ESL 23 or ESL 25. Credit/No Credit.) This course may be taken two times.

ESL 30B **Intermediate Pronunciation**
1.0 Unit
This is the second of a two-part series of Intermediate Level Pronunciation courses. The course designed for low intermediate students whose speech is causing communicative difficulties at work, at school or in social situations. Students improve oral fluency for better employment opportunities and increase self-confidence in occupational, social, and academic settings. Students practice listening, rhythm, intonation, and pronunciation. Emphasis is placed on oral fluency and individual accuracy. One lecture hour per week. This course will not apply to the Associate Degree. (Prerequisites: Completion of ESL 23 or ESL 25. Credit/No Credit.) This course may be taken two times.

ESL 31 **Intermediate Writing I** **3.0 Units**
(formerly ESL 101)
First in a series of two intermediate courses for non-native learners of English to help them develop writing skills needed for educational and personal success. Students write short compositions on familiar topics. They learn writing as a process, which includes writing ideas quickly, then organizing them and correcting errors. Two lecture, three laboratory hours per week. This course will not apply to the Associate Degree. (No prerequisite. Satisfactory score on ESL placement test or instructor recommendation is recommended. Credit/No Credit) This course may be taken three times.

ESL 32 **Intermediate Writing II** **3.0 Units**
(formerly ESL 102)
This class is a continuation of ESL 101. Skills to be introduced include summarizing and revising and editing on computer. Students will review paragraph writing on familiar topics, then learn to write compositions on unfamiliar topics. Two lecture, three laboratory hours per week. This course will not apply to the Associate Degree. (No prerequisite. Satisfactory completion of ESL 31 or satisfactory score on ESL placement test or instructor recommendation is recommended. Credit/No Credit) This course may be taken three times.

ESL 33 **Reading and Vocabulary** **3.0 Units**
(formerly ESL 103)
A reading course for low intermediate ESL students emphasizing main ideas, outlining, and vocabulary in context. This course will not apply to the Associate Degree. Two lecture, three laboratory hours per week. (No prerequisite. It is recommendation that students should already have basic skills in decoding information and understanding at a literal level. They should be able to read and understand short, authentic texts such as letters and instructions. Credit/No Credit) This course may be taken three times.

ESL 34 **High Intermediate Reading**
(formerly ESL 104) **and Vocabulary** **3.0 Units**
This class is a continuation of ESL 33. Skills include comparing and contrasting main characters, determining cause and effect, and predicting the story outcome. Two lecture, three laboratory hours per week. This course will not apply to the Associate Degree. (Prerequisite: Successful completion of ESL 33, or have a satisfactory score on the ESL placement test, or instructor recommendation. Credit/No Credit) This course may be taken three times.

ESL 35A **Low Intermediate Listening**
(formerly ESL 35) **and Speaking** **3.0 Units**
This course focuses on speaking and listening skills for students at intermediate level of English. Students practice telephone and face-to-face conversations. They learn to express common courtesies such as thanking and apologizing. They use strategies to listen to and understand new words. Two lecture, three laboratory hours per week. This course will not apply to the Associate degree. (No prerequisite. Credit/No Credit.) This course may be taken two times.

ESL 35B **High Intermediate Listening**
(formerly ESL 36) **and Speaking** **3.0 Units**
This course focuses on speaking and listening skills for students at high intermediate level of English. Students practice a variety of conversational and listening strategies and engage in discussions. Through role play, and simulation exercises, students learn to express opinions and reach agreement. Two lecture, three laboratory hours per week. This course will not apply to the Associate degree. (No Prerequisite. Credit/No Credit.) This course may be taken two times.

ESL 37 **Intermediate Grammar**
(formerly ESL 111) **3.0 Units**
Students at this level learn and apply rules of English grammar and structure for use in oral and written communication. This course provides practice in areas such as common verb tenses, question forms, and expressions of ability, permission and advice. This course will not apply to the Associate Degree. Three lecture, hours per week. (No prerequisite. Grade Option) This course may be taken four times.

ESL 37A **Low Intermediate Writing**
and Grammar **3.0 Units**
This course helps students at low intermediate level develop writing and grammar skills appropriate for educational and personal success. Students write short compositions on familiar topics. They learn to apply principles of grammar as they write. Two lecture, three laboratory hours per week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit.) This course may be taken two times.

ESL 37B **High Intermediate Writing**
and Grammar **3.0 Units**
This course helps students at high intermediate level develop writing and grammar skills appropriate for educational and personal success. Students write short compositions on a variety of topics. They learn to apply principles of grammar as they write. Two lecture, three laboratory hours per week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit.) This course may be taken two times.

ESL 38 **High Intermediate Grammar**
(formerly ESL 112) **3.0 Units**
Students at high intermediate level learn and apply rules of English grammar and structure for use in oral and written communication. This course provides practice in areas such as description using adjectives and adverbs, use of gerund and infinitive forms of verbs, certain modals, and nouns and articles. This course will not apply to the Associate Degree. Three lecture hours per week. (No prerequisite. Grade Option) This course may be taken four times.

ESL 43 **Low Advanced Reading and**
Vocabulary **3.0 Units**
This is the first of two courses designed for non native speakers of English who are approaching advanced level of proficiency in reading English. Emphasis is on further developing reading and vocabulary skills. Students are introduced to a variety of reading genres, word structure, vocabulary, and reading strategies. This course will not apply to the Associate Degree. Three lecture hours per week. (No prerequisite. Credit/No Credit only.) This course may be taken two times.

ESL 47 **Advanced Grammar** **3.0 Units**
(formerly ESL 113)
Students at advanced level learn and apply rules of English grammar and structure for use in oral and written communication. This course provides review practice and expanded study of verb tenses, gerunds and infinitives, modals, and tag questions. This course will not apply to the Associate Degree. Three lecture hours per week. (No prerequisite. Grade Option) This course may be taken four times.

ESL 48 **High Advanced Grammar**
(formerly ESL 114) **3.0 Units**
Students at high advanced level learn and apply rules of English grammar and structure for use in oral and written communication. This course provides review practice and expanded study of phrasal verbs and introduces passive forms, conditional statements, adjective clauses, and indirect speech. This course will not apply to the Associate Degree. Three lecture hours per week. (No prerequisite. Grade Option) This course may be taken four times.

FIRE TECHNOLOGY

FIRE 1 **Fire Command 1C - I-Zone Fire**
Fighting for Company Officers
2.0 Units
The course is designed around the responsibilities of the Company officer at a wildland/urban interface incident. It will bring the structural Company Officer out of the city and into the urban/interface incident. In other words, from his or her comfort zone into an area that could very well be quire unfamiliar. This course is required for Fire Officer Certification by the Office of the State Fire Marshal. Thirty-two lecture, six laboratory hours for one week. This course will not apply to the Associate Degree. (Prerequisite: FIRE 72, Fire Command 1A and FIRE 66, I-200 Basic ICS. State mandated.) This course may be taken four times.

FIRE 3A **Certified Volunteer**
(formerly FT 117) **Fire Fighter** **3.0 Units**
The course, the first of two courses, is designed to prepare the student with information and skill development necessary to perform the tasks of a certified volunteer fire fighter within California. Provides a foundation of information and skill development necessary to enter college level courses in fire technology and/or a career in the fire service. Students must complete FIRE 3A and FIRE 3B to qualify for state certificate. Two lecture, four laboratory hours per week. This course will not apply to the Associate Degree. (Prerequisite: Must pass sport participation examination prior to entrance into class. State mandated. Grade Option.)

FIRE 3B **Certified Volunteer**
(formerly FT 117) **Fire Fighter** **3.0 Units**
The second of two courses, is designed to prepare the student with information and skill development necessary to perform the tasks of a certified volunteer fire fighter within California. Provides a foundation of information and skill development necessary to enter college level courses in fire technology and/or a career in the fire service. Students must complete FIRE 3A and FIRE 3B to qualify for state certificate. Two lecture, four laboratory hours per week. This course will not apply to the Associate Degree. (Prerequisite: Must pass sport participation examination prior to entrance into class. State mandated. Grade Option.)

FIRE 4A **Fire Fighter II Academy** **1.5 Units**
(formerly FT 97)
This is a series of lectures and manipulative drills designed to enhance and improve the fire fighter student's skills in fire behavior, forcible entry, vehicle fire fighting, flammable gases and liquids fire fighting techniques, handling massive casualty incidents and performance testing techniques. Designed for today's paid call and career fire fighter seeking full-time employment and/or advancement within a public or private fire protection organization. Sixteen lecture, 32 laboratory hours for one week. This course will not apply to the Associate Degree. (Prerequisite: FFI status, or completion of FFI Academy [FIRE 95], or recommendation of training officer from a fire protection organization. Credit/No Credit.) This course may be taken four times.

FIRE 4B **Response to Terrorism** **1.0 Unit**
(formerly FT 68.25)
This course will introduce the fire fighter student to the basic concepts for first awareness at the scene of a potential or actual terrorist incident and discusses safety and survival tactics. Sixteen lecture hours per week for one week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit)

FIRE 5B **Fire Command 2B-Management of**
(formerly FT 88) **Major Hazardous Materials**
2.0 Units
This course prepares the fire fighting student with the information necessary to successfully manage a major hazardous materials incident within their jurisdiction. Areas of discussion include: information and data bases for hazardous materials; organizations, agencies and institutions involved with hazardous materials response and research; planning for your community's hazardous materials problems; legislation, litigation and liabilities of hazardous materials responses. Forty lecture hours for one week. This course will not apply to the Associate Degree. (No prerequisite)

FIRE 5C **Fire Command 2C-High Rise**
(formerly FT 89) **Fire Tactics** **2.0 Units**
This course prepares the fire fighter student to manage a fire in small and large high rise buildings. Topics of discussion include: pre-fire planning; building inventory; problem identification; ventilation methods; water supply; elevators; life safety; fire fighting strategy and tactics; application of Incident Command System (ICS); and specific responsibilities of fire ground personnel. Case studies and simulation are features. Applicable to large and small fire departments. Forty lecture hours for one week. This course will not apply to the Associate Degree. (No prerequisite)

FIRE 5D **Incident Command System -**
(formerly FT 103) **Scene Manager** **1.5 Units**
This course provides important information needed for operating as a scene manager (incident commander) within the Incident Command System (ICS). Subjects include: incident briefing, incident planning, incident management, unified command, and incident demobilization. Twenty-four hours of lecture for one week. This course will not apply to the Associate Degree. (No prerequisite)

FIRE 5E **Strike Team Leaders,**
Dozers (S-335) **1.0 Unit**
This course prepares the fire fighter student to work as a strike team leader in charge of a task force or strike team of dozers for wild land fire control within the incident command system. This fire fighter course discusses duties, responsibilities, procedures and materials involved in the operation of the dozer strike team and the function of the strike team leader. National Wild Land Coordinating Group certified. Certification fee $5. This course will not apply to the Associate degree. Sixteen lecture hours per week for one week. This course will not apply to the Associate Degree. (Prerequisites: ICS-100, 200, 300/State mandated. Credit/No Credit) This course may be taken four times.

FIRE 5F **Inmate Fire Crew Supervisor**
3.0 Units
This course prepares the fire fighter student with the skills and information necessary to work within the Incident Command System (ICS) as an inmate fire crew supervisor. Responsibilities, duties and materials required to operate and manage an inmate fire crew are presented. Wild land fire tactics and strategies for hand crews and hand crew fire safety are feature. National Wild Land Coordinating Group certified. Certification fee, $5. This course will not apply to the Associate degree. Twenty lecture, twenty laboratory hours per week for two weeks. This course will not apply to the Associate Degree. (Prerequisites: FIRE 66, FIRE 86, ICS-100, 200, 300/State Mandated. Credit/No Credit) This course may be taken four times.

FIRE 5G **S-356 Supply Unit Leader** **1.0 Unit**
This course provides the fire fighter student with information to perform the tasks of the Supply Unit Leader within the Incident Command system (ICS). CDF certified. Northwest Coordinating Group approved. Sixteen lecture hours per week for one week. This course will not apply to the Associate Degree. (Prerequisites: I- 300, S-301. State Mandated. Credit/No Credit) This course may be taken four times.

FIRE 5H **Food Unit Leader** **1.5 Units**
This course prepares the fire fighter student with the skills and information necessary to work within the Incident Command System (ICS) as a food unit leader. Responsibilities, duties and materials required to operate and manage a food unit are presented. National Wild Land Coordinating Group certified. This course will not apply to the Associate degree. Twenty lecture,

twelve laboratory hours per week for one week. This course will not apply to the Associate Degree. (Prerequisite: FIRE 66, FIRE 86, ICS-100, 200, 300/State mandated. Credit/No Credit) This course may be taken four times.

FIRE 5I **Ground Support Unit Leader** **2.0 Units**

This course prepares the fire fighter student to work as a ground unit leader within the Incident Command System (ICS). Responsibilities of the ground unit leader, procedures and materials involved with the operation and function of the ground support unit are discussed. National Wild Land Coordinating Group certified. Certification fee is $5. Thirty-two lecture hours per week for one week. This course will not apply to the Associate degree. (Prerequisite: FIRE 86/State mandated. Credit/No Credit) This course may be taken four times.

FIRE 5J **Volunteer Fire Officer's Academy** **2.0 Units**

This course is designed to provide the information and skills necessary for the fire fighter/and or driver operator who desire to promote to the rank of company officer; for company officers who desire to remain current with innovative management, leadership and human relations techniques; and for training officers who are responsible for teaching and developing officers and future officer candidates. This course is designed for the fire fighter student with essential fire fighter skills. Forty lecture hours per week for one week. This course will not apply to the Associate degree. (No prerequisite) This course may be taken three times.

FIRE 6A **Basic Fire Engine Operation**
(formerly FT 63.1) **Academy, CDF** **3.5 Units**

This course provides the student with the information and skills to safely drive and operate fire apparatus and fire pumps and provide initial attack incident control capabilities according to California Department of Forestry standards and policies. Sixteen lecture, twenty-four laboratory hours per week for three weeks. This course will not apply to the Associate Degree. (Prerequisites: Successful completion of Basic Forest Firefighter course, valid class B (commercial or firefighter) California Driver's license with Tank and Air Brake Endorsements; successful completion of Hazardous Materials First Responder, Operational. State mandated. Credit/No Credit.) This course may be taken four times.

FIRE 6B **Fire Attack I: Set Standard For Excellence on the Fire Ground** **1.0 Units**

Fire Attack I is designed to provide the fire fighter with the latest information, tactics and strategies for combating structural fire incidents. Focus is on the decisions and responsibilities the first arriving company officer must consider to successfully mitigate the incident. This class will not apply to the Associate degree. Sixteen lecture hours per week for one week. (Prerequisites: Employment with a recognized fire protection agency in a position of company officer or acting company officer, or enrollment within the fire officer certification program accredited by California Fire Services Training and Education System (CFSTES) or National Fire Protection Association (NFPA) Standard 1021, Fire Officer Professional Standards. Grade Option) This class may be taken four times.

FIRE 6C **Leadership Fundamentals** **2.0 Units**

This course is designed to prepare the fire fighter student within the California Department of Forestry to take a new position of company officer by providing skills in supervision and management. Topics include motivation, communication, discipline, leadership, time management and team building. This course will not apply to the Associate degree. Thirty-two lecture hours per week for one week. (No prerequisite. Credit/No Credit) This course may be taken again only with a grade of "D" or lower.

FIRE 7 **First Responder - Medical**
(formerly FT 116) **2.0 Units**

This course provides manipulative and technical instruction in emergency care procedures, including examining the victim, observing the surroundings, maintaining an airway, controlling bleeding, treating shock, childbirth emergencies, performing manual lifts and carries, and interfacing with emergency medical technicians and paramedics. This course meets present public safety emergency care requirements for fire service personnel. Thirty-six hours lecture, ten hours laboratory for one week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit)

FIRE 7A **First Responder Medical,**
(formerly FT 117) **Refresher** **1.0 Unit**

A 24-hour refresher course approved by the State Board of Fire Services and California State Fire Training for Recertification of first responders to medical emergencies. 16 lecture hours, 8 laboratory hours for one week. This course will not apply to the Associate Degree. (No Prerequisite. Credit/No Credit) This course may be taken four times.

FIRE 8B **Emergency Medical Technician,**
(formerly FT 118) **Refresher** **0.5 Unit**

A 24-hour refresher course for fire service students who require recertification for Emergency Medical Technician I, State Fire Marshal or Fire Service certificates who do not operate ambulances or transport patients. Course approved by the State Board of Fire Services and State Fire Marshal's office. Eight lecture, 16 laboratory hours per week for one week. This course will not apply to the Associate Degree. (Prerequisite: Must possess valid EMT I, State Fire Marshal's certificate-State regulation. Credit/No Credit) This course may be taken four times.

FIRE 8C **EMT-ID, Defibrillation** **0.5 Unit**
(formerly FT 81A)

This course will provide the Emergency Medical Technician (EMT-1) training in the skill of defibrillation (D). Course content is based on California State Department of Health requirements, as delineated in title 22 of the California Administrative Code, Division 9, Chapter 2, Section 10064. Eight lecture hours per week for one week. This course will not apply to the Associate Degree. (Prerequisites: possess a current Basic Care Life Support (BCLS) card, possess certification as an EMT-1, and be currently employed with an approved EMT-I D provider. State mandated. Credit/No Credit)

FIRE 9 **Fire Control III, Structural Fire**
(formerly FT 114) **Fighting, Instructor** **2.0 Units**
This 32-hour course prepares the fire fighter student to manage and conduct a state certified Fire Control III training exercise. Designed for fire department training officers and training staff, this course assumes a basic knowledge of fire fighting skills and organizational concepts. Forty lecture hours for one week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit)

FIRE 9A **Fire Control IV, Oil and Gas Fire**
(formerly FT 115) **Fighting Techniques** **0.5 Unit**
This course provides the fire fighter student with live fire situations to gain skills and experience in combating fires involving liquefied petroleum gas and flammable liquids. Subjects include flammable liquid fire behavior, safety on the fire ground, extinguishing agents, flammable liquid/gas transportation vehicles, waterflow requirements and actual fire extinguishing exercises. A basic knowledge of fire fighting skills and knowledge plus access to appropriate safety equipment and clothing is presumed. Ten lecture hours for one week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit)

FIRE 10 **Fire Fighter Skills Maintenance**
(formerly FT 101) **4.0 Units**
A series of lectures and manipulative drills designed to provide maintenance of skills learned, including updates in technology relating to fire department organization, hoses, ladders, tools and equipment, salvage, fire chemistry, extinguishers and agents, fire control, prevention, arson, crowd and traffic control, mutual aid, communications, fire safety and emergency rescue techniques. Two lecture, six laboratory hours per week. This course will not apply to the Associate Degree. (Prerequisite: FIRE 100 and FIRE 90 or FIRE 95 or equivalent. Employment as career fire fighter or paid call fire fighter recommended)

FIRE 10A **Skills Maintenance For Paid**
(formerly FT 102) **Call Fire Fighter** **1.5 Units**
A series of lectures and manipulative drills designed to provide maintenance of skills learned, including updates in technology relating to fire department organization, hoses, ladders, tools and equipment, salvage, fire chemistry, extinguishers and agents, fire control, prevention, arson, crowd and traffic control, mutual aid, communications, fire safety and emergency rescue techniques. One lecture, two hours laboratory per week. This course will not apply to the Associate Degree. (No prerequisite)

FIRE 10B **Wildland Fire Fighter's Skills**
(formerly FT 59.1) **Maintenance** **1.5 Units**
This course provides the fire fighter student with new information and skill development to maintain efficiency and effectiveness as a wildland fire fighter. New protocols, procedures and equipment are presented and student demonstrates proficiency in using tools, tactics and strategies for fire control. Sixteen lecture and twenty-four laboratory hours per week for one week. This course will not apply to the Associate Degree. (Prerequisites: Employment as a wildland fire fighter or fire fighter serving a community with wildland or interface fire conditions. State mandated. Credit/No Credit.) This course may be taken four times.

FIRE 10D **Hand Crew Fire Fighter Skills**
(formerly FT 60.2) **Maintenance** **1.5 Units**
This course provides the fire fighter student with new information and skill development to maintain efficiency and effectiveness as a wildland hand crew fire fighter. New policies, procedures and equipment are presented and student demonstrates proficiency in using tools, tactics and strategies for constructing and maintaining a fire line and other related fire control tactics and operations. CDF certified. Sixteen lecture, twenty-four laboratory hours per week for one week. This course will not apply to the Associate Degree. (Prerequisites: Employment as a hand crew fire fighter with a modern fire service agency. State mandated. Credit/No Credit.) This course may be taken four times.

FIRE 11 **Low Angle Rescue** **1.0 Unit**
(formerly FT 110)
This course is designed to equip the student with the information, techniques and methods for utilizing rope, webbing, hardware friction devices, and litters in low angle rescue situations. Topics include rope and related equipment, anchor systems, safety lines, stretcher lashing and rigging, mechanical advantage, single line and two line rescue systems. This course is designed for the fire fighter student with essential fire fighting skills. Sixteen lecture hours for one week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit)

FIRE 11A **Rescue Systems I** **1.5 Units**
The 40-hour State Fire Rescue Systems I course is designed to provide the student with the ability to apply basic search and rescue skills, approach rescue situations safely and understand the organizational concerns at a structural collapse incident. Upon completion of the course, the student will receive a California State Fire Marshals Certificate, which is the basic requirement for other rescue classes. This course will not apply to the Associate degree. Twenty-four lecture, sixteen laboratory hours per week for one week. (No prerequisite. Credit/No Credit) This course may be taken again only with a grade of "D" or lower.

FIRE 11B **Confined Space Awareness**
0.5 Unit
This course provides the fire fighter student with the definitions and conditions that constitute a confined space situation. Information on how those conditions create hazards and impact the fire fighter plus principles of confined space safety are featured. This course will not apply to the Associate degree. Eight lecture hours per week for one week. (No prerequisite. Credit/No Credit) This course may be taken again only with a grade of "D" or lower.

FIRE 15 **S-244, Field Observer/**
(formerly FT 168.15) **Display Processor** **1.5 Units**
This course provides the fire fighter student with the information to perform the duties, responsibilities, procedures and to utilize the appropriate materials when acting as the field observer/display processor within the Incident Command System (ICS). North West Coordinating Group certified. Twenty-four lecture, sixteen laboratory hours for one week. This course will not apply to the Associate Degree. (Prerequisites: FIRE 60G. State mandated. Credit/No Credit)

FIRE 16 Technical Specialist, Crew
(formerly FT 168.16) 1.0 Unit
This course provides the fire fighter student with the information to perform the position of Technical Specialist for hand crews when operating within the Incident Command System (ICS). California Department of Forestry certified. Sixteen lecture, twenty-four laboratory hours for one week. This course will not apply to the Associate Degree. (Prerequisites: FIRE 66.1. State mandated. Credit/No Credit) This course may be taken four times.

FIRE 17 Basic Fire Crew, Captain 2.0 Units
(formerly FT 168.17)
This course is designed for the recently appointed fire crew captain assigned to camp programs. The course will focus on group dynamics, supervision techniques, recognizing gang symbology and signals, Department of Corrections regulations, fire crew configurations and tactics. CDF certified. Thirty-two lecture hours per week for one week. This course will not apply to the Associate Degree. (Prerequisite: Appointment to the fire crew captain position. State mandated. Credit/No Credit) This course may be taken four times.

FIRE 18 Class A Foam Operations 1.0 Unit
(formerly FT 168.18)
This course is an introduction to Class A fire fighting foams used on wildland fires. Classroom principles and field application techniques are featured. CDF certified. Sixteen lecture hours per week for one week. This course will not apply to the Associate Degree. (Prerequisites: FIRE 80. State mandated. Credit/No Credit) This course may be taken four times.

FIRE 20 I-333 Strike Team Leader, Crew
(formerly FT 120) 1.0 Unit
This course will provide the fire fighter student with the information necessary to perform as a strike team leader in charge of a hand crew at wildland fire suppression operations. Sixteen lecture hours for one week. This course will not apply to the Associate Degree. (No prerequisite.) This course may be taken four times.

FIRE 21 California Department of Forestry
(formerly FT 121) Firing Officer S-234 1.5 Units
This course is designed to train fire fighter supervisors who have a need to know how to set a fire or backfire to accomplish fire containment and control in wildland fire suppression. Twenty-four lecture, sixteen laboratory hours for one week. This course will not apply to the Associate Degree. (No prerequisite.) This course may be taken four times.

FIRE 21A Firing Methods and Procedures
(formerly FT 121.1) 1.5 Units
This course provides the fire fighter student with information about firing techniques and related firing devices used in wild land fire suppression. Incudes basic safety instructions and procedures to follow when immediate and unplanned back firing or burning out of an area is deemed necessary for wild land fire control. CDF certified. North West Coordinating Group approved. Twenty-four lecture hours per week for one week. This course will not apply to the Associate Degree. (Prerequisites: FIRE 66, FIRE 80A. State mandated. Grade Option)

FIRE 26 S-205, Interface Operations
(formerly FT 168.26) 1.0 Unit
This course is designed to prepare the fire fighter student with the skills and techniques to fill the training needs for initial attack commanders and company officers confronting wild land fires that threaten life, property, and improvements within the interface areas of southern California. Topics include: size-up, initial strategy and action plan, structure triage, action plan assessment, public relations and safety. Twelve lecture, twelve laboratory hours per week for one week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit) This course may be taken four times.

FIRE 27 S-403, Information Officer
(formerly FT 168.27) 2.0 Units
This course is designed to prepare the fire fighter student with the skills and techniques to fill the Incident Command System (ICS) position of Information Officer. Topics include duties and responsibilities of the Information Officer, working with the media, working with the public and other agencies. Thirty-two lecture hours per week for one week. This course will not apply to the Associate Degree. (Prerequisite: FIRE 66 and FIRE 86. State mandated. Credit/No Credit) This course may be taken four times.

FIRE 28 I-342, Document Unit Leader
(formerly FT 168.28) 0.5 Unit
This course is designed to provide skills that enable the fire fighter student to perform the position of Document Unit Leader within the Incident Command System (ICS). Procedures of the Document Unit Leader, responsibilities and materials required are presented. Eight lecture hours per week for one week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit) This course may be taken four times.

FIRE 29 S-430, Operations Section Chief
(formerly FT 168.29) 2.0 Units
This course is designed to prepare the fire fighter student with the skills and techniques to fill the Incident Command System (ICS) position of Operations Section Chief. Topics discussed include: information gathering, interaction with the command staff and general staff, incident action plan development, operation period briefing, daily schedule, and demobilization. Thirty-two lecture hours per week for one week. This course will not apply to the Associate Degree. (Prerequisite: I-300, S290, Certification as Strike Team Leader or Division Supervisor. State mandated. Credit/No Credit) This course may be taken four times.

FIRE 30 Instruction Techniques for
(formerly FT 130) Company Officers 1.0 Unit
A National Fire Academy course for fire fighter students who want to improve their skills in training fire fighters and students of fire safety including the public. Applies toward National Fire Protection Association Standard 1041, Professional Qualifications of Fire Service Instructors. Sixteen lecture hours for one week. This course will not apply to the Associate Degree. (No prerequisite.) This course may be taken four times.

FIRE 30A **National Fire Academy Public**
(formerly FT 131) **Fire Education Planning 1.0 Unit**
This National Fire Academy course is designed to provide the fire fighter student with the information and concepts to provide a successful public fire safety education program within their community. Sixteen lecture hours for one week. This course will not apply to the Associate Degree. (No prerequisite.) This course may be taken four times.

FIRE 33 **Fire Line Emergency Medical**
(formerly FT 181) **Technician (EMT) Academy 1.0 Unit**
This course is designed to prepare the fire fighter EMT to safely operate at a major wild land fire incident at the fire line location. Topics discussed include duties and responsibilities of the fire line EMT, equipment needs, helicopter safety, incident command system organization, and review of treatment for common fire line injuries and use of makeshift aids. Twelve lecture, twelve laboratory hours per week for one week. This course will not apply to the Associate Degree. (Prerequisites: Current EMT certification and employment in public or private fire service organization. State mandated. Credit/No Credit) This course may be taken four times.

FIRE 40 **Fire Fighter Entrance Examination**
(formerly FT 140) **Techniques 3.0 Units**
This course is designed to prepare the student to take and successfully pass the entrance level fire fighter examination process. Topics discussed include: seeking employment opportunities, the application process, the various examinations given to applicants, oral interviews, and other aspects of the examination process. Three lecture hours per week. This course will not apply to the Associate Degree. Offered Fall, Spring (No prerequisite. Grade Option) This course may be taken two times.

FIRE 40A **Fire Fighter Physical Agility**
(formerly FT 141) **Entrance Examination**
Techniques 1.0 Unit
This course is designed to prepare the student to take and successfully pass the entrance level fire fighter physical agility examination through physical conditioning and specificity training. Emphasis on physical conditioning and exercise. Three laboratory hours for per week. This course will not apply to the Associate Degree. Offered Fall, Spring. (No prerequisite. Credit/No Credit) This course may be taken four times.

FIRE 40F **Building Construction for**
(formerly FT 111) **Fire Suppression**
Forces/Wood/Ordinary 1.0 Unit
This course provides the fire fighter student with the principles of wood and ordinary construction as they apply to the fire service. The primary emphasis is on improving the fire fighters ability to ensure fire safety on the fire ground by recognizing common causes and indicators of building failure, collapse and other hazards related to building construction. Designed to improve the operational effectiveness of the fire officer and fire fighter by being able to predict the overall reaction of a building to fire conditions. Sixteen lecture hours for one week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit)

FIRE 50 **Fire Service Supervision -**
(formerly FT 50) **Increasing Personal Effectiveness**
1.0 Unit
This National Fire Academy course is designed to increase the fire fighter student's effectiveness as a manager and a leader by presenting current research on management, leadership, stress, and time management and explaining how to adapt this information to their own specific management context. Accredited by State Fire Marshal's Office. 17 lectures for one week. (No Prerequisite. Credit/No Credit) This course may be taken four times.

FIRE 51 **Fire Service Supervision -**
(formerly FT 51) **Increasing Team Effectiveness**
1.0 Unit
This National Fire Academy approved course is designed to increase the student's effectiveness as team leaders and members of the fire service by demonstrating how communication, motivation, counseling, and the principles of conflict resolution and group dynamics can be used to promote efficient group functioning and members satisfaction. Accredited by State Fire Marshal's Office. 17 lectures for one week. (No Prerequisite. Credit/No Credit) This course may be taken four times.

FIRE 52 **Commanding the Initial Response**
(formerly FT 52) **1.0 Unit**
This National Fire Academy course is designed to give the fire fighter student information and skills necessary to establish command, perform size-up, develop and implement an action plan, transfer command, and organize an incident using an effective command system. Accredited by State Fire Marshal's Office. 16 lectures for one week. (No Prerequisite. Credit/No Credit) This course may be taken four times.

FIRE 53 **Hazardous Materials First**
(formerly FT 53) **Responder Operational**
Decontamination 0.5 Unit
This course provides the student with the information and skills to safely and competently decontaminate people and equipment at a hazardous materials (haz mat) incident. California Specialized Training Institute (CSTI) certified. Meets federal and state requirements as listed in 29 CFR 1910.120 (q), CCR 5192 (q), NFPA472. $10.00 fee for CSTI certificate. Eight lecture hours per week for one week. (Prerequisite: FIRE 59. Credit/No Credit)

FIRE 54 **Fire Command 2E** **2.0 Units**
(formerly FT 54)
This course prepares the fire fighter student to manage the large wildland fire incident. Topics of discussion include: California's wildland fire problem, fire safety, weather effects, wildland fuel behavior, attack methods, using support equipment, strategy and tactics, air attack operations, and using maps. Simulation is featured. Chief Officer certified. Forty lecture hours per week for one week. (No prerequisite. Credit/No Credit) [R]

FIRE 55 **Fire Instructor 2A** **2.5 Units**
(formerly FT 55)
This course is designed to provide the fire technology student the skills to evaluate students. Topics include: construction of written (technical knowledge) and performance (manipulative skills) tests, as well as test planning, test analysis, test security, and evaluation of test results to determine instructor and student effectiveness. Essential course for writing valid, objective tests. Forty lecture hours per week for one week. (Prerequisite: FIRE 70 and FIRE 71. State mandated. Grade Option) This course may be taken two times.

FIRE 56 **Fire Instructor 2B** **2.5 Units**
(formerly FT 56)
This course is designed for the fire technology student who require skills leading groups of people in staff meetings, group discussions, and training sessions to solve problems, determine objectives, generate new ideas and provide instruction to subordinates. Forty lecture hours per week for one week. (No prerequisite. Grade Option) This course may be taken two times.

FIRE 58 **Introduction to Emergency Management** **4.0 Units**
This course provides the history, terminology, goals and mission of the Emergency Management occupation and profession. The roles, responsibilities, lines of authority and characteristics of effective program managers are presented. Professional associations, federal support programs, model state practices and functional activities are also discussed. Twelve lecture hours per week for six weeks. (No Prerequisite. Grade Option)

FIRE 58A **Community Disaster Planning** **4.0 Units**
This course provides the student with the information and details to develop a community or company disaster plan. Topics of discussion include: developing a disaster plan for a company or community, developing a hazard analysis and capability assessment, building consensus, leveraging political assets to insure community readiness, and the process of adoption and revision. Students also will receive certificates from the Federal Emergency Management Agency (FEMA): IS-15, Special Event Contingency Planning; IS-3, Radiological Emergency Preparedness; IS-324, Community Hurricane Planning; IS-11, Animals in Disasters, Community Planning. Twelve lecture hours per week for six weeks. (No Prerequisite. Grade Option)

FIRE 58B **Emergency Management Response** **4.0 Units**
This course provides the student with the information and details of coordinating and operating a community emergency operations center (EOC). How to coordinate the resources of a community or company, identify specific threats, and the operational requirements of an EOC are presented. Students will also receive certificate of completion from the Federal Emergency Management Agency (FEMA): IS-275, The Role of the EOC in Community Preparedness, Response and Recovery; IS-271, Anticipation of Weather and Community Risk; IS-301, Radiological Emergency Response; Q-534, Emergency Response to Terrorism; IS-288, Managing Volunteer Resources. Twelve lecture hours per week for six weeks. (No Prerequisite. Grade Option)

FIRE 58C **Emergency Management Recovery** **4.0 Units**
This course provides the student with the information and details of making the transition from response to recovery to a company disaster. Case studies examine mass fatality management, earthquakes, flooding and terrorism incidents. Students receive certificates of completion from the Federal Emergency Management Agency (FEMA): IS-7, Citizens Guide to Disaster Assistance; IS-208, State Disaster Management; IS-600, Special Considerations for FEMA Public Assistance Projects; IS-630, Introduction to the Public Awareness Process. Twelve lecture hours per week for six weeks. (No Prerequisite. Grade Option)

FIRE 58D **Introduction to Mitigation for Disasters** **4.0 Units**
This course provides the student with the information and details to plan and implement mitigation strategies for a community or business. Mitigation includes all activities that improve a community or business's survivability from an identified threat. Identifying needs, obtaining funding and executing mitigation programs are the objectives of this course. Students also will receive certificates of completion from the Federal Emergency Management Agency (FEMA): IS-393, Introduction to Mitigation; IS-394, Mitigation for the Homeowner; IS-8, Building for the Earthquake of Tomorrow; IS-9, Managing Floodplain Development. Twelve lecture hours per week for six weeks. (No Prerequisite. Grade Option)

FIRE 59 **Basic Wildland Fire Fighter**
(formerly FT 59) **Academy** **3.0 Units**
This course presents information and skill development to students seeking employment and a career with a wildland fire agency. Certificates awarded to successful graduates are applicable to all state and federal wildland fire agencies. North West Coordinating Group (NWCG) certified. California Department of Forestry (CDF) certified. Sixteen lecture and 24 laboratory hours per week for two weeks. (No prerequisite. Credit/No Credit. Recommended preparation: Good attitude and willingness to work hard.)

FIRE 60B **Advanced Incident Command**
(formerly FT 66.2) **System, I-400** **1.0 Unit**
This course will emphasize large scale organization development, roles and relationships of the primary command staff; the planning, operational, logistical and fiscal considerations related to command of a large and complex incident. Fire Service Training and Education Program (FSTEP) certified. There is a $5.00 fee for certificate. Sixteen lecture hours per week for one week. (Prerequisites: FIRE 66.1, or employment within a recognized fire service agency at the rank of company officer or above. State mandated. Credit/No Credit)

FIRE 60C **Incident Safety Officer, S-401**
(formerly FT 68.8) **1.5 Units**
This course prepares the fire fighter student to work as a safety officer within the Incident Command System, with emphasis on unsafe and hazardous conditions at emergency scenes. Fire Service Training and Education Program (FSTEP) certified. There is a $5.00 fee for certificate. Twenty-four hours lecture per week for one week. (Prerequisites: FIRE 66.1, FIRE 80A, FIRE 6OE or employment within a recognized fire service agency at the rank of company officer or above. State Mandated. Credit/No Credit)

FIRE 60E **Division/Group Supervisor,**
(formerly FT 66.3) **S-339** **1.0 Unit**
This course will provide the information necessary to support the specific tasks of the Division/Group Supervisor position within the Incident Command System. North West Coordinating Group certified. Sixteen lecture hours per week for one week. (Prerequisites: FIRE 60G, FIRE 66, FIRE 86. State Mandated. Credit/No Credit)

FIRE 60F **ICS-334 Strike Team Leader-Engine**
(formerly FT 68) **1.0 Unit**
This course describes and explains the basic responsibilities of an Engine Strike Team Leader. Topics of discussion include: the strike team concept; types of strike teams; pre-incident responsibilities; assembly and travel; incident arrival; check-in; assigned/available status; out-of-service status; demobilization/release. Sixteen lecture hours per week for one week. (No prerequisite)

FIRE 60G **Incident Commander, Initial**
(formerly FT 68.2) **Attack, S-200** **1.0 Unit**
This course provides information and techniques to prepare the fire fighter student to command an initial attack at a wildland fire and incorporate resources effectively. North West Coordinating Group (NWCG) certified. Sixteen lecture hours per week for one week. (Prerequisites: FIRE 66, FIRE 80. State mandated by California Fire Service Training and Education (CFSTES) and Incident Command system (ICS) by NWCG, or experience as a fire fighter working within the ICS. Credit/No Credit)

FIRE 60H **Incident Commander, Extended**
(formerly FT 68.3) **Attack, S-300** **1.0 Unit**
This course will provide the fire fighter student the information necessary to command an incident that goes beyond the initial attack stage and incorporates additional resources. North West Coordinating Group certified. Sixteen lecture hours per week for one week. (Prerequisites: FIRE 60G, FIRE 66, FIRE 86. State mandated. Credit/No Credit)

FIRE 61 **Rescue Practices** **3.0 Units**
(formerly FT 61)
Rescue practices will provide training for emergency service personnel in reaching victims injured in collisions, cave-ins, collapse, or inaccessible areas such as mountainous terrain. Course includes training in both light and heavy auto extrication and packaging victims for transport; recovery of victims of earth collapse such as trench rescue; basic repelling techniques and use of the basket stretcher. Two lecture, three laboratory hours per week.

FIRE 61A **Medical Unit Leader, S-359**
(formerly FT 68.6) **0.5 Unit**
This course prepares the fire fighter student to work as a medical unit leader within the Incident Command System. Responsibilities, procedures and materials involved with the operation and function of the Medical Unit are discussed. North West Coordinating Group certified. Eight lecture hours per week for one week. (Prerequisites: FIRE 81 and FIRE 66.1. State mandated. Credit/No Credit)

FIRE 61B **Basic Air Operations, S-270**
(formerly FT 68.7) **1.0 Unit**
This course will provide the fire fighter student with a survey of uses of aircraft in fire suppression and how to conduct themselves in and around aircraft. Management policies, regulations, and procedures which govern aviation operations in fire suppression will be examined. Aircraft tactical capabilities, logistical uses and specifications for helicopter landing areas are discussed. North West Coordinating Group certified. Sixteen lecture hours per week for one week. (Prerequisite: FIRE 66. State mandated. Credit/No Credit)

FIRE 61C **Helispot Manager, S-272** **0.5 Unit**
(formerly FT 68.9)
This course will provide the fire fighter student with an overview and the information about responsibilities, procedures and materials required to function as a Helispot Manager within the Incident Command System. North West Coordinating Group certified. Eight lecture hours per week for one week. (Prerequisite: FIRE 60G. State Mandated. Credit/No Credit)

FIRE 61D **Resource Unit Leader/**
(formerly FT 68.10) **Demobilization Unit Leader**
2.0 Units
This course prepares the fire fighter student to work as a resource unit leader/demobilization unit leader within the Incident Command System. The responsibilities, duties and materials required to function in this position are discussed. North West Coordinating Group certified. Thirty-two lecture hours per week for one week. (Prerequisites: FIRE 61E and FIRE 66.1. State mandated. Credit/No Credit)

FIRE 61E **Check In/Status Recorder, S-248**
(formerly FT 68.12) **0.5 Unit**
This course will provide the fire fighter student with the information required to function in the position of Check In/Status Recorder within the Resources Unit of the Incident Management System (ICS). North West Coordinating Group certified. Eight lecture hours per week for one week. (Prerequisite: FIRE 60G. State mandated. Credit/No Credit)

FIRE 61F **Staging Area Manager** **0.5 Unit**
(Formerly FT 68.13)
This course will provide the fire fighter student with information about the duties, responsibilities and materials required to function as a staging area manager. Fire Service Training Education Program (FSTEP) certified. Eight lecture hours for one week. (Prerequisite: FIRE 60G, S-200. Credit/No Credit)

FIRE 61G **Fire Line Emergency**
(formerly FT 68.11) **Medical Technician (EMT) 0.5 Unit**
This eight-hour course is designed to prepare the fire fighter, Emergency Medical Technician to safely operate at a major wildland fire incident at the fire line location. Course covers duties and responsibilities of the Fire Line EMT; equipment needs, helicopter safety, the Incident Command System (ICS) organization, review of treatments for common fire line injuries, and use of makeshift aids. Eight lecture hours per week for one week. (Prerequisites: FIRE 81, current EMT-I certification (state mandated per CFSTES policy), employment as a fire fighter in a public or private fire service organization. Credit/No Credit) This course may be taken four times.

FIRE 63 **Apparatus Driver/Operator lA**
(formerly FT 63) **1.5 Units**
This course is designed to provide the student with information on driver techniques for emergency vehicles and techniques of basic inspection and maintenance for emergency vehicles, including actual driving exercises under simulated emergency situations. Twenty-four lecture hours, sixteen laboratory hours per week for one week. (No prerequisite) This course may be taken three times.

FIRE 64 **Apparatus Driver/Operator lB**
(formerly FT 64) **1.5 Units**
This course is designed to provide the student with information on driver techniques for emergency vehicles and techniques of inspection, operation of fire pumps, including actual driving and pumping of water under simulated emergency exercises. Twenty-four lecture hours, sixteen laboratory hours per week for one week. (No prerequisite) This course may be taken three times.

FIRE 65 **Basic Wildland Fire Control**
(formerly FT 60) **2.0 Units**
Basic wildland hand-crew training. The course covers fire suppression organizations, fire behavior, meteorology, suppression techniques, and safety. Meets federal fire agencies requirements for employees and mutual aid cooperators. Seven lecture, four laboratory hours per week for four weeks. Offered Spring. (No prerequisite)

FIRE 65O **Campbell Prediction System**
1.0 Unit
This course is designed for the fire fighter and fire officer who want to know why, when and where wildland fire behavior will change, and how to make these predictions to apply safe and effective tactics or evacuate a dangerous area and learn a system to effectively communicate these predictions to others. California Department of Forestry certified. This course will not apply to the Associate degree. Sixteen lecture hours per week for one week. (No prerequisite. Credit/No Credit) This course may be taken four times.

FIRE 66 **Introduction to Incident**
(formerly FT 66) **Command** **1.0 Unit**
This course provides an introduction to, and an overview of the Incident Command System and introduces the participants to the NIMS (National Interagency Incident Management System). Sixteen lecture hours per week for one week. (No prerequisite)

FIRE 67 **Trench Rescue** **0.5 Unit**
(formerly FT 67)
This course is designed to provide hands on techniques for fire service personnel to effect a rescue at an excavation or trench cave-in. Topics include: critical considerations while responding to trenching emergencies; evaluation of cave-in scenes; basic life support procedures and temporary protection for victims; specialized tool usage; shoring techniques; and below grade rescue safety procedures. Eight lecture hours for one week. (No prerequisite)

FIRE 69 **Building Construction for**
(formerly FT 69) **Fire Protection** **3.0 Units**
This course is the study of the components of building construction that relates to fire safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at fires. The development and evolution of building and fire codes will be studied in relationship to past fires, in residential, commercial, and industrial occupancies. Three lecture hours per week. (No prerequisite)

FIRE 70 **Instructor lA - Instructional**
(formerly FT 70) **Techniques Part I** **2.0 Units**
This is the first of a two-course series and is the standard State Board of Fire Services accredited course as offered in community colleges. Topics include the occupational analysis, course outlines, concepts of learning, levels of instruction, behavioral objectives, using lesson plans, the psychology of learning, and evaluation of effectiveness. Activities include student teaching demonstrations. This course applies to Fire Officer, Fire Instructor I, and Public Education Officer I certifications. Thirty-six lecture hours per week for one week. (No prerequisite)

FIRE 71 **Instructor lB - Instructional**
(formerly FT 71) **Techniques Part 2** **2.0 Units**
This is the second in a two-course series and is the standard State Board of Fire Services accredited course as offered in community colleges. Topics include preparing course outlines, establishing levels of instruction, constructing behavioral objectives and lesson plans, instructional aid development, fundamentals of testing and measurements, tests planning, evaluation techniques and tools. Activities include student teaching demonstrations. This course applies to Fire Officer, Fire Instructor I, and Public Education Officer II certifications. Thirty-six lecture hours per week for one week. (No prerequisite)

FIRE 72 **Fire Command lA -**
(formerly FT 72) **Command Principles for**
Company Officers **2.0 Units**
This course provides the instruction and simulation time to the participants pertaining to the initial decision and action processes at a working fire. The course includes areas of discussion on the fire officer, fire behavior, fireground resources, operations and management. This course applies to Fire Officer certification. 36 lecture hours for one week. Offered Fall. (No prerequisite)

FIRE 73 **Fire Command 1B - Hazardous**
(formerly FT 73) **Materials Command Principles for Company Officers 2.0 Units**

This course provides instruction in tactics and strategies and scene management principles for incidents involving hazardous materials. The course includes areas of discussion on identification and hazard mitigation, decontamination, protective clothing, environmental concerns, and legal issues. This course applies to Fire Officer certification. 36 lecture hours for one week. (No prerequisite. FIRE 66 recommended)

FIRE 74 **Fire Prevention 1A - Fire Inspection**
(formerly FT 74) **Practices 2.0 Units**

This course provides a broad, technical overview of fire prevention codes and ordinances, inspection practices, and key hazards. Some areas of discussion include flammable and combustible liquids and gases, explosives, fireworks, extinguishing systems and others. This course applies to Fire Officer, Fire Prevention Officer I, and Public Education Officer I certifications. 36 lecture hours for one week. (No prerequisite)

FIRE 75 **Fire Prevention 1B -**
(formerly FT 75) **Code Enforcement 2.0 Units**

This course focuses on the ordinances and statutes that pertain to fire prevention practices in California. Some topics of discussion include building construction and occupancy, evacuation procedures, inspection reports, and processing plans. This course applies to Fire Officer, Fire Prevention Officer I, and Public Education Officer I certifications. 36 lecture hours for one week. (No prerequisite)

FIRE 76 **Management 1- Supervision**
(formerly FT 76) **for Company Officers 2.0 Units**

This course is designed to prepare or enhance the first line supervisor's ability to supervise subordinates. It introduces key management concepts and practices utilized in the California Fire Service. The course includes discussions about decision making, time management, leadership styles, personnel evaluations, and counseling guidelines. This course applies to Fire Officer certification. 36 lecture hours for one week. (No prerequisite)

FIRE 77 **Investigation 1A - Fire Cause**
(formerly FT 77) **and Origin Determination 2.0 Units**

This course provides the student with an introduction and basic overview of fire scene investigation. Provides information on fire scene indicators, and introduces fire service personnel to the concepts of fire investigation. Applies to Fire Officer and Fire Investigator I certification. 36 lecture hours for one week. (No prerequisite)

FIRE 78 **Fire Prevention 1C - Flammable**
(formerly FT 78) **Liquids and Gases 2.0 Units**

This course provides the students with information on how to safely store, handle, dispense and transport flammable liquids and gases. Topics of discussion include: bulk handling and storage requirements, transportation of flammable and combustible liquids and gases, fire code requirements for storage outdoors, indoors, inside special rooms and portable container requirements. Applies towards Fire Prevention Officer I certification. 36 lecture hours for one week. (No prerequisite)

FIRE 79 **Fire Investigation 1B 2.0 Units**
(formerly FT 79)

This course provides the participants with information to achieve a deeper understanding of fire investigation. This course builds on FIRE 77 Investigation IA and adds topics of discussion including the juvenile fire setter, report writing, evidence collection and preservation procedures. 36 lecture hours for one week. (No prerequisite)

FIRE 80 **Introduction to Wildland**
(formerly FT 68.1) **Fire Behavior, S-190 0.5 Unit**

This course will familiarize the student with the basic concepts and components of wildland fire behavior. North West Coordinating Group (NWCG) certified. Eight lecture hours per week for one week. (No prerequisite. Credit/No Credit)

FIRE 80A **Intermediate Wildland**
(formerly FT 68.4) **Fire Behavior, S-290 2.0 Units**

This course will present to fire fighting students the skills and information necessary to prepare them for safe and effective operations at wildland fires. Meets the training requirements to work in the Incident Command System (ICS) Operations Section, as a Single Resource or Strike Team Leader. North West Coordinating Group (NWCG) certified. Thirty-two lecture, eight laboratory hours per week for one week. (Prerequisites: FIRE 80. State mandated by California Fire Service Training and Education (CFSTES) and Incident Command System by North West Coordinating Group, or experience as a fire fighter working within the ICS. Credit No/Credit)

FIRE 80B **Wildland Fire Suppression**
(formerly FT 68.5) **Tactics, S-336 2.0 Units**

This course will provide the fire fighter student the information necessary to operate within the Operations Section of the Incident Command System. North West Coordinating Group certified. Thirty-two lecture hours per week for one week. (Prerequisites: FIRE 80A, FIRE 66. State mandated. Credit/No Credit)

FIRE 81 **Emergency Medical Technician I**
(formerly FT 81) **8.0 Units**

The first phase of training in the Emergency Medical Technician I career for fire fighters and other emergency first responders. Covers all techniques of emergency medical care considered the responsibility of the Emergency Medical Technician I. Course emphasizes the development of student skills in recognition of symptoms of illness and injuries and proper procedures of emergency care. Course includes certification in professional CPR (Cardio Pulmonary Resuscitation). Approved by the California State Fire Marshal's Office and the State Board of Fire Services. Certificate from Fire Service Training and Education Program (FSTEP) awarded. Thirty lecture, seven laboratory hours per week for five weeks. (Prerequisite: Students must complete TB test and provide copy of immunization records prior to clinical training.) This course my be repeated.

FIRE 81B **EMT-I, Continuing Education**
(formerly FT 81.4) **Recertification 0.5 Unit**

This course provides the student with the information skills development and testing requirements for recertification qualification for Emergency Medical Technician 1 and qualifies for Continuing Education credit. Four lecture hours, twelve labo-

ratory hours per week for one week. (Prerequisite: EMT-1. State and county mandated. Credit/No Credit.) This course may be taken four times.

FIRE 82 (formerly FT 82) **Hazardous Materials First Responder Awareness 0.5 Unit**
This course is designed to provide the student with information essential to those people who are likely to be first responders at hazardous materials incidents. Designed to meet federal and state requirements for awareness training for employees handling and using hazardous materials. Eight lecture hours, one laboratory hour per week for one week. (No prerequisites) This course may be taken three times.

FIRE 82A (formerly FT 80) **Hazardous Materials First Responder Operational 1.5 Units**
To provide participants who are likely first responders with the necessary awareness of safe and competent hazardous materials response techniques. Participants shall also be able to provide safe identification and assessment evaluation, as well as select safe containment and protective actions to mitigate the hazardous materials incident whenever safety and resource capabilities permit. Twenty-four hours of lecture total. Offered Fall, Spring. (No prerequisite) This course may be taken four times.

FIRE 83 (formerly FT 83) **Fire Management 2C, Labor and Personnel Management 2.0 Units**
This course provides the fire fighter student with knowledge and insight into fire fighting personnel, human resources, and diversity management. Legal mandates, labor relations, and related areas are explored with a focus on human resource management and individual employee development strategies. Thirty-six lecture hours for one week. (No prerequisites)

FIRE 84 (formerly FT 84) **Fire Command 2A-Command Tactics at Major Fires 2.0 Units**
This course is designed to provide the student with the management techniques and use of the Incident Command System (ICS) necessary for the efficient and safe command of large fires, multiple alarms and emergencies requiring large numbers of personnel and apparatus. Features simulation and case studies to develop management and command skills. Applies to Chief Officer Certification. California Fire Service Training and Education System (CFSTES) approved. Forty lecture hours for one week. (No prerequisite)

FIRE 85 (formerly FT 85) **Fire Management 2A-Organizational Development and Human Relations 2.0 Units**
This course provides the student with information on how to make the transition from supervisor to manager. Topics of discussion include internal and external influences; personality traits of fire fighters; managing human relations; group dynamics; conflict solution and more. This course applies to Chief Officer Certification. California Fire Service Training and Education System (CFSTES) approved. Forty lecture hours for one week. (No prerequisite)

FIRE 86 (formerly FT 86) **Intermediate Incident Command System (ICS) 1.5 Units**
This course expands the fire fighting student's knowledge of ICS and how to expand the system to fit the emergency and adds air operations and the control and management of these resources to the ICS system. Twenty-four lecture hours for one week. (Prerequisite: FIRE 66 or experience as a fire fighter using the ICS system. Credit/No Credit)

FIRE 87 (formerly FT 87) **Fire Management 2E 2.0 Units**
Designed for Fire Chief Officers, Company Officers and functional managers, this course provides an overview of current issues and concepts of today's modern fire service. Topics include: governmental relations, changing "settings/policy formation," program management, personnel/labor relations, and the legal environment. Forty lecture hours for one week. (No prerequisite)

FIRE 90 (formerly FT 90) **Paid Call Fire Fighter Academy 3.0 Units**
The Paid Call Fire Fighter Academy will provide basic training for individuals interested in becoming a Paid Call Fire Fighter. Students must attend a mandatory orientation. Eight lecture hours, twelve laboratory hours per week for four weeks. Offered Fall, Spring. (Prerequisite: Without the required physical strength and stamina to safely operate and control fire service tools, equipment and apparatus the student poses an undue risk to him/herself and to other fire technology students. Physical fitness requirements include strong back, torso, and legs and arms with flexibility and agility. Good hand and eye coordination plus the ability to remain calm under conditions of stress and personal discomfort are essential. Physical medical exam equal to sport physical or a pre employment physical is required to determine if the student has a disqualifying injury or condition that would result in an injury or accident to the student.)

FIRE 91 (formerly FT 91) **Fire Control 5 1.5 Units**
This course provides the fire fighter student with the information, methods and techniques necessary for providing crash fire rescue services (CFR) at airports. Subjects include: Utilizing conventional fire and specialized apparatus, CFR extinguishing agents, types of aircraft, standby procedures and operations at airports. Actual fire fighting and simulation is featured. Twenty-four lecture, sixteen laboratory hours per week for one week. (No prerequisite. Credit/No Credit) This course may be taken four times.

FIRE 93 (formerly FT 93) **Fire Management 2D, Master Planning 2.0 Units**
This course provides participants with information and discussion centering around program planning, master planning, forecasting, system analysis, system design, policy analysis, and other tropics. Applies to Chief Officer certification. State Fire Marshal accredited, Forty lecture hours for one week. (No prerequisite) This course may be taken four times.

FIRE 94 (formerly FT 94) **Fire Command 2D, Planning for Large Scale Disasters 2.0 Units**
The principles of disaster planning and the role of the fire department are discussed. Emergency Operation Centers (EOC), the role of Federal Emergency Management Administration (FMA), mutual aid, legal considerations, and mitigation techniques are topics covered. Case studies are examined and simulation exercises are feature. Forty lecture hours for one week. (No prerequisite) This course may be taken four times.

FIRE 95 **Basic Fire Academy** **10.0 Units**
(formerly FT 95)
Introduction to basic fire fighting theory and skills; study of the characteristics and behavior of fire; practice in fundamental fire suppression activities, with special attention on safety, first aid, and rescue procedures. Fourteen lecture hours, 26 laboratory hours per week for eight weeks. Offered Spring. (No prerequisite)

FIRE 98 **Fire Company Officer's Academy**
(formerly FT 98) **1.5 Units**
This forty-hour course is designed for the fire fighter student in order to provide students with a brief but comprehensive overview of the responsibilities of a fire department company officer. Emphasizes fundamental techniques of personnel management, supervision and leadership. Topics covered include: motivating, coaching and counseling subordinates; basic fire ground principles; and fire ground tactics and strategies at the company officer level. Twenty-four lecture, sixteen laboratory hours for one week. (No prerequisite)

FIRE 98A **Company Officer's Skills**
(formerly FT 98.1) **Maintenance** **1.5 Units**
This course provides the fire fighter company officer student with new information and skill development to maintain efficiency and effectiveness as a company officer and fire fighter. New policies, procedures and equipment are presented and student demonstrates proficiency in using tools, tactics and strategies for managing personnel, budgets and legal responsibilities in today's fire service. Sixteen lecture, twenty-four laboratory hours per week for one week. (Prerequisites: Employment as a fire company officer in a modern fire service agency. State mandated. Credit/No Credit) This course may be taken four times.

FIRE 99 **Chief Officer's Workshop 1.0 Unit**
(formerly FT 99)
This course provides the fire fighter student with current topics and challenges facing the fire service and chief officer's as supervisors. Topics include legal issues resulting from hazardous materials incidents, emergency medical protocols, terrorism, current management policies and procedures. CDF certified. Sixteen lecture hours per week for one week. (Prerequisites: I-300, S-430, S-400. State mandated. Credit/No Credit) This course may be taken four times.

FIRE 100 **Fire Protection Organization**
(formerly FT 30) **3.0 Units**
Provides an introduction to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems and fire strategy and tactics. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

FIRE 101 **Fundamentals of Fire Service**
(formerly FT 31) **Operations** **3.0 Units**
Provides the student with the fundamentals of fire department organization, management, and resources, and emphasizes the use of those resources to control various emergencies. Three lecture hours per week. CSU. (No prerequisite)

FIRE 102 **Fire Prevention Technology**
(formerly FT 32) **3.0 Units**
This course provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationship of fire prevention with fire safety education and detection and suppression systems. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

FIRE 103 **Fire Protection Equipment**
(formerly FT 35) **and Systems** **3.0 Units**
This course provides information relating to the features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection and portable fire extinguishers. Three lecture hours per week. CSU. (No prerequisite)

FIRE 104 **Fire Behavior and Combustion**
(formerly FT 37) **3.0 Units**
This course will study the theory and fundamentals of how and why fires start, spread, and are controlled; an in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents, and fire control techniques. Three lecture hours per week. CSU. (No prerequisite)

FIRE 105 **Fire Apparatus and Equipment**
(formerly FT 39) **3.0 Units**
Fire apparatus design, specifications, and performance capabilities; effective utilization of apparatus in fire service emergencies. Three lecture hours per week. CSU. (No prerequisite)

FIRE 106 **Fire Company Organization and**
(formerly FT 40) **Management** **3.0 Units**
Review of fire department organization, fire company organization, study of leadership and supervision with emphasis on communications, training, fire prevention, records and reports, and problem solving. Three lecture hours per week. CSU. (No prerequisite)

FIRE 107 **Fire Investigation** **3.0 Units**
(formerly FT 41)
A study of the cause and origin of any and all types of fires (accidental, incendiary, and suspicious); and law relating to fire investigation. Recognizing, collecting, and preserving evidence, interviewing witnesses and suspects, arrest and detention procedures, court procedures and giving a testimony. Three lecture hours per week. CSU. (No prerequisite)

FIRE 108 **Fire Hydraulics** **3.0 Units**
(formerly FT 43)
Review of applied mathematics; hydraulics laws as applied to the fire service; application of formulas and mental calculation to hydraulics and water supply problems. Three lecture hours per week. CSU. (No prerequisite)

FIRE 109 **Wildland Fire Control** **3.0 Units**
(formerly FT 45)
A course designed to provide employed firemen or fire science majors with a fundamental knowledge of the factors affecting wildland fire prevention, fire behavior, and control techniques. Three lecture hours per week. CSU. (No prerequisite)

FIRE 121 **Fire Management 2 B** **2.0 Units**
(formerly FT 21)
This course is designed to provide information and insight into the cyclical nature of budgeting and financial management. As a management course, the student will be presented with the essential elements of financial planning, budget preparation, budget justification, and budget controls. This course applies to Chief Officer Certification. Eight lecture hours per day for five days, including review and examination, for a total of 40 hours. CSU. (No prerequisite) This course may be taken three times.

FIRE 138 **Cooperative Education**
(formerly FT 38)
See Cooperative Education listing (1-8 units). CSU

FIRE 148 **Special Topics**
(formerly FT 48)
See Special Topics listing (Variable units). CSU

FIRE 149 **Independent Study**
(formerly FT 49)
See Independent Study listing (1-3 units). CSU

FRENCH

FREN 101 **Elementary French** **5.0 Units**
(formerly FRENCH 1)
Basic structures of French language, inductive presentation of grammar, simple composition. Emphasis placed on the spoken language. Five lecture hours per week. CSU, UC. Offered Fall. (No prerequisite)

FREN 102 **Elementary French** **5.0 Units**
(formerly FRENCH 2)
Continuation of FREN 101 stressing review of basic structures, more advanced grammar, spoken and written communication. Five lecture hours per week. CSU, UC. Offered Spring. (Prerequisite: FREN 101)

FREN 103 **Intermediate French** **3.0 Units**
(formerly FRENCH 3)
Continuation of FREN 102 with grammar review and expansion, introduction to simple literary texts, spoken and written communication. Three lecture hours per week. CSU, UC. Offered Fall. (Prerequisite: FREN 102)

FREN 104 **Intermediate French**
(formerly FRENCH 4) **(CAN FREN 10)** **3.0 Units**
Continuation of FREN 103 with further grammar review and expansion, reading of simple literary texts, spoken and written communication. Three lecture hours per week. CSU, UC. Offered Spring. (Prerequisite: FREN 103)

FREN 125 **Conversational French** **3.0 Units**
(formerly FRENCH 25)
An introduction to the French language using situations the visitor will commonly encounter. Introduction to simple French structures and grammar with emphasis on the spoken language. Three lecture hours per week. CSU. (No prerequisite. Grade Option)

FREN 128 **Special Topics**
(formerly FRENCH 28)
See Special Topics listing (Variable units).

FREN 129 **Independent Study**
(formerly FRENCH 29)
See Independent Study listing (1-3 units).

GEOGRAPHY

GEOG 101 **Physical Geography**
(formerly GEOG 1) **(CAN GEOG 2)** **3.0 Units**
An introduction to the fundamental concepts of geography with emphasis on the physical world, its components and interrelationships. Topics include earth/sun relationships, atmospheric elements and weather, climate and seasons, earthquakes and volcanoes, rocks and minerals, oceans and coastlines, glaciers, and landform distribution. Also included are introductory methods of map reading and interpretation. Current environmental issues relating to these topics are emphasized. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer, Winter. (No prerequisite)

GEOG 101L **Geography Laboratory**
(formerly GEOG 1L) **(CAN GEOG 6 when taken with GEOG 1)** **1.0 Unit**
This course includes the study of world patterns of climate, water, glaciation, vegetation, soils and landforms with consideration of basic factors affecting the distribution and interrelationships of these patterns, map reading and interpretation, and the basic study of the earth and its movement within the solar system. Three laboratory hours per week. CSU, UC. Offered Fall, Spring, Summer. (Prerequisite: GEOG 101 or concurrent enrollment)

GEOG 102 **Cultural Geography**
(formerly GEOG 2) **(CAN GEOG 4)** **3.0 Units**
An examination of human activities on the surface of the earth as exhibited by various cultures. Worldwide variations in land-use systems, settlement patterns, economic activities, political and religious institutions, languages, and the numbers and movement of human populations are explored. Geographic analysis will be used to examine the similarities and differences of these worldwide variations. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer, Winter. (No prerequisite)

GEOG 103 Geography of California 3.0 Units
(formerly GEOG 3)
A regional study of the physical and cultural processes that have shaped California's geography. Variations in the physical landscape and its relationship with human settlement patterns and economic activities will be explored. There will be emphasis on topics relevant to California such as urbanization, immigration, recreation impact, coastal ecosystems, water and air pollution, conservation, and physical disasters. California's unique position within the Pacific Rim will also be examined. Three lecture hours per week. CSU. (No prerequisite)

GEOG 128 Special Topics
(formerly GEOG 28)
See Special Topics listing (Variable units). CSU

GEOLOGY

GEOL 101 Physical Geology (CAN GEOL 2)
(formerly GEOL 1) 4.0 Units
A study of the factors and processes that have created and shaped the earth's surface, the geologic structures that comprise it, and the minerals and rocks that form it. Field trips are scheduled to areas of representative local geology. Three lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

GEOL 102 Historical Geology 4.0 Units
(formerly GEOL 2)
A study of the chronological development of the surface of the earth and of the corresponding evolution of life. Of vital importance to the course is a thorough understanding of the concepts of geologic time, biological classification, and evolution. Emphasis is placed on historical development of North America. Three lecture, three laboratory hours per week. CSU, UC. Offered Spring. (No prerequisite)

GEOL 103 Geology of California 3.0 Units
(formerly GEOL 3)
A survey of the physical and historical geology of the 12 distinct geologic provinces of the state. Greatest emphasis is placed on the most important structural, scenic, and economic details of each region, and upon the provinces of Southern California. Three lecture hours per week. CSU, UC. Offered Fall. (No prerequisite)

GEOL 109 Geology of the Western
(formerly GEOL 9) National Parks 3.0 Units
A survey course describing the geological features of the national parks and monuments of the Western United States, illustrating why these areas serve as important preserves of such features. Three lecture hours per week. CSU. Offered Fall and Spring. (No prerequisite)

GEOL 110 Descriptive Mineralogy 4.0 Units
(formerly GEOL 10)
A general study of the crystallography, properties, relationships, and genesis of minerals and mineral associations; the recognition of the most important ore-forming and rock-forming minerals by physical and chemical properties and tests in the hand-specimen. Two lecture, six laboratory hours per week. CSU, UC. (No prerequisite)

GEOL 112 Introduction to Mineralogy
(formerly GEOL 12) 3.0 Units
An introduction to minerals and their occurrences. Identification of minerals based on physical and chemical properties, of crystallography, relationships, and genesis. Emphasis on ore-forming minerals. Two lecture, three laboratory hours per week. CSU. (No prerequisite)

GEOL 128 Special Topics
(formerly GEOL 28)
See Special Topics listing (Variable units). CSU

GEOL 129 Independent Study
(formerly GEOL 29)
See Independent Study listing (1-3 units). CSU

GERMAN

GERM 101 Elementary German 5.0 Units
(formerly GERMAN 1)
Inductive presentation of German language fundamentals: pronunciation, structure, simple composition, culture. Emphasis placed on using and understanding the spoken language. Five lecture hours per week. CSU, UC (No prerequisite)

GERM 102 Elementary German 5.0 Units
(formerly GERMAN 2)
Continuation of GERM 101 stressing review of basic structures, introduction of more advanced grammar, spoken and written communication in authentic cultural contexts. Five lecture hours per week. CSU, UC (Prerequisite: GERM 101 or equivalent)

GERM 103 Intermediate German 3.0 Units
(formerly GERMAN 3)
Continuation of GERM 102 with grammar review and expansion, introduction to simple literary texts, spoken and written communication. Three lecture hours per week. CSU, UC (Prerequisite: GERM 102)

GERM 104 Intermediate German 3.0 Units
(formerly GERMAN 4)
Continuation of GERM 103 with further grammar review and expansion, reading of simple literary texts, spoken and written communication. Three lecture hours per week. CSU, UC (Prerequisite: GERM 103)

GERM 125 Conversational German 3.0 Units
(formerly GERMAN 25)
An introduction to the German language using situations the visitor will commonly encounter. Introduction to simple German structures and vocabulary with emphasis on the spoken language. Three lecture hours per week. CSU (No prerequisite)

GERM 128 Special Topics
See Special Topics listing (Variable units).

GERM 129 Independent Study
See Independent Study listing (1-3 units).

GUIDANCE

GUID 10 Support Class for Learning
(formerly GUID 101) Disabled Students 1.0 Unit
Designed as a support class for students with diagnosed learning disabilities. Techniques for handling the social and emotional aspects of learning disabilities will be discussed. One lecture hour per week. This course will not apply to the Associate Degree. Offered Fall, Spring. (No prerequisite. Credit/No Credit) This course may be repeated.

GUID 16 LD Program Eligibility
(formerly GUID 60) Assessment 0.5 Unit
This course is designed to assess students to determine eligibility for learning disabilities services according to statewide criteria. One-half lecture hour per week. This course will not apply to the Associate Degree. Offered Fall, Spring. (No prerequisite. Permission of instructor required. Credit/No Credit)

GUID 50 College Success 1.0 Unit
(formerly GUID 4G)
A survey course designed to enable the student to learn and apply the techniques of effective study and to provide orientation to and familiarity with procedures, services, and common problems encountered by students. It includes a survey of the learning process, time management, the development of the techniques of note taking, understanding textbooks, techniques for remembering, test taking, preparation for exams, and the use of campus resources. Two lecture hours per week for eight weeks. Offered Fall, Spring. (No prerequisite. Credit/No Credit) This course may be taken two times.

GUID 51 Orientation to College 0.5 Unit
This class is designed to orient students to the college's programs, services, procedures, facilities, and standards. In addition, it acquaints students with career and transfer information, and provides basic guidelines for effective study. Nine lecture hours per half unit. (No prerequisite. Credit/No Credit)

GUID 59 Special Issues in Personal
(formerly GUID 4C) Development 1.0-2.0 Units
A series of short-term offerings developed in response to the common interest of special groups. Opportunities for an examination of the elements associated with particular issues of personal development and for group interaction on various topics of student concern. Offered Fall, Spring. (No prerequisite. Credit/ No Credit) This course may be taken four times.

GUID 64 Orientation (EOPS) 0.5 Unit
(formerly GUID 4I)
This class is designed to orient EOPS students to the college's functions, programs, services, procedures, campus facilities, transfer and career information. Additionally, it will acquaint students with performance expectations. Eight lecture hours total. (No prerequisite. Credit/No Credit)

GUID 66 Peer Advising Techniques
(formerly GUID 6) 3.0 Units
This course is designed to provide program advising skills, catalog, registration and scheduling information as well as helping skills that will prepare peer advisors to assist other students. Three lecture hours per week. (No prerequisite Credit/No Credit)

GUID 70 Alternative Learning Strategies
3.0 Units
This course provides students with learning disabilities the opportunity to identify and understand their individual learning profile. This course investigates the learning process, and introduces specific learning disability terms, concepts, and different learning modalities. Instruction is provided in alternative learning strategies and study techniques. Three lecture hours per week. (No prerequisite. Learning Disabilities eligibility process recommended prior to enrollment. Credit/No Credit)

GUID 75 Career Orientation
(formerly GUID 80) for the Disabled 1.0 Unit
This course is designed to offer disabled students a practical orientation in career selection and development of skills in job placement. Two lecture hours per week for nine weeks. (No prerequisite. Credit/No Credit)

GUID 100 Career and Life Planning
(formerly GUID 4E) 2.0 Units
This group guidance course is designed to assist students in the career and life planning process through consideration of individual needs, personality, interests, abilities, and values. Emphasis will be placed on assessment, career research, goal setting, and decision making. Thirty-six hours for nine or twelve week sessions. CSU. (No prerequisite. Credit/No Credit) This course may be taken two times.

GUID 105 Personal and Career Success
(formerly GUID 5) 3.0 Units
This intensive course is designed to assist students in obtaining the skills and knowledge necessary to identify and reach their personal and educational objectives. Topics covered include self-awareness, motivation and discipline, memory development, time management, communication skills, career planning, study skills, life skills, and an orientation to college life. See cross listing for PSYC 105. Three lecture hours per week. CSU. (No prerequisite)

GUID 107 Learning Strategies and
(formerly GUID 7) Study Skills 3.0 Units
This survey course assists students in assessing attitude, motivation, learning styles, and personality attributes that are necessary to the successful transition into college. Students will integrate this self awareness with theories and strategies that focus on the attainment of life long success in academic, professional and personal development. Topics include time management, study skills, test preparation, educational goal setting and planning, maintaining a healthy life style, and critical thinking skills. Three lecture hours per week. CSU. (No prerequisite)

HEATING, VENTILATION, AIR CONDITIONING/ REFRIGERATION

HVAC 122A **Heating and Air Conditioning** **4.0 Units**

This course provides instruction for layout, installation and repair of common residential and light commercial heating and air conditioning systems. Heating and air conditioning theory and energy calculations will be treated in depth. Course also includes use of solar energy for heating and cooling. See cross listing for CT 122A. Two lecture, six laboratory hours per week. CSU (No prerequisite)

HVAC 122B **Commercial Refrigeration** **4.0 Units**

Explore the more complex commercial and industrial uses of refrigeration, heating and air conditioning. Course covers installation and repair of the most common commercial refrigeration systems found in the food industry and industrial and manufacturing environments. Also included are computer controlled and central plant environmental systems, high and low pressure chillers, cooling towers and air handlers. See cross listing for CT 122B. Two lecture, six laboratory hours per week. CSU (Prerequisite: HVAC 122A) This course may be taken three times.

HVAC 122C **Heat Pump Fundamentals and Control** **4.0 Units**

This course explores electrical and mechanical circuitry fundamentals, along with theory, operation and application of heat pump systems used in residential and light commercial heating installations including the heat pump refrigeration cycle, reversing valves, defrost methods of supplemental heat, balance point, air flow, and heat pump thermostats. See cross listing for CT 122C. Three lecture, three laboratory hours per week. CSU (No prerequisite) This course may be taken four times.

HVAC 136 **HVAC Circuits and Controls** **4.0 Units**

This course explores electrical fundamentals common to the heating, ventilation, air conditioning and refrigeration fields. Course includes electrical theory, control circuitry and electronics, system supply circuitry and alternating and direct current troubleshooting. See cross listing for CT 136. Three lecture, three laboratory hours per week. CSU (No prerequisite) This course may be taken four times.

HISTORY

HIST 1 **(formerly HIST 101)** **History (Field Trip) of Mojave Road** **0.5 Unit**

A driving tour of the Historic Mojave Road that will take students from Needles to Barstow. Along the route, students will visit sites in the Fort Paiute, Lanfair Valley, Camp Rock Springs, Cima, Soda Springs, Afton Canyon, and Camp Cady areas. Throughout the tour, students will learn of the historical and political significance and contributions to the development of the road, as well as reasons for intermittent conflicts leading to periods of abandonment. Led by noted regional historian Dr. Leo Lyman, this tour is rich in the culture and history of the Mojave Desert. This course will not apply to the Associates Degree. Twenty seven laboratory hours (field trip with lectures enroute. (No prerequisite)

HIST 50 **United States History** **3.0 Units**

A survey of American social, political, and economic institutions from colonial origins to recent times. Course specifically designed for fulfillment of requirements of high school diploma and for non-transfer students. Three lecture hours per week. (No prerequisite. Grade option)

HIST 55 **History of the Victor Valley** **3.0 Units**

This course will draw on a large body of source material and information gathered over a long span of years in the community as well as recently acquired and discovered material to trace the development and changes of life-styles and ways of life from one generation to another. There will be some attempt to tie local developments to national trends and events while also attempting to discover what is unique and significant about the experience of living in the high Mojave Desert during the era from 1850 to the present. Three lecture hours per week. Offered Spring. (No prerequisite. Grade option)

HIST 60 **Mojave Desert History Workshop** **3.0 Units**

This is a research and writing course utilizing the raw materials of local history for the task of attempting to assemble a history of the Victor Valley area and neighboring regions. The class will build on the excellent material already assembled in the Mohahve Magazine and related oral history interviews already gathered by previous classes and individuals. Three lecture hours per week. (No prerequisite)

HIST 103 **(formerly HIST 3A)** **World History to 1500** **(CAN HIST 14)** **3.0 Units**

To a greater extent than ever before, American citizens and their country are interdependent on the rest of the world, and not just the so-called "Western World." We need to see ourselves as part of a world community—even if seen through a Western perspective. This course surveys the various civilizations of the world up to 1500 AD, stressing the inter-connectedness of various cultures even in ancient times. There will be an attempt to explore the "common denominators" among the several great civilizations, also stressing such universal issues as freedom. There is considerable emphasis on the Greek, Roman, and other civilizations most influential to us, while also dealing with the other civilizations and their inter-relationships. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

HIST 104 **(formerly HIST 3B)** **World History Since 1500** **(CAN HIST 16)** **3.0 Units**

Course will cover the period of 1500 to the 1980's and will focus on the making of the modern world. Inter-locking themes will include the discovery of the New World and the rise of Capitalism, the resistance to this new economic system by the non-white world, the spread of Imperialism and the division

of the world in the "core" (industrial) and "peripheral" (non-industrial) nations of the First and Third World. National revolution and rebellion especially in the 20th century will be examined as well as the end of the "Third World" and the rise of the Pacific Rim as a model of national and economic development. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

HIST 115 **History of California** **3.0 Units**
(formerly HIST 20)
A survey of the history and geography of California. The course will cover all aspects of the development of what is today known as California, including those contributions made by Indians, Spanish, Mexican, and early Anglo inhabitants. Special emphasis will be laid upon critical issues of the present. This course satisfies in part the California history requirement for teachers in the primary grades. Three lecture hours per week. CSU, UC. (No prerequisite)

HIST 117 **History of the United States to 1876**
(formerly HIST 17A) **(CAN HIST 8)** **3.0 Units**
American civilization through the Civil War era. Native American European antecedents will be studied. Colonial and revolutionary periods will be analyzed as well as the formation of a new nation. Gender and race issues will be examined in light of nation building. Three lecture hours per week. CSU, UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite)

HIST H117 **Honors History of the**
(formerly HIST H17A) **United States to 1876**
(CAN HIST 8) **4.0 Units**
This is the first half of the survey course on the history of the United States. The honors format requires a greater degree of outside reading material and a greater amount of time devoted to class discussion than in the regular courses (and consequently less time on actual contents of text, which good readers seldom need). Particular attention will focus on the variety of interpretations and viewpoints on many of the more important events and developments relating to the period from 1607-1877. Four lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite)

HIST 118 **History of the United States**
(formerly HIST 17B) **from 1876**
(CAN HIST 10) **3.0 Units**
A survey of the history of the United States from 1876 to the present. The course will focus on economic, political and social history in order to understand the casual factors that created the United States. Gender and ethnic history will be examined in light of the development of the United States and how diverse groups contributed to the historical reality of the United States. Three lecture hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite)

HIST H118 **Honors History of the**
(formerly HIST H17B) **United States from**
1876 (CAN HIST 10) **4.0 Units**
A survey of American history since Reconstruction after the Civil War with emphasis upon those social, political, and economic factors which most shaped modern America. The honors format will be implemented, including a greater amount of outside reading material and more class time devoted to discussion of that material—with consequently much less actual treatment of the basic textbook, which honors students will be expected to grasp adequately on their own. Particular attention will be focused on the varying viewpoints and interpretations of the important historic questions. Four lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite)

HIST 119 **The Information Age** **3.0 Units**
(formerly HIST 22)
This trans-disciplinary course analyzes the profound technological, social, political and cultural revolution the world had undergone in the period of 1970 through the early 21st century. This history course will provide students with the analytical tools necessary to understand their place in the 21st century. Six lecture hours per week for nine weeks. CSU, UC (No prerequisite) This course may be taken four times.

HIST 120 **British History and Institutions**
(formerly HIST 5A) **to 1713** **3.0 Units**
A survey of British history and institutions from prehistory to the 1 8th Century. Special attention to the development of British society and cultural achievements as well as to political evolution. Three lecture hours per week. CSU, UC. (No prerequisite)

HIST 121 **British History and Institutions**
(formerly HIST 5B) **Since 1713** **3.0 Units**
A survey of British history and institutions from 1713 to present. Special attention to the development of British society and cultural achievements as well as to political evolution. Emphasis on British domestic and foreign policies of the 20th Century. Three lecture hours per week. CSU, UC. (No prerequisite)

HIST 124 **History of the Far East** **3.0 Units**
(formerly HIST 6A)
Background of China, Japan, and Southeast Asia. China studied in depth beginning with the arrival of the West and China's reaction to trade, missionary activity, and colonialism. Reforms and rebellions, the fall of the Ch'ing Dynasty. China's grouping towards becoming a modern state. Japanese institutions and Japan's swift rise to world power status in relation to the U.S. and China. Three lecture hours per week. CSU, UC. (No prerequisite)

HIST 125 **History of the Far East** **3.0 Units**
(formerly HIST 6B)
Probe into the evolving power struggle between Japan, China, and the Western powers. Colonial areas examined and compared. World War II; power vacuums, the involvement of the U.S., the rise of communist power. Some attention to Southeast Asia. Emphasis on a comparison of contemporary China and Japan. Three lecture hours per week. CSU, UC. Offered Fall. (No prerequisite)

HIST 127 **History of Russia** **3.0 Units**
(formerly HIST 21)
Russian history through Kievan, Muscovite, Imperial, and Soviet periods. The agrarian problem, great reforms, radical movement, the revolution of 1905. Attention to the Revolution of 1917 and to Russian international and internal politics since 1917. Three lecture hours per week. CSU, UC (No prerequisite)

HIST 128 **Special Topics**
(formerly HIST 28)
See special Topics listing (Variable units). CSU

HIST 129 **Independent Study**
(formerly HIST 29)
See Independent Study (1-3 units). CSU

HIST 130-131 **Latin American History**
(formerly HIST 8A-B) **3-3.0 Units**
A political, social, and cultural history of the Americas, both North and South, from earliest origins to the present. Includes study of the foreign relations of the American republics. The first semester (130) deals with the colonial era and the second semester (131) with the national period. Emphasis is placed on Mexico and the Caribbean area plus the major nations of South America. Three lecture hours per week. CSU, UC. HIST 130 offered Fall, HIST 131 offered Spring. (No prerequisite)

HIST 135 **History of Mexico** **3.0 Units**
(formerly HIST 18)
Social, economic, and political history of Mexico from the pre-Columbian period up to the present. Present-day Mexican society as a product of the region's geographical position in relation to the rest of Latin America, Europe, and the United States. Enables the student to have a greater grasp of Mexico's development and its position in the world community. Three lecture hours per week. CSU, UC (No prerequisite)

HIST 145 **PTK Study Topic Seminar**
(formerly HIST 45) **1.0 Unit**
This is a lecture series based on the Phi Theta Kappa International honor society study topic for each year. Faculty members will be invited to speak on their areas of expertise as they relate to those study topics. One lecture hour per week. CSU, UC. (No prerequisite. Credit/No Credit). This course may be taken four times.

HIST 150 **Hispanic American History**
(formerly HIST 7) **3.0 Units**
Surveys the evolution of the Chicano in America, including their contributions and special problems. Emphasis will be placed upon current issues having the most impact upon America and the Southwest in particular. Three lecture hours per week. CSU, UC. (No prerequisite)

HIST 153 **African American History**
(formerly HIST 13) **3.0 Units**
The progression of the Black American's slave experience to the present. Emphasis on the struggle for social, political, and economic parity. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

HIST 155 **Women in United States History**
(formerly HIST 14) **3.0 Units**
Basic background in U.S. history will be assumed and helpful. History of women in the United States from the colonial era to the present. Emphasis on changing roles women have played in society, family, and work. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite)

HIST 157 **History of the Indians**
(formerly HIST 16) **of the United States** **3.0 Units**
A survey history of Native America from the time of contact (1500) to the present. Course will focus on Indians of North American, but will also focus to a lesser degree on American tribes, civilizations, and kingdoms of South America and Hawaii. The anthropological background, settlement patterns, erosion of traditional culture and values conquests by whites, genocide, the theft of the West by whites , the reservations system, the tragedy of Native America today and the rise of Native American militancy will be just some of themes covered in the courses. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

HONORS COURSES

CHEM H100 **Honors Introductory Chemistry**
(formerly CHEM H10) **(CAN CHEM 6)** **6.0 Units**
A foundation in the fundamental concepts, theories, and methodologies of Introductory Chemistry is highly recommended. Critical thinking and analytical skills will be used to develop problem-solving strategies used in Chemistry. Emphasis will be on the use of communication and information technologies in the analysis and presentation of experimental data. Four lecture, six laboratory hours per week. CSU, UC. Offered Fall. (Prerequisite: Enrollment in honors course requires acceptance into Honors Program.)

CHEM H106 **Honors Introductory Chemistry II:**
(formerly CHEM H6) **Organic Chemistry** **5.0 Units**
Modern organic synthesis, biotech, and pharmaceutical laboratories assess the feasibility of their proposed syntheses using computer generated models of target compounds. Current trends in modern research indicate a growing dependence on computational chemistry. This program will extend topics covered in CHEM 106 into basic concepts of computational chemistry. Emphasis will be on molecular modeling techniques, acquisition, processing, and presentation of experimental data. Four lecture, three laboratory hours per week. CSU, UC (Prerequisite: Enrollment in honors course requires acceptance into the Honors Program or prior approval from the instructor.)

CHEM H207 **Introductory Chemistry III:**
Biochemistry Honors **5.0 Units**
The application of molecular modeling techniques to biological marmomolecules. Computer generate force-fields and molecular graphics will be used to study structural geometry, potential energy surfaces, energy gradients, bond energies, and bond angles. Confirmation analyses will be performed to gain a practical understanding of the advantages and limitation of molecular modeling. Four lecture, three laboratory hours per week. CSU, UC. Offered Fall. (Prerequisite: Enrollment in honors course requires acceptance into Honors Program.)

ENGL H101 **Honors Composition**
(formerly ENGL H1A) **and Reading** **5.0 Units**
Principles and methods of expository writing. Analytical reading of source materials and writing of expository papers. Honors seminar will deepen students' insights. Five lecture hours per week. CSU, UC. (Prerequisite: Enrollment in honors course requires acceptance into the Honors Program or prior approval from the instructor as well as meeting the prerequisites for English 101 (completion of ENGL 50 with a grade of "C" or better)

ENGL H102 **Honors Composition**
(formerly ENGL H1B) **and Literature** **4.0 Units**
Further training in writing and an introduction to the short story, novel, poetry, and drama. The honors seminar will deepen students' insights into literature and into the process of writing about it. Four lecture hours per week. CSU, UC. [Prerequisite: Enrollment in honors course requires acceptance into the Honors Program or prior approval from the instructor as well as meeting the prerequisites for ENGL 102 (completion of ENGL 101 with a grade of "C" or better)]

ENGL H104 **Honors Critical Thinking**
(formerly ENGL H2) **and Composition** **4.0 Units**
This course is designed to develop the student's critical thinking, reading and writing skills beyond the level achieved in ENGL 101. It will focus primarily on the analysis and evaluation of expository and argumentative discourse, and on writing analytical and argumentative essays. Four lecture hours per week. CSU, UC. [Prerequisite: Enrollment in honors course requires acceptance into the Honors Program or prior approval from the instructor as well as meeting the prerequisites for ENGL 104 (completion of ENGL 101 with a grade of "C" or better)]

HIST H117 **Honors History of the**
(formerly HIST H17A) **United States to 1876**
(CAN HIST 8) **4.0 Units**
This is the first half of the survey course on the history of the United States. The honors format requires a greater degree of outside reading material and a greater amount of time devoted to class discussion than in the regular courses (and consequently less time on actual contents of text, which good readers seldom need). Particular attention will focus on the variety of interpretations and viewpoints on many of the more important events and developments relating to the period from 1607-1877. Three lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite)

HIST H118 **Honors History of the**
(formerly HIST H17B) **United States from**
1876 (CAN HIST 10) **4.0 Units**
A survey of American history since Reconstruction after the Civil War with emphasis upon those social, political, and economic factors which most shaped modern America. The honors format will be implemented, including a greater amount of outside reading material and more class time devoted to discussion of that material—with consequently much less actual treatment of the basic textbook, which honors students will be expected to grasp adequately on their own. Particular attention will be focused on the varying viewpoints and interpretations of the important historic questions. Four lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite)

MATH H105 **Honors College Algebra**
(formerly MATH H5) **(CAN MATH 10)** **4.0 Units**
A math course for the well-prepared student. Honors MATH 105 will include the study of exponents and radicals, theory of quadratic equations, simultaneous quadratic equations, complex numbers, equations of higher degree, inequalities, logarithmic and exponential equations, binomial theorem, matrices and determinants, partial fractions, sequences and series. Four lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite)

MATH H120 **Honors Introduction to**
Statistics **5.0 Units**
Basic statistical techniques, design and analysis for both parametric and non-parametric data are included. Descriptive statistics are included. Graphing techniques of illustrating the data are covered. Probability is covered. Inferential statistics included are estimation and hypothesis testing, chi-square, analysis of variance, and regression. Applications are drawn from a variety of fields. In addition, the Honors component will include the design of surveys, probability testing, and a research project. Five lecture hours per week. CSU, UC (Prerequisite: Enrollment in honors course requires acceptance into the Honors Program or prior approval from the instructor.)

MATH H226 **Honors Analytic Geometry**
(formerly MATH H26A) **and Calculus**
(CAN MATH 18) **6.0 Units**
As an introduction to the calculus of single variables, students will develop the concept of limit, apply limits to functions to determine if they are continuous, and find the derivative and determine integrals. Students will study the properties of the derivative and integral, their relationship to each other given by the Fundamental Theorem of Calculus and some applications to the real world. Six lecture hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: Enrollment in honors course requires acceptance into the Honors Program or prior approval from the instructor and MATH 104 and 105 completed with a grade of "C" or better.)

MATH H227 **Honors Analytic Geometry**
(formerly MATH H26B) **and Calculus**
(CAN MATH 20) **6.0 Units**
The calculus of logarithmic, exponential, trigonometric and hyperbolic functions, integration techniques, L'Hopital's Rule, improper integrals, infinite series, conic sections, parametric equations, and polar coordinates. In addition, the honors component will include reading proofs, writing complete proofs from sketches of proofs, and applying techniques learned to real-life problems. Six lecture hours per week. CSU, UC (Prerequisite: Enrollment in honors course requires acceptance into the Honors Program or prior approval from the instructor and MATH 226 with a grade of "C" or better.)

MATH H228 **Honors Analytic Geometry**
(formerly MATH H26C) **and Calculus**
(CAN MATH 22) **6.0 Units**
Vectors and the geometry of space, vector-valued functions, the calculus of functions as several variables, multiple integration, Green's Theorem, divergence theorem, Stoke's Theorem, and applications. In addition, the honors component will include reading proofs, writing complete proofs from sketches of proofs, and apply techniques learned to real-life problems. Six lecture hours per week. CSU, UC (Prerequisite: Enrollment in honors course requires acceptance into the Honors Program or prior approval from the instructor and MATH 227 with a grade of "C" or better.)

PHYS H204 **Honors Engineering Physics**
(formerly PHYSICS H1D) **(Light and Modern Physics)**
(CAN PHYS 14 and
CAN PHYS SEQ B) **4.0 Units**
The nature and propagation of light, reflection and refraction, interference, diffraction, gratings and spectra, polarization, elements of quantum physics, waves and particles. Three lecture, three laboratory/discussion hours per week. CSU, UC (UC credit limitation). Offered Spring semester in odd-numbered years. (Prerequisite: PHYS 203)

POLS H102 **Honors American Government**
(formerly POL SCI H1B) **and Politics (CAN GOVT 2) 4.0 Units**
Examines the workings of our complex system of American government, including national, California state, and local levels (with emphasis on the national level). This survey will focus on the historical and contemporary development of our Constitution, political institutions, citizen participation, politics, and policies. Critical analysis of classical and contemporary scholarly texts and political oratory will be used extensively to examine the American political experience. Four lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite)

PSYC H101 **Honors Introductory Psychology**
(formerly PSYCH H1A) **(CAN PSY 2)** **4.0 Units**
This course provides instruction in the nature of human behavior and a consideration of theories and principles pertaining to the topics of research design and experimentation, perception, emotions and motivation, personality, social psychology, psychopathology, human development, learning, cognition and memory. Includes essential features of the biological and neurological basis of behavior. Four lecture hours per week. CSU, UC (Prerequisite:; Enrollment in honors course requires acceptance into the Honors Program or prior approval of the instructor. Eligibility for ENGL 101 recommended)

PSYC H110 **Honors Developmental**
(formerly PSYC H10) **Psychology** **4.0 Units**
This course includes the theories, methods, and research findings regarding biosocial, cognitive, and psychosocial development of the individual from conception through adulthood, including death, dying, and bereavement. Four lecture hours per week. CSU Offered Fall, Spring, Summer. (Prerequisite: Enrollment in honors course requires acceptance into the Honors Program or prior approval of the instructor. Eligibility for ENGL 101 and satisfactory completion of PSYC 101.)

INDEPENDENT STUDY

IND STUDY 129-149-99 **Independent Study** **1.0-3.0 Units**
(formerly IND STUDY 29-49-99)
Individual study, research, or other projects under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and/or departmental recommendation. Designed to provide an opportunity for qualified students to do individual study in a selected area of a subject field. The student may take up to a maximum of six units of Independent Study course work in a particular discipline. Instructor is responsible for providing advice and guidance as required, and for evaluating student performance. (Prerequisite: Formulation of a written statement of purpose acceptable to the instructor and demonstration of sufficient background and skill to undertake the project)

Units are awarded according to the following formula of time committed to the course:

1 unit	54 hours per semester
2 units	108 hours per semester
3 units	162 hours per semester

CSU may limit the number of Independent Study units accepted.

UC maximum credit allowed: three and one-third semester credits per term, six units total, in any or all appropriate subject areas combined. Granting of course credit contingent upon an evaluation of the course outline by a UC campus.

JOURNALISM

JOUR 106 **Introduction to Photojournalism**
(JOURN 6) **2.0 Units**
This lab class is an introduction to the basics of photojournalism including basic photography skills, digital imaging, processing, composition, and production of written news stories. See cross-listing for Photography 6. Six laboratory hours per week. CSU. (No prerequisite) This course may be taken two times.

JOUR 108 **Fundamentals Of Journalism**
(formerly JOURN 8) **4.0 Units**
The student will learn basics of news and feature reporting and writing while producing the RamPage student newspaper. Topics covered: interviewing techniques, legal/ethical issues, writing strategies. Students produce the campus newspaper using computers and learn about career opportunities. Three lecture, three laboratory hours per week. CSU. (Prerequisite: ENGL 50 with a grade of "C" or better.)

JOUR 108L **Journalism Lab** **1.0-3.0 Units**
(formerly JOURN 8L)
This is a laboratory-only class which requires prior completion of Journalism 8. The student will learn advanced techniques of writing and editing. The student will learn and practice the basics of desktop publishing and increase their overall and increase their overall responsibility in production and distribution of the Victor Valley College student newspaper. Three laboratory hours per week. CSU. (Prerequisite: JOUR 108 with a grade of "C" or better.) This course may be taken four times.

JOUR 128 **Special Topics**
(formerly JOURN 28)
See Special Topics listing (Variable units). CSU

JOUR 129 **Independent Study**
(formerly JOURN 29)
See Independent Study listing (1-3 units). CSU

LATIN

LATN 101 **Elementary Latin** **5.0 Units**
This course introduces the Latin language and the culture and history of the ancient Roman people. Students complete intensive work on grammar and vocabulary. Special emphasis is given to translating Latin fluently and accurately into English. Five lecture, one laboratory hour per week. CSU. (No prerequisite. Grade option.) This course may be taken two times.

LATN 102 **Elementary Latin** **5.0 Units**
This course is a continuation of Latin 101. Students study the Latin language and the culture of the ancient Roman people. Students complete intensive work on grammar and vocabulary and apply this knowledge to passages from ancient authors, including Julius Caesar's Gallic Wars. Special emphasis is given to translating Latin fluently and accurately into English. Five lecture, one laboratory hour per week. CSU. (Prerequisite: LATN 101. Grade option.) This course may be taken two times.

MATHEMATICS

MATH 10 **Basic Mathematics Skills**
(formerly MATH 167) **3.0 Units**
Provides work in operations with whole, decimal, and fractional numbers. Prime factorization, measurement, and prealgebra are also covered. Repetition provides the opportunity for increased skill development. Three lecture hours per week. This course will not apply to the Associate Degree. Offered Fall, Spring, Summer. (No prerequisite)

NOTE: Students seeking a refresher of math skills may also enroll in Basic Skills Math 12A, 12B, 12C and 12D. The course descriptions for these one-unit courses are found under "Basic Skills." Students may also take these courses concurrently with Math 10 or Math 12.

MATH 12 **Pre-Algebra** **3.0 Units**
(formerly MATH 159)
Signed number arithmetic, order of operations, algebraic expressions, solving equations, and factoring. This course will not apply to the Associate Degree. Three lecture hours per week. Offered Fall, Spring, Summer. (Prerequisite: MATH 10 with a grade of "C" or better or eligibility as determined by VVC assessment.)

MATH 50 **Elementary Algebra** **4.0 Units**
Signed-number arithmetic, square roots, order of operations, algebraic expressions, solving equations, factoring, graphs of linear equations and solving systems of equations. Four lecture hours per week. Offered Fall, Spring, Summer. (Prerequisite: MATH 10 or MATH 12 with a grade of "C" or better or eligibility as determined by VVC assessment.)

MATH 50A **Elementary Algebra I** **3.0 Units**
This course covers a review of arithmetic operations with whole, decimal, fractional and signed numbers, exponential notation, percentages, and order of operations. Algebraic expressions, solving and graphing linear equations and inequalities, polynomial operations and polynomial factoring are also covered. Successful completion of MATH 50A and MATH 50B is equivalent to successful completion of MATH 50. Three lecture hours per week. (Prerequisite: MATH 10 with a grade of "C" or better or placement by VVC assessment.)

MATH 50B **Elementary Algebra II** **3.0 Units**
This course is a continuation of MATH 50A - Elementary Algebra I. The course covers topics including rational expressions, graphing linear inequalities, systems of equations, radical expressions and equations, and solutions to quadratic by different methods. Successful completion of MATH 50A and MATH 50B is equivalent to successful completion of MATH 50. Three lecture hours per week. (Prerequisite: MATH 50A with a grade of "C" or better.)

MATH 50L **Laboratory-Enhanced Study for Math 50** **1.0 Unit**
A laboratory-enhanced study concurrent with Math 50 for students participating in the Student Support Services program. A practical course supplementing instruction in signed number arithmetic, square roots, order of operations, algebraic expressions, solving equations, factoring, graphs of linear equations and solving systems of equations. One-half lecture plus one weekly hour individualized instruction. (Prerequisites: completion of MATH 10 with a "C" or better, or Assessment Placement, and referral by Student Support Services. Credit/ No Credit) This course may be taken two times.

MATH 60 **Geometry** **4.0 Units**
This course covers Euclidean plane geometry and the development of logical thinking; it also develops visualization skills including congruence, similarity, parallel lines, circle properties, and constructions. Four lecture hours per week. (Prerequisite: MATH 50 with a grade of "C" or better and ENGL 50 with a grade of "C" or better or eligibility as determined by VVC assessment. Grade Option.)

MATH 70 **Building Mathematical Experiences for Children K-8** **3.0 Units**

This course emphasizes the development of explorations in mathematics appropriate for the school-age child. The course covers the sequence of topic acquisition, motivating concepts, disguising repetition, project development, group appropriate activities, evaluation techniques and building mathematical materials. Two lecture, three laboratory hours per week. (No prerequisite. Grade Option) This course may be taken four times.

MATH 71 **Guided Discoveries Practicum** **2.0 Units**

This course is a laboratory course that provides opportunity to those interested in teaching elementary school, or being a teacher's aide in mathematics, to gain experience preparing and presenting guided experiences for students of elementary age. Six laboratory hours per week. (No prerequisite. Grade Option) This course may be taken four times.

MATH 90 **Intermediate Algebra** **4.0 Units**
(formerly MATH 3)

This course is designed to serve as a preparation for the study of College Algebra, Statistics, Trigonometry and other college mathematics courses. Topics include review of the real number system, an introduction to imaginary and complex numbers, the solution of first degree, quadratic and systems of equations, polynomials, rational expressions, exponents and radicals, graphs of functions (both linear and nonlinear) and of relations, and exponential and logarithmic functions. Four lecture hours per week. Offered Fall, Spring, Summer. (Prerequisite: MATH 50 with a grade of "C" or better or eligibility as determined by VVC assessment.)

MATH 104 **Trigonometry (CAN MATH 8)**
(formerly MATH 4) **4.0 Units**

Topics for this preparatory course for calculus include trigonometric functions and equations, solutions for both right and oblique triangles, trigonometric forms of complex numbers and De Moivre's Theorem. Course content also includes verification of trigonometric identities, inverse trigonometric functions, half and multiple angles, vectors and their applications, parametric equations, polar coordinates and polar equations. Four lecture hours per week. CSU. Offered Fall, Spring, Summer. (Prerequisite: MATH 90 with a grade of "C" or better.)

MATH 105 **College Algebra (CAN MATH 10)**
(formerly MATH 5) **4.0 Units**

The course offers a review of real numbers, real number exponents, and factoring polynomials. The course also covers equations and inequalities, solutions to systems of equations and inequalities, solutions to equations and inequalities involving absolute value, graphing relations and functions, matrices, determinants of matrices, and matrix algebra. Complex numbers, the real and complex zeros of polynomials, the zeros of exponential, rational and radical functions, the conic sections, sequences, mathematical induction and the binomial theorem are also covered. Four lecture hours per week. CSU, UC credit limitation). Offered Fall, Spring, Summer. (Prerequisite: MATH 90 with a grade of "C" or better or eligibility as determined by VVC assessment.)

MATH H105 **Honors College Algebra**
(formerly MATH H5) **(CAN MATH 10)** **4.0 Units**

This course covers all the topics of the regular MATH 5 course, but the topics are covered in greater depth. Exponents and radicals, theory of quadratic equations, simultaneous quadratic equations, complex numbers, equations of higher degree, inequalities, logarithmic and exponential equations, binomial theorem, matrices and determinants, partial fractions, sequences and series. Four lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite)

MATH 119 **Finite Mathematics** **3.0 Units**

This course covers linear functions and modeling, matrix operations (addition, subtraction, multiplication and inverses), systems of linear equations, introductory linear programming, mathematics of finance, counting techniques. Probability theory, descriptive statistics and distributions, and Markov chain are also covered. Three lecture hours per week. CSU. (Prerequisite: MATH 90 with a grade of "C" or better.)

MATH 120 **Introduction To Statistics**
(formerly MATH 20) **(CAN STAT 2)** **4.0 Units**

This course covers basic statistical techniques including design and analysis for both parametric and non-parametric data. Descriptive statistics included are measures of central tendency and measures of dispersion. Graphical techniques of illustrating the data are covered. Probability and its application to inferential statistical procedures is covered. Inferential statistics included are estimation and hypothesis testing, chi-square, analysis of variance and regression. Applications are drawn from a variety of fields. Four lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (Prerequisite: MATH 90 with a grade of "C" or better.)

MATH H120 **Honors Introduction to Statistics** **5.0 Units**

Basic statistical techniques, design and analysis for both parametric and non-parametric data are included. Descriptive statistics are included. Graphing techniques of illustrating the data are covered. Probability is covered. Inferential statistics included are estimation and hypothesis testing, chi-square, analysis of variance, and regression. Applications are drawn from a variety of fields. In addition, the Honors component will include the design of surveys, probability testing, and a research project. Five lecture hours per week. CSU, UC (Prerequisite: Enrollment in honors course requires acceptance into the Honors Program or prior approval from the instructor.)

MATH 128 **Special Topics**
(formerly MATH 28)

See Special Topics listing (Variable units). CSU

MATH 129 **Independent Study**
(formerly MATH 29)

See Independent Study listing (1-3 units). CSU

MATH 132 **The Ideas Of Math**
(formerly MATH 32) **(CAN MATH 2)** **3.0 Units**
Sets and their application to permutations, combinations, binomial theorem, correspondence, countability, finite probability measures, and expectation with optional topics in geometry (Euclidean and non-Euclidean, tessellations and fractals) or beginning calculus (derivative and antiderivative of simple polynomial functions. Three lecture hours per week. CSU, UC. Offered Spring. (Prerequisite: MATH 90 with a grade of "C" or better or eligibility as determined by VVC assessment.)

MATH 138 **Cooperative Education**
(formerly MATH 38)
See Cooperative Education listing (1-8 units). CSU

MATH 216 **Business Calculus** **4.0 Units**
This course is designed for students majoring in Business and Economics. Topics covered include functions and relations, limits and continuity, differentiation, applications of differentiation, integration, and applications of integration. NOTE: MATH 216 - Business Calculus and MATH 226 - Calculus and Analytic Geometry I are not the same class. Four lecture hours per week. (Prerequisite: MATH 105 or MATH 119.)

MATH 226 **Analytic Geometry and Calculus**
(formerly MATH 26A) **5.0 Units**
This class offers an introduction to the calculus of single variables. Topics covered include limits, using limits of functions to determine continuity, finding derivatives and integrals of functions, basic properties of derivatives and integrals, the relationship between derivatives and integrals as given by the Fundamental Theorem of Calculus, an applications. Five lecture hours per week. CSU, UC. Offered Fall, Spring. (Prerequisites: Both MATH 104 and 105 with a grade of "C" or better.)

MATH H226 **Honors Analytic Geometry**
(formerly MATH H26A) **and Calculus**
(CAN MATH 18) **6.0 Units**
As an introduction to the calculus of single variables, students will develop the concept of limit, apply limits to functions to determine if they are continuous, and find the derivative and determine integrals. Students will study the properties of the derivative and integral, their relationship to each other given by the Fundamental Theorem of Calculus and some applications to the real world. In addition, the honors component will include reading proofs, writing complete proofs from sketches of proofs, and applying techniques learned to real-life problems. Six lecture hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: Enrollment in honors course requires acceptance into the Honors Program or prior approval from the instructor and MATH 104 and 105 completed with a grade of "C" or better.)

MATH 227 **Analytic Geometry and Calculus**
(formerly MATH 26B) **(CAN MATH 20)** **5.0 Units**
This class covers the calculus of logarithmic, exponential, trigonometric and hyperbolic functions, integration techniques, L'Hopital's Rule, improper integrals, infinite series, conic sections, parametric equations, and polar coordinates. Five lecture hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: MATH 226 with a grade of "C" or better.)

MATH H227 **Honors Analytic Geometry**
(formerly MATH H26B) **and Calculus**
(CAN MATH 20) **6.0 Units**
The calculus of logarithmic, exponential, trigonometric and hyperbolic functions, integration techniques, L'Hopital's Rule, improper integrals, infinite series, conic sections, parametric equations, and polar coordinates. In addition, the honors component will include reading proofs, writing complete proofs from sketches of proofs, and applying techniques learned to real-life problems. Six lecture hours per week. CSU, UC (Prerequisite: Enrollment in this honors course requires acceptance into the Honors Program or prior approval from the instructor and MATH 226 with a grade of "C" or better.)

MATH 228 **Analytic Geometry and Calculus**
(formerly MATH 26C) **(CAN MATH 22)** **5.0 Units**
This class covers vectors and the geometry of space, vector-valued functions, the calculus of functions as several variables, multiple integration, Green's Theorem, divergence theorem, Stoke's Theorem, and applications. Five lecture hours per week. CSU, UC. Offered Fall. (Prerequisite: MATH 227 with a grade of "C" or better.)

MATH H228 **Honors Analytic Geometry**
(formerly MATH H26C) **and Calculus**
(CAN MATH 22) **6.0 Units**
Vectors and the geometry of space, vector-valued functions, the calculus of functions as several variables, multiple integration, Green's Theorem, divergence theorem, Stoke's Theorem, and applications. In addition, the honors component will include reading proofs, writing complete proofs from sketches of proofs, and apply techniques learned to real-life problems. Six lecture hours per week. CSU, UC (Prerequisite: Enrollment in this honors course requires acceptance into the Honors Program or prior approval from the instructor and MATH 227 with a grade of "C" or better.)

MATH 231 **Linear Algebra** **3.0 Units**
(formerly MATH 31)
An introduction to linear algebra that compliments advanced courses in calculus. Topics include systems of linear equations, matrix operations, determinants, vectors and vector spaces, eigenvalues and eigenvectors and linear transformations; with orthogonality, inner product spaces and numerical methods if time permits. Three lecture hours per week. CSU, UC. Offered Spring. (Prerequisite: MATH 105 with a grade of "C" or better.)

MATH 270 **Differential Equations**
(formerly MATH 27) **(CAN MATH 24)** **3.0 Units**
This course covers elementary differential equations, solutions of first order equations, linear equations with constant coefficients, simultaneous linear systems, series solutions, the Laplace transformation, and applications to physics and engineering. Three lecture hours per week. CSU, UC. Offered Spring. (Prerequisite: MATH 227 with a grade of "C" or better)

MEDIA ARTS

MERT 50 (formerly MEART 40) **Principles of Animation 3.0 Units**

This course investigates the fundamental principles of 3D animation. The student will explore the historical development of the animation industries, preproduction, 3D modeling and the basics of 3D animation. Repetition of this course provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. (No prerequisite. ART 125, ART 133A, or CIS 101 are recommended. Grade Option.) This course may be taken three times.

MERT 51 (formerly MEART 41) **Intermediate Modeling and Animation with SoftImage XSI 3.0 Units**

This course uses a guided digital studio approach in a close analysis of the practical production skills and techniques in 3D modeling and animation. Students will complete a combination of exercises, individual and group projects. Two lecture, three laboratory hours per week. (Prerequisite: MERT 50. Grade Option.) This course may be taken three times.

MERT 52 (formerly MEART 42) **Digital Character Animation 3.0 Units**

This course is an advanced study in digital character animation and feature-length digital media production. This course explores the relationships between anatomy, motion, weight, and timing through a balanced combination of exercises, individual and group projects. (Prerequisite: MERT 51. Grade Option.) This course may be taken three times.

MERT 53 (formerly MEART 43) **Advanced Animation with SoftImage XSI 3.0 Units**

This course is a close analysis of animation programming applications to automate 3D animation production. Course topics include programmed modeling, deformation, posing and kinematics. Two lecture, three laboratory hours per week. (Prerequisite: MERT 52. Grade Option.) This course may be taken three times.

MERT 54 (formerly MEART 44) **Advanced Techniques and Project Management with SoftImage XSI 3.0 Units**

This course is a close analysis of animation technology. Course topics include the history of animation technologies, environments, languages, asset control, and pipeline management. Two lecture, three laboratory hours per week. (Prerequisite: MERT 53. Grade Option.) This course may be taken three times.

MERT 55 (formerly MEART 45) **Post Production Techniques and Visual Effects with SoftImage XSI 3.0 Units**

This course is a an advanced study in digital animation visual processing for production. This course explores shader development, render management, particle systems and post-production operations through a balanced combination of exercises, individual and group projects. Two lecture, three laboratory hours per week. (Prerequisite: MERT 54. Grade Option.) This course may be taken three times.

MERT 56 **Photoshop for Animators 3.0 Units**

Students will learn the concepts and procedures required for creating high quality texture maps and imagery for use in 3D computer animation. Topics will include basic and advanced editing techniques, managing tone and color, layer management, optimization strategies and the use of filters. Compositing techniques will be addressed in detail. Relevant issues dealing with the pre-production process, and industry trends and analysis will also be discussed. Two lecture, three laboratory hours per week. (No prerequisite. Grade Option.) This course may be taken three times.

MERT 60 (formerly MEART 30) **Fundamentals of Game Design 3.0 Units**

This course introduces the techniques for electronic game design production. Topics include the past, present and future of the game industry, basic game programming concepts, game art requirements, file formats, creating game graphics, low-polygon count modeling, and motion capture. Artificial intelligence for opponent behaviors, networked systems, and multi-user play will also be examined. Two lecture, three laboratory hours per week. (No prerequisite. ART 133 , and CIS 101 are recommended. Grade Option.) This course may be taken three times.

MERT 61 (formerly MEART 31) **Game Design Interface Design 3.0 Units**

This course investigates user interface design for game design production. Topics include the use of DirectX and Direct3D in game engine and user interface I/O; user input devices; front-end visual game design tools, stock game engines; basic game programming concepts; and the balance of game performance and player immersion. Two lecture, three laboratory hours per week. (Prerequisite: MERT 60. Grade Option.) This course may be taken three times.

MERT 62 (formerly MEART 32) **Game Engine Programming 3.0 Units**

This course explores game engine programming for game design production. Topics include: the use of DirectX, Direct3D, and Win 32 in game engine design; algorithms, data structures, and memory management issues relevant to game engine design; the history and future of game engine programming; front-end visual game design tools; and the use of stock game engines. Two lecture, three laboratory hours per week. (Prerequisite: MERT 61. Grade Option.) This course may be taken three times.

MERT 63 (formerly MEART 33) **Multi-User Game Design 3.0 Units**

This course explores distributed multi-user game programming and design for game production. Topics include: the use of DirectX, Direct3D, and Win32 in multi-user game design; network performance bottleneck issues; cooperative client/server design to optimize available bandwidth; and the history and future projections of multi-user game design. Two lecture, three laboratory hours per week. (Prerequisite: MERT 60. Grade Option.) This course may be taken three times.

MERT 64 **Artificial Intelligence** **3.0 Units**
(formerly MEART 34)
This course explores artificial intelligence in game design. Topics include: the use of neural nets and genetic algorithms; giving the appearance of intelligence by using "smart" search, pursuit and avoidance algorithms; Turing Tests; and the techniques of modeling a variety of behavioral styles and levels of aggression. Two lecture, three laboratory hours per week. (Prerequisite: MERT 63. Grade Option.) This course may be taken three times.

MERT 65 **Game Production and Workflow**
(formerly MEART 35) **3.0 Units**
This is a course in game design project planning and production through hands-on experience. Students will work in teams to design and complete a game project, providing each student with portfolio preparation. Two lecture, three laboratory hours per week. (Prerequisite: MERT 64. Grade Option.) This course may be taken three times.

MERT 70 **Writing for Media Arts** **3.0 Units**
(formerly MEART 20)
This is a pragmatic course in creative writing for media production. Students will work in teams to design and complete writing projects in all industry formats. The student will present a portfolio presentation that displays all skills obtained in the course. Three lecture hours per week. (No prerequisite. Grade Option). This course may be taken two times.

MERT 72 **Portfolio Development** **3.0 Units**
(formerly MEART 22)
This course prepares the student to create and present an industry quality portfolio of skills obtained in the media arts. Topics include creating printed polio, developing CDROM portfolio, portfolios for the web and creating demo reels on videotape. This course intended for graduating media arts majors who are interviewing for employment or for transfer to four-year institutions. Two lecture, three laboratory hours per week. (No prerequisite. ART 112, ART 133, CIS 111, CIS 136 are recommended. Grade Option.) This course may be taken four times.

MERT 74 **Digital Video Production**
(formerly MEART 24) **3.0 Units**
This course introduces digital video production techniques. Course topics include the operation of digital camcorders, lighting, sound equipment and post production digital editing suites, and the principles of aesthetics of film and video editing. Two lecture, three laboratory hours per week. (No prerequisite. ART 133, CIS 101 are recommended. Grade Option.) This course may be taken four times.

MERT 76 **Digital Cinematography** **3.0 Units**
(formerly MEART 26)
This is a hands-on course in digital cinema planning and production. Course topics include artistic expression; an investigation of the aesthetic, technological, economic, and social factors that contributed to the evolution of digital cinema; logistics, scriptwriting, sound recording, film and sound editing. The roles and responsibilities of the digital cinema producer will be examined. Two lecture, three laboratory hours per week. (No prerequisite. CIDG 160, MERT 74, MERT 60, and MERT 50 are recommended. Grade Option.) This course may be taken three times.

MICROBIOLOGY

See Biology.

MUSIC

MUSC 56 **Summer Choir** **1.0 Unit**
(formerly MUSIC 46A-B-C-D)
An intensive choral ensemble organized to prepare a high quality concert program culminating in a 1 to 3 week performance tour to Europe, Asia, South America or various U.S. venues. Cost of each trip will vary depending on the trip taken. Three laboratory hours per week. This course will not apply to the Associate Degree. (Prerequisite: Audition to demonstrate basic musical ability necessary to satisfactorily function in a choral setting. Credit/No Credit) This course may be taken four times.

MUSC 66 **Victor Valley College Pep Band**
(formerly MUSIC 66) **1.0 Unit**
The study and performance of pep band literature will be emphasized. Proper playing and performance techniques will be stressed. Warm-up skills will be developed along with scale studies and rhythmic refinement. Public performance at Victor Valley College functions will be required. Three laboratory hours per week. (Prerequisite: Demonstrated ability at an acceptable level of proficiency, as evidenced by audition.) (Credit/No Credit) This course may be taken four times.

MUSC 100 **Introduction to Music** **3.0 Units**
(formerly MUSIC 10)
This course is a general introduction to the art of music, its nature, history, materials and vocabulary. The course examines the historical and contemporary value of music to the individual and society. Consideration will also be given to structural organizations of music composition and the characteristic styles of historical periods and important individuals. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

MUSC 101 **Fundamentals Of Music** **3.0 Units**
(formerly MUSIC 1)
A beginning study of the basic elements of music, including pitch and rhythm recognition, key signatures, intervals, time signatures, and major and minor scales and simple triads. Useful to those wishing to learn to sight read or play an instrument. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

MUSC 102 **Music Theory - Diatonic Practice,**
(formerly MUSIC 2A) **Part I** **3.0 Units**
Comprehensive theory-musicianship study centering on basic four-part diatonic harmonic practices. Use of triads in root position in all major and minor modes, principles of voice leading including doubling, spacing, voice ranges, part crossings, basic harmonic progression, and melodic construction. Emphasis on written and aural analysis, and creative application of concepts to musical composition. Stresses programmed instruction supported by computer and electronic teaching aids in an interactive classroom environment. Required for those majoring in music and useful to those desiring to write or arrange music for any purpose Two lecture, three Laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: MUSC 101 or equivalent information as demonstrated by pretest; concurrent enrollment in MUSC 104)

MUSC 103 **Music Theory - Diatonic Practice,**
(formerly MUSIC 2B) **Part II** **3.0 Units**
Continuation of MUSC 102, comprehensive theory-musicianship study centering on basic fourpart diatonic harmonic practices. Use of triads in all positions, principles of voice leading, harmonic progression, non-harmonic tones, and melodic construction. Emphasis on written and aural analysis, and creative application of concepts to musical and electronic teaching aids in an interactive classroom/lab environment. Required for those majoring in music and useful to those desiring to write or arrange music for any purpose. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: MUSC 101 or equivalent information as demonstrated by pretest; concurrent enrollment in MUSC 105)

MUSC 104 **Sight Singing/Ear Training**
(formerly MUSIC 4A) **Laboratory, Level I** **1.0 Unit**
Self-paced comprehensive individualized training in sight singing, developing mastery in rhythmic sight reading and playing, pitch matching and matching notation to inner hearing, and notating rhythmic and melodic dictation. Drill and practice through computer generated exercises using Music Lab software on the student's own computer and practice and testing in the college Music Computer Lab. Additional practice in small group sessions as needed. Student will pass five quiz levels in each of eight skills on the computer to receive credit for the appropriate course section. This course is open to anyone desiring to learn basic practical music reading skills; it is required of students taking Music Theory 102. Three laboratory hours per week. CSU, UC. (No prerequisite) (Credit/No Credit)

MUSC 105 **Sight Singing/Ear Training**
(formerly MUSIC 4B) **Laboratory, Level II** **1.0 Unit**
Self-paced, competency based, comprehensive individualized training in sight singing, developing mastery in rhythmic sight reading and playing, pitch matching and matching notation to inner hearing, and notating rhythmic and melodic dictation. Drill and practice through computer generated exercises using Music Lab software on the student's own computer and practice and testing in the college Music Computer Lab. Additional practice in small group sessions as needed. Student will pass five quiz levels in each of eight skills on the computer to receive credit for the appropriate course section. This course is open to anyone desiring to learn basic practical music reading skills; it is required of students taking Music Theory 104. Three laboratory hours per week. CSU, UC. (Prerequisite: MUSC 103) (Credit/No Credit)

MUSC 108 **Jazz Improvisation** **2.0 Units**
(formerly MUSIC 65)
A course of study designed to equip the student with an understanding of the theoretical principles utilized in jazz, presented in logical sequence as they apply to the improvised performance. Following the development of a background in musical fundamentals, including intervals, chord construction, scales, modes and chord progressions, the student is introduced to the methodology and materials of improvisation. Among topics covered are how to practice, what to practice, ear-training, melodic patterns, chord/scale relationship, solos of master improvisers, and the acquisition of a basic repertoire of tunes for improvised soloing. One hour lecture, three laboratory hours per week. CSU. (Prerequisite: Demonstrated ability at an acceptable level of proficiency, as evidenced by audition.) This course may be taken four times.

MUSC 110 **Elementary Piano**
(formerly MUSIC 15A) **(CAN MUS 22 = 15 A-B)** **1.0 Unit**
This course offers practical keyboard facility, sight reading, elementary improvisation and harmonization of folk melodies, and performance of simple piano selections. Useful to those desiring to learn to play the piano, organ or electronic keyboards. Three laboratory hours per week. CSU, UC. (UC credit limitation). Offered Fall, Spring. (No prerequisite)

MUSC 111 **Elementary Piano**
(formerly MUSIC 15B) **(CAN MUS 22 = 15 A-B)** **1.0 Unit**
This course is a continuation of MUSC 15A and offers practical keyboard facility, sight reading, elementary improvisation and harmonization of folk melodies, and performance of simple piano selections. Useful to those desiring to learn to play the piano, organ or electronic keyboards. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

MUSC 112 **Introduction to Music Technology**
(formerly MUSIC 5) **3.0 Units**
This course is a prerequisite or concurrent course to recording and electronic music classes. This course covers methods, concepts and devices, and a fundamental vocabulary used in contemporary music production and related media fields. This course also includes sound fundamentals, consumer audio equipment, personal computers and software, recording studios, AV productions, electronic recording studios, acoustic recording principles, and employment opportunities. Three lecture hours per week. CSU (No prerequisite)

MUSC 113 **Beginning MIDI Workstation**
(formerly MUSIC 6) **3.0 Units**
This class covers procedures, instructions and technology used in a contemporary MIDI synthesizer studio. Basic concepts of acoustics, techniques of electronic music synthesis, tape recording technology, sequencers, intelligent arrangers, algorithmic composers and non-linear editing in a digital audio workstation. Two lecture, three laboratory hours per week. CSU (No prerequisite)

MUSC 115 **History Of Music In Western Culture**
(formerly MUSIC 11) **3.0 Units**
A survey of the major trends and personalities in Western music and musical style from the Greeks to the present with emphasis on the place of music in the development of Western culture. Three lecture hours per week. CSU, UC. (No prerequisite)

MUSC 116 **Music In America** **3.0 Units**
(formerly MUSIC 12)
A survey of music in American life and culture from colonial times to the present, including both popular and art music styles. Three lecture hours per week. CSU, UC. (No prerequisite)

MUSC 117 History of Jazz 3.0 Units
(formerly MUSIC 13)
A survey of jazz from 1900 to the present, including what jazz is, African and European heritages, blues, Dixieland, ragtime, boogie woogie, swing, bop, cool, funky, gospel, third stream, jazz/rock, and free form. Lectures and structured listening and viewing. Three lecture hours per week. CSU, UC. (No prerequisite)

MUSIC 118 Survey of Rock and Roll 3.0 Units
(formerly MUSIC 14)
This course will discuss the unfolding of rock and roll as a modern musical genre. It will also discuss societal influence on its development as well as its impact on modern society. Other styles of contemporary commercial music will be discussed and analyzed within the general historical scope of this survey. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

MUSC 120A Applied Music - Voice 1.0 Unit
(formerly MUSIC 18A)
Coordinates the development of the music major's performance proficiency in their primary instrument. A minimum of fifteen half-hour lessons per semester with a teacher approved by the Music Department and at least two and one-half hours of individual practice, either on or off campus. Payment for lessons will be worked out directly between the teacher and student. All applied students will perform on faculty/student recitals and/or juried exam. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: For music transfer students. Declared music major. Demonstrated performance ability or potential on the instrument in question at an acceptable proficiency level, as demonstrated by audition. Audition criteria can be obtained from the Music Department.) This course may be taken four times.

MUSC 120B Applied Music - Piano 1.0 Unit
(formerly MUSIC 18B)
Coordinates the development of the music major's performance proficiency in their primary instrument. A minimum of fifteen half-hour lessons per semester with a teacher approved by the Music Department and at least two and one-half hours of individual practice, either on or off campus. Payment for lessons will be worked out directly between the teacher and student. All applied students will perform on faculty/student recitals and/or juried exam. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: For music transfer students. Declared music major. Demonstrated performance ability or potential on the instrument in question at an acceptable proficiency level, as demonstrated by audition. Audition criteria can be obtained from the Music Department.) This course may be taken four times.

MUSC 120C Applied Music-Guitar 1.0 Unit
(formerly MUSIC 18C)
Coordinates the development of the music major's performance proficiency in their primary instrument. A minimum of fifteen half-hour lessons per semester with a teacher approved by the Music Department and at least two and one-half hours of individual practice, either on or off campus. Payment for lessons will be worked out directly between the teacher and student. All applied students will perform on faculty/student recitals and/or juried exam. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: For music transfer students. Declared music major. Demonstrated performance ability or potential on the instrument in question at an acceptable proficiency level, as demonstrated by audition. Audition criteria can be obtained from the Music Department.) This course may be taken four times.

MUSC 120D Applied Music - Upper Strings
(formerly MUSIC 18D) 1.0 Unit
Coordinates the development of the music major's performance proficiency in their primary instrument. A minimum of fifteen half-hour lessons per semester with a teacher approved by the Music Department and at least two and one-half hours of individual practice, either on or off campus. Payment for lessons will be worked out directly between the teacher and student. All applied students will perform on faculty/student recitals and/or juried exam. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: For music transfer students. Declared music major. Demonstrated performance ability or potential on the instrument in question at an acceptable proficiency level, as demonstrated by audition. Audition criteria can be obtained from the Music Department.) This course may be taken four times.

MUSC 120E Applied Music - Low Strings
(formerly MUSIC 18E) 1.0 Unit
Coordinates the development of the music major's performance proficiency in their primary instrument. A minimum of fifteen half-hour lessons per semester with a teacher approved by the Music Department and at least two and one-half hours of individual practice, either on or off campus. Payment for lessons will be worked out directly between the teacher and student. All applied students will perform on faculty/student recitals and/or juried exam. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: For music transfer students. Declared music major. Demonstrated performance ability or potential on the instrument in question at an acceptable proficiency level, as demonstrated by audition. Audition criteria can be obtained from the Music Department.) This course may be taken four times.

MUSC 120F Applied Music - High Brass
(formerly MUSIC 18F) 1.0 Unit
Coordinates the development of the music major's performance proficiency in their primary instrument. A minimum of fifteen half-hour lessons per semester with a teacher approved by the Music Department and at least two and one-half hours of individual practice, either on or off campus. Payment for lessons will be worked out directly between the teacher and student. All applied students will perform on faculty/student recitals and/or juried exam. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: For music transfer students. Declared music major. Demonstrated performance ability or potential on the instrument in question at an acceptable proficiency level, as demonstrated by audition. Audition criteria can be obtained from the Music Department.) This course may be taken four times.

MUSC 120G **Applied Music - Low Brass**
(formerly MUSIC 18G) **1.0 Unit**
Coordinates the development of the music major's performance proficiency in their primary instrument. A minimum of fifteen half-hour lessons per semester with a teacher approved by the Music Department and at least two and one-half hours of individual practice, either on or off campus. Payment for lessons will be worked out directly between the teacher and student. All applied students will perform on faculty/student recitals and/or juried exam. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: For music transfer students. Declared music major. Demonstrated performance ability or potential on the instrument in question at an acceptable proficiency level, as demonstrated by audition. Audition criteria can be obtained from the Music Department.) This course may be taken four times.

MUSC 120H **Applied Music - Reeds** **1.0 Unit**
(formerly MUSIC 18H)
Coordinates the development of the music major's performance proficiency in their primary instrument. A minimum of fifteen half-hour lessons per semester with a teacher approved by the Music Department and at least two and one-half hours of individual practice, either on or off campus. Payment for lessons will be worked out directly between the teacher and student. All applied students will perform on faculty/student recitals and/or juried exam. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: For music transfer students. Declared music major. Demonstrated performance ability or potential on the instrument in question at an acceptable proficiency level, as demonstrated by audition. Audition criteria can be obtained from the Music Department.) This course may be taken four times.

MUSC 120I **Applied Music - Woodwinds**
(formerly MUSIC 18I) **1.0 Unit**
Coordinates the development of the music major's performance proficiency in their primary instrument. A minimum of fifteen half-hour lessons per semester with a teacher approved by the Music Department and at least two and one-half hours of individual practice, either on or off campus. Payment for lessons will be worked out directly between the teacher and student. All applied students will perform on faculty/student recitals and/or juried exam. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: For music transfer students. Declared music major. Demonstrated performance ability or potential on the instrument in question at an acceptable proficiency level, as demonstrated by audition. Audition criteria can be obtained from the Music Department.) This course may be taken four times.

MUSC 120J **Applied Music - Percussion**
(formerly MUSIC 18J) **1.0 Unit**
Coordinates the development of the music major's performance proficiency in their primary instrument. A minimum of fifteen half-hour lessons per semester with a teacher approved by the Music Department and at least two and one-half hours of individual practice, either on or off campus. Payment for lessons will be worked out directly between the teacher and student. All applied students will perform on faculty/student recitals and/or juried exam. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: For music transfer students. Declared music major. Demonstrated performance ability or potential on the instrument in question at an acceptable proficiency level, as demonstrated by audition. Audition criteria can be obtained from the Music Department.) This course may be taken four times.

MUSC 122 **Beginning Voice Production**
(formerly MUSIC 41) **1.0 Unit**
Fundamental techniques of proper voice production including healthy use of the voice for speaking and singing. Teaches proper relaxation and support techniques, speech intensification, vocal freedom and resonance, and emotional support for the singing and speaking process. Designed to meet the needs of those who use their voices for solo and/or ensemble singing or in such vocally intense activities as teaching, group leading, sales, coaching, or for those taking courses in speech communication and acting. Three laboratory hours per week. Offered Fall, Spring. CSU, UC. (No prerequisite)

MUSC 123 **Intermediate Voice Class** **1.0 Unit**
(formerly MUSIC 42)
Application of the vocalization techniques of Music 41 to the study of vocal performance. Attention to diction, tone color, song styles and interpretation. Some basic instruction in Italian, French or German diction. Intensive solo performance in a wide range of musical styles. Useful to anyone desiring to continue the development of the singing voice and performance potential. Repetition of the class provides opportunity for increased skills development. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: MUSC 122 or equivalent skills, i.e. formal basic instruction in fear control, proper body relaxation, breath support, vocal focus and some experience in solo vocal performance.) This course may be taken four times.

MUSC 124 **Beginning Guitar** **1.0 Unit**
(formerly MUSIC 60A)
This course offers the study and performance of music for the beginning guitarist. It gives the student with no knowledge of guitar performance the opportunity to learn basic reading skills through simple guitar pieces. Some public performance will be required. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No Prerequisite.)

MUSC 125 **Beginning Guitar** **1.0 Unit**
(formerly MUSIC 60B)
This course offers further study and performance of music for the beginning guitarist. It gives the student with minimal knowledge of guitar performance the opportunity to learn basic reading skills through simple guitar pieces. Some public performance will be required. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

MUSC 126 **Guitar Ensemble** **1.0 Unit**
(formerly MUSIC 63)
This course offers the study and performance of music for guitar ensemble. It gives the student with basic knowledge of guitar performance skill the opportunity to perform in an ensemble setting. Some public performance will be required. Repetition provides for increased skill development. Three laboratory hours per week. CSU, UC. (Prerequisite: Student must audition.) This course may be taken four times.

MUSC 128 Special Topics
(formerly MUSIC 28)
See Special Topics listing (Variable units).

MUSC 129 Independent Study
(formerly MUSIC 29)
See Independent Study listing (1-3 units).

MUSC 130 Women's Choir 1.0 Unit
(formerly MUSIC 20)
A treble choir of female voices to perform repertoire from all styles and periods of music written or arranged for treble choir. Emphasis on the development of the total choral musicianship skills of each singer within the group context. Choir will perform at various college and community functions. Three laboratory hours per week. CSU, (UC credit pending) (No prerequisite. Credit/No Credit) This course may be taken four times.

MUSC 131 The College Singers 3.0 Units
(formerly MUSIC 21)
A select chamber choral ensemble of mixed voices to perform at various college and community functions. Repertoire includes significant choral music from all periods of music history, including motets and madrigals, part songs, masses and cantatas with orchestra, 20th century choral songs, and spirituals, vocal jazz and Broadway arrangements. Music is most often performed in the original languages. Emphasis on development of the total choral musicianship skills of each singer. Group may tour out of state or to Europe. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: Solo audition. Applicant should possess strong basic choral/vocal skills and experience in choral singing i.e. ability to sing on pitch with a well supported, clear choral tone; strong ear able to retain and accurately recall parts learned; basic sight reading skills; team player willing to take direction. Number of singers accepted in any section may be limited by the requirements of part balance and the repertoire planned for that semester.) (Grade option) This course may be taken four times.

MUSC 132 Master Arts Chorale 1.0 Unit
(formerly MUSIC 55)
A large choral ensemble dedicated to the performance of major choral works from all musical periods, often with orchestra. Group may tour from time to time in the United States and abroad. Membership open by audition to all students as well as to members of the community. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: Solo audition to determine ability to match pitch, sing in tune, carry a harmony part, level of music reading. Prior choral experience in a high school, college/university, community or church choir desirable.) (Credit/No Credit) This course may be taken four times.

MUSC 134 Musical Theatre Lab 1.0 Unit
(formerly MUSIC 22A-B-C-D)
Preparing the vocal and instrumental music for the college's musical productions. Participation as major leads, supporting roles, chorus or orchestra members as determined by audition. Enrollment in B, C, and D provides the opportunity for increased skill development. Three laboratory hours per week. CSU, UC. Offered Spring. (Prerequisite: Demonstrated ability at an acceptable level of proficiency, as evidenced by audition. Grade option) This course may be taken four times.

MUSC 135 Beginning Band 0.5 Unit
(formerly MUSIC 25)
This course will be a study and performance of standard elementary band literature composed for the beginning and intermediate level wind and percussion literature. Proper breathing and phrasing techniques will be emphasized along with specific instrument performance technique. One and one-half laboratory hours per week. CSU (Prerequisite: Student must audition. Credit/No Credit.) This course may be taken four times.

MUSC 136 College Symphonic Band 1.0 Unit
(formerly MUSIC 34)
This course will emphasize the performance of standard college wind literature. Proper playing and performance technique will be stressed. Warm-up skills will be developed along with scale studies and rhythmic refinement. At least two public performances will be required. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite. Student must audition. Credit/No credit) This course may be taken four times.

MUSC 137 Instrumental Ensemble 2.0 Units
(formerly MUSIC 30)
The study and performance of music for various instrumentations. Gives the student with instrumental experience an opportunity to rehearse and perform together. Public performances. Repeat enrollment provides added opportunity for improvement and develop mentor musical skills. One lecture, four laboratory hours per week. CSU, UC. (No prerequisite) This course may be taken four times.

MUSC 138 Cooperative Education
(formerly MUSIC 38)
See Cooperative Education listing (1-8 Units). CSU

MUSC 139 Studio Band 1.0 Unit
(formerly MUSIC 31)
This course provides playing experience in the field of dance, jazz and popular music, including at least two public performances a semester. Improvisation skills, sight reading skills, ear training skills, and performance practice skills will be emphasized. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: Student must audition. Credit/No Credit) This course may be taken four times.

MUSC 140 Studio Singers
(formerly MUSIC 33) 1.0 Unit
A select vocal ensemble dedicated to the study and performance in jazz styles arranged for vocal jazz ensemble. Appearances at public and private functions will be made throughout the year. Subsequent enrollment in additional semesters will provide the student an opportunity for additional skill and competency development with the subject matter. Three laboratory hours per week. CSU, UC (Prerequisite: Student must audition. Credit/No Credit) This course may be taken four times.

MUSC 141 **Jazz Rock Combo** **1.0 Unit**
(formerly MUSIC 32)
This course applies the beginning principles and skills for jazz performance within the jazz combo medium. Improvisation, music theory, stylistic interpretation and ensemble are applied to the appropriate level for the individual student. Public performance is included as a course requirement. Three laboratory hours per week. CSU (Prerequisite: Student must audition. Credit/No Credit) This course may be taken four times.

MUSC 143 **Beginning String Ensemble**
(formerly MUSIC 61A) **0.5 Unit**
This course will be a beginning study and performance of standard string orchestra literature composed for the beginning string player. Proper left hand position (excluding the use of third position), beginning bow techniques, appropriate performance practices will be emphasized. One and one half laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: Students must audition for this ensemble. Alternative course is MUSC 137. Credit/No Credit.) This course may be taken four times.

MUSC 144 **Preludium String Ensemble**
(formerly MUSIC 62) **0.5 Unit**
This course will be an intermediate study and performance of standard string orchestra literature composed for the intermediate string player. Proper left hand position (excluding the use of third position), intermediate bow techniques, appropriate performance practices will be emphasized. One and one half laboratory hours per week. CSU (Prerequisite: Student must audition for this ensemble. Alternative course is Music 137. Credit/No Credit.) This course may be taken four times.

MUSC 145 **College Symphony Orchestra**
(formerly MUSIC 35) **0.5 Unit**
This course will be a study and performance of standard full orchestral literature for the beginning and intermediate string, wind and percussion player. Emphasis will be on ensemble skills, ear training and performance practices. One and one-half laboratory hours per week. CSU, UC (Prerequisite: Student must audition.) This course may be taken four times.

MUSC 146 **Symphony Orchestra** **2.0 Units**
(formerly MUSIC 36)
This course will be a study and performance of standard orchestral literature composed for the advanced orchestral player. Proper performance practices will be emphasized along with a varying number of public performances. Members will perform and rehearse with the Victor Valley Symphony Orchestra. One lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite) This course may be taken four times.

MUSC 147 **Brass Choir** **0.5 Unit**
(formerly MUSIC 37)
This course will explore brass choir literature and performance through the baroque up to the 21st century. Specific technical skills will be addressed including breathing, phrasing, tonguing and ornamentation practices. Public performances are required. One and one-half laboratory hours per week. CSU, UC (Prerequisite: Student must audition. Credit/No credit) This course may be taken four times.

MUSC 202 **Advanced Theory -**
(formerly MUSIC 3A) **Chromatic Practice** **3.0 Units**
The study of chromatic harmonic practices, including all types of seventh chords, dominant seventh and leading tone seventh functions, secondary dominants and secondary leading tone chords, altered non-harmonic tones, modulation to closely related keys, and borrowed chords. Continued development of basic musicianship skills, including visual and aural seventh chord recognition, rhythmic reading, melodic, contrapuntal and harmonic dictation. Emphasis on individualized programmed instruction, including the use of computers, small group and other interactive teaching aids. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: Completion of MUSC 102; concurrent enrollment in MUSC 203)

MUSC 203 **Sight Singing/Ear Training**
(formerly MUSIC 4C) **Laboratory, Level III** **1.0 Unit**
Self-paced, competency based, comprehensive individualized training in sight singing, developing mastery in rhythmic sight reading and playing, pitch matching and matching notation to inner hearing, and notating rhythmic and melodic dictation. Drill and practice through computer generated exercises using Music Lab software on the student's own computer and practice and testing in the college Music Computer Lab. Additional practice in small group sessions as needed. Student will pass five quiz levels in each of eight skills on the computer to receive credit for the appropriate course section. This course is open to anyone desiring to learn basic practical music reading skills; it is required of students taking Music Theory 202. Three laboratory hours per week. CSU, UC. (Prerequisite: MUSC 105) (Credit/No Credit)

MUSC 204 **Advanced Theory - Chromatic**
(formerly MUSIC 3B) **Practice, Part II** **3.0 Units**
Extends the concepts in MUSC 3A through use of foreign modulations, borrowed and augmented chords, neopolitan and other sixth chords, chromatic third relation harmony and ninth, eleventh and thirteenth chords. Continued development of basic musicianship skills, including visual and aural seventh chord recognition, rhythmic reading, melodic, contrapuntal and harmonic dictation. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: Completion of MUSC 202)

MUSC 205 **Sight Singing/Ear Training**
(formerly MUSIC 4D) **Laboratory, Level IV** **1.0 Unit**
Self-paced comprehensive individualized training in sight singing, developing mastery in rhythmic sight reading and playing, pitch matching and matching notation to inner hearing, and notating rhythmic and melodic dictation. Drill and practice through computer generated exercises using Music Lab software on the student's own computer and practice and testing in the college Music Computer Lab. Additional practice in small group sessions as needed. Student will pass five quiz levels in each of eight skills on the computer to receive credit for the appropriate course section. This course is open to anyone desiring to learn basic practical music reading skills; it is required of students taking Music Theory 204. Three laboratory hours per week. CSU, UC. (Prerequisite: MUSC 203) (Credit/No Credit)

MUSC 210 **Intermediate Piano** **1.0 Unit**
(formerly MUSIC 16A)
This course offers the continued development of keyboard facility from including harmonization of given melodies using appropriate intermediate accompaniments, furthered exploration of piano repertoire and related skills, styles and technical exercises. Two octave major and minor scales, arpeggios, and harmonization skills will be explored. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

MUSC 211 **Intermediate Piano** **1.0 Unit**
(formerly MUSIC 16B)
This course offers the continuation and development of practical keyboard facility from accompaniments, exploration of piano repertory and related stylistic and technical exercises. The study of basic elements of music, including pitch and rhythm recognition, key signatures, intervals, time signatures, major and minor scales, and simple triads. Useful to those wishing to learn to sight read or play an instrument, and for those who wish to write music. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

NURSING

NURS 138 **Cooperative Education**
(formerly NURS 38)
(See Cooperative Education 1-8 units). CSU

NURS 148 **Special Topics**
(formerly NURS 48)
See Special Topics listing (Variable units).

NURS 149 **Independent Study**
(formerly NURS 49)
See Independent Study listing (1-3 units).

NURS 220 **Pharmacology and Nursing**
(formerly NURS 20) **Management** **2.0 Units**
This course is a nursing class about the study of drug therapy to prevent, diagnose, or cure disease processes or to relieve signs and symptoms of diseases. It includes content specific to the registered nurse and utilization of the nursing process to fulfill nursing responsibility in medication management of clients. It must be taken concurrently with NURS 221 by students admitted to the Associate Degree nursing (ADN) program. Two lecture hours per week. CSU (No prerequisite: Corequisite: NURS 221)

NURS 221 **Nursing Process 1** **10.0 Units**
(formerly NURS 21)
An introduction to the Victor Valley College Associate Degree Nursing Program and the nursing profession. Emphasis is on the Nursing Process and fundamentals of nursing; including risk management, health promotion, psycho-social aspects, electrolyte and acid-base management, and the perioperative experience practiced in various clinical settings and the classroom laboratory. Five lecture, fifteen laboratory hours per week. CSU. (Prerequisite: Anatomy, Physiology, and Microbiology completed with a "C" or better. (Corequisite: NURS 220)

NURS 222 **Nursing Process 2** **9.0 Units**
(formerly NURS 22)
The Nursing Process applied to family nursing and the childbearing family, the adaptations of nursing care for various stages of growth and development, and the nursing management required in common adult conditions; e.g., nutritional, tissue perfusion, elimination. Four lecture, fifteen laboratory hours per week. CSU (Prerequisite: NURS 220 and NURS 221)

NURS 223 **Nursing Process 3** **9.0 Units**
(formerly NURS 23)
The Nursing Process applied to critical care areas, psychiatric/mental health and complex geriatric care. Emphasis will be on client adaptation in chronic and acute illness. Four lecture, fifteen laboratory hours per week. CSU (Prerequisite: NURS 222)

NURS 224 **Nursing Process 4** **9.0 Units**
(formerly NURS 24)
The Nursing Process applied with a holistic view to multi-system problems with a comprehensive approach in the hospital and community setting. Clinical experience demonstrates the use of legal, ethical, and leadership principles, and the ability to function with minimum supervision as a preceptor. Four lecture, fifteen laboratory hours per week. CSU (Prerequisite: NURS 223)

NURS 225 **Licensed Vocational Nurse**
(formerly NURS 25) **(LVN) to Registered Nurse**
(RN) Transition Course
1.0 Unit
A transition course with emphasis on role development for the Licensed Vocational Nurse (LVN) entering the VVC Registered Nurse (RN) program. Includes concepts of nursing process, Nursing Practice Act, critical thinking, problem solving, and skill proficiency. Three lecture hours for six weeks. CSU. (Prerequisites: Current California Licensure as an LVN and Physiology and Microbiology [Mandated - State of California].)

NURS 226 **Critical Cardio Respiratory**
(formerly NURS 26) **Nursing** **2.0 Units**
This optional nursing course provides an introduction to critical care nursing environment. Pathophysiology, diagnosis, treatment and nursing implication for patients in the critical care area will be discussed. This course will benefit primarily students going into their third semester of nursing as well as other medical personnel with medical, surgical or cardiac care background. Six lecture hours per week for six weeks. CSU. (Prerequisites: NURS 222 and/or licensed as a Registered Nurse or Licensed Vocational Nurse. Grade Option.)

NURS 245 **Nursing Leadership**
(formerly NURS 45) **and Management** **3.0 Units**
Leadership and management techniques used in various health care settings, with emphasis on problem solving within the changing role of nursing as it relates to patient care and professional relationships. Two hours lecture and three hours laboratory per week. (Prerequisite: NURS 223 or equivalent with a "C" or better, or permission of the Nursing Program Director). Contact Nursing Dept. Offered intermittently.

NURS 246 **Patient Assessment** **2.0 Units**
(formerly NURS 46)
An overview of patient assessment skills, including physical, psychological and sexual aspects. Four lecture hours per week for nine weeks. (No prerequisite). Contact Nursing Dept. Offered intermittently.

OCEANOGRAPHY

OCEA 101 **Oceanography** **3.0 Units**
(formerly OCEAN 10)
An introduction to the marine environment. Methods and techniques of exploration, physics, and chemistry of the oceans; adaptation of organisms; significance of the marine environment to man. A general survey of the major aspects of oceanography; history, topography and geography, geology, chemistry, physics, meteorology, biology, and resource management. Three lecture hours per week. Offered Fall and Spring. CSU, UC. (No prerequisite)

PHILOSOPHY

PHIL 101 **Introduction To Philosophy:**
(formerly PHILOS 6) **Enduring Questions**
(CAN PHIL 2) **3.0 Units**
Introduction to philosophy through a discussion of basic questions about existence, knowledge, and value. Three lecture hours per week. CSU, UC. Offered Fall, Spring (No prerequisite. Eligibility for ENGL 101 recommended)

PHIL 108 **Contemporary Moral Issues**
(formerly PHILOS 8) **(CAN PHIL 4)** **3.0 Units**
Introduction to moral philosophy. Study of ethical theories and their application to contemporary moral issues in the areas of bio-medical practice, law and violence, sexuality, social and economic justice, the environment, and business conduct. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite. Eligibility for ENGL 101 recommended)

PHIL 109 **Introduction to Logic**
(formerly PHILOS 9) **(CAN PHIL 6)** **3.0 Units**
Introduction to the philosophical study of arguments: argument analysis and evaluation, induction, deduction, fallacies, categorical reasoning, propositional logic. Required assignments are completed by computer. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite.)

PHIL 120 **Introduction to Ancient and**
(formerly PHILOS 20A) **Medieval Philosophy** **3.0 Units**
Introduction to the major movements and figures in the ancient and medieval thought of Europe, India, and China: the Pre-Socratics, Plato, and Aristotle; Augustine, Aquinas, Ibn Sina, and Ibn Rushd; Samkhya, Vedanta, Theravada, and Mahayana thought; and Kongzi, Mengzi, and Zhuangzi. Three lecture hours per week. CSU, UC. Offered Fall. (No prerequisite. Eligibility for ENGL 101 recommended.)

PHIL 121 **Introduction to Modern and**
(formerly PHILOS 20B) **Contemporary Philosophy**
3.0 Units
Survey of the main issues and thinkers in European thought since the Renaissance: Continental Rationalism, British Empiricism, Kant, Hegel, Marx, Utilitarianism, Nietzsche, Pragmatism, Analytic Philosophy, and Existentialism. Introduction to post-colonial African and Latin American philosophy and to recent feminist thought. Three lecture hours per week. CSU, UC. Offered Spring. (No prerequisite: Eligibility for ENGL 101 recommended.)

PHIL 128 **Special Topics**
(formerly PHILOS 28)
See Special Topics listing (Variable units).

PHILOS 129 **Independent Study**
(formerly PHILOS 29)
See Independent Study listing (1-3 units).

PHIL 207 **Introduction To Critical Thinking**
(formerly PHILOS 7) **3.0 Units**
Study and practice in critical thinking and advanced English composition, including the analysis, evaluation, and formulation of arguments; the critical study of texts; and the composition of critical essays. Application of critical thinking and writing skills to topics in the areas of values and religion. See cross listing for RLST 207. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: ENGL 101 with a grade of "C" or better.)

PHOTOGRAPHY

PHOT 50 **Commercial Photographic**
(formerly PHOTO 50) **Applications** **2.0 Units**
This course will introduce the application of photographic imaging to the commercial marketplace. It will stress the use of photography as it applies to the graphic design field as well as portraiture, product and editorial applications. Business principles of this field will also be covered. Two lecture, three laboratory hours for nine weeks. (No prerequisite) This course may be taken three times.

PHOT 51 **Environmental Photography**
(formerly PHOTO 51) **3.0 Units**
This course will cover basic camera exposure and composition for a variety of outdoor settings. Topics include: landscape photography, animal photography, flower photography, sports photography, macro photography and outdoor portraits. The uses and understanding of filters, flash and film. Some field trips will be required. Two lecture, three laboratory hours per week . (No prerequisite) This course may be taken four times.

PHOT 52 **Introduction to Photoshop**
(formerly PHOTO 52) **3.0 Units**
This course will introduce the basics of Adobe PhotoShop and its application to digital photography utilizing the Macintosh and PC platforms. Two lecture, three laboratory hours per week. (No prerequisite) This course may be taken three times.

PHOT 53 **Basic Photographic Lighting Techniques** **3.0 Units**
(formerly PHOTO 53)
This course will introduce the student to the fundamentals of lighting and its application to imaging processes. A broad range of topics will be covered that include portraiture, product and commercial applications. Two lecture, three laboratory hours per week. (No prerequisite) This course may be taken two times.

PHOT 54 **Portfolio Design** **2.0 Units**
(formerly PHOTO 54)
This course will present visual problems for the student to solve for the purpose of creating a traditional and digital portfolio. One and one-half lecture, one and one-half laboratory hours per week. (No prerequisite) This course may be taken two times.

PHOT 100 **Beginning Photography**
(formerly PHOTO 1A) **3.0 Units**
This is a course that introduces the basics of black and white photography. Technical and conceptual topics will be covered. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite. Grade Option.) This course may be taken four times.

PHOT 101 **Intermediate Photography**
(formerly PHOTO 1B) **3.0 Units**
This course will concentrate upon the use of 35mm format cameras. The use of exposure meters, lighting techniques, and black and white filters, RC and fiber base papers will be incorporated with individual projects. Two lecture, three laboratory hours per week. CSU, UC. Offered alternate semesters. (No prerequisite)

PHOT 102 **Advanced Photography** **3.0 Units**
(formerly PHOTO 2)
Continued study of black and white processes with focus upon areas of special interest. Two lecture, three laboratory hours per week. CSU. Offered alternate semesters. (No prerequisite)

PHOT 103 **Alternative Imaging Process**
(formerly PHOTO 3) **3.0 Units**
This course emphasizes special effects that may be gained by manipulation of black and white photo-sensitive materials and hand coloring. Two lecture, three laboratory hours per week. CSU. Offered alternate years. (No prerequisite)

PHOT 104 **Basic Color Photography** **3.0 Units**
(formerly PHOTO 4)
The theoretical and practical work in using color positive (slides) and negative film. Students will gain experience in using filters for various lighting situations. Color processors and Polaroid systems may be explored. Two lecture, three laboratory hours per week. CSU. Offered alternate years. (No prerequisite)

PHOT 105 **Portraiture** **3.0 Units**
(formerly PHOTO 5)
Designed for the digital photographer who wishes to specialize in the field of portraiture. The course will cover studio and outdoor portrait techniques as well as elements of fashion photography. Two lecture, three laboratory hours per week. CSU. (No prerequisite) This course may be taken two times.

PHOT 106 **Introduction to Photojournalism**
(formerly PHOTO 6) **2.0 Units**
This lab class is an introduction to the basics of photojournalism including basic photography skills, digital imaging, processing, composition, and production of written news stories. See cross-listing for JOUR 106. Six laboratory hours per week. CSU. (No prerequisite.) This course may be taken two times.

PHOT 128 **Special Topics**
(formerly PHOTO 28)
See Special Topics listing (Variable units). Offered Fall, Spring.

PHOT 129 **Independent Study**
(formerly PHOTO 29)
See Independent Study listing (1-3 units). Offered Fall, Spring.

PHOT 138 **Cooperative Education**
(formerly PHOTO 38)
See Cooperative Education listing (1-8 units). CSU

PHYSICAL EDUCATION

GENERAL PHYSICAL EDUCATION COURSES

PE 76 **Athletic Training III** **2.0-6.0 Units**
In this course, students will provide the pre-participation, on-site first aid and event maintenance for fall/winter/spring sports programs at VVC (baseball, basketball, football, golf, soccer, softball, tennis, volleyball and wrestling.) Experience will include but is not limited to, prophylactic taping and padding, immediate first aid, monitoring vital signs, completion of accident forms, proper use of universal biohazard precautions, supervision of safe playing conditions and coaching techniques, recognition of medical emergencies, assisting other medical personnel as needed, game preparation and pre-participation medical screenings. See cross listing for ALDH 76. Eighteen laboratory hours per week. (Prerequisite: PE 141 or ALDH 141, Athletic Training I, or equivalent.) This course may be taken four times.

PE 77 **Athletic Training IV** **2.0-6.0 Units**
In this course, students will provide the care to athletes involved in fall/winter/spring sports programs at VVC (baseball, basketball, football, golf, soccer, softball, tennis, volleyball and wrestling.) Experience will include but is not limited to development and implementation of rehabioitation protocols. Use of modalities including, whirlpool, ultrasound, ice, Emergency Medical Services, hydrocolator, Range of Motion exercises, joint mobilization, strengthening exercises (isokinetic, isotonic, isometric), cardiovascular conditioning and proprioceptive exercises. See cross listing for ALDH77. Eighteen laboratory hours per week. (Prerequisite: PE 141 or ALDH 141, Athletic Training I, or equivalent.) This course may be taken four times.

PE 101 **Introduction to Exercise Science**
(formerly PE 45) **and Kinesiology** **3.0 Units**
An introduction and orientation to physical education as a profession. An exploration of sub-disciplines (physical movement, health, recreation, and dance.) Explores career opportunities, critical analysis and comparative analysis of literature, philosophy, and scientific research. Three lecture hours per week. CSU (No prerequisite)

PE 102 **Contemporary Problems in**
(formerly PE 12) **Personal and**
Community Health **3.0 Units**
An introductory course emphasizing the scientific basis for making rational decisions on contemporary health problems of personal and social significance. Course includes personal nutrition, fitness, reproduction, and disease control. The course also includes a review of other current issues of community health. See cross listing for ALDH 102. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

PE 103 **History and Appreciation of Dance**
(formerly PE 20) **3.0 Units**
Origin, growth, and development of dance (in all forms) since the beginning of man. Man's philosophies as related to the development of dance. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite. Credit/Grade option) This course may be taken four times.

PE 104 **Psychology of Physical**
(formerly PE 42) **Performance** **3.0 Units**
An introduction to the discipline of sports psychology for students with no previous background in the field. Topics include: orientation to sports psychology, individual differences and sport behavior, social environmental and sports behavior, and intervention techniques and sport behavior. Three lecture hours per week. CSU (No prerequisite)

PE 105 **Developmental Movement for**
(formerly PE 47) **Children Ages 0-11** **3.0 Units**
This course provides a comprehensive overview of theories and methods relating to the development of a physical education program for children ages 0-11 years including children with special needs and abilities. Emphasis is on the application of principles of physical growth and development to the teaching and acquisition of specific physical skills. The course curriculum is consistent with the California State Department of Education Physical Education Framework. Three lecture hours per week. CSU (No prerequisite)

PE 120 **Theory Of Baseball** **1.0 Unit**
(formerly PE 48)
Introduction and study of fundamental skills, techniques, and rules. Provides knowledge of off-season programs, strength programs, practice schedules, and coaching strategies. Covers warm-up to working on the diamond. Also includes prevention and care of injuries involved in baseball. Three lecture hours per week for six weeks. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option)

PE 121 **Theory Of Basketball** **1.0 Unit**
(formerly PE 50)
A course of study in the basic concepts which are practiced and utilized in the coaching of and participation in basketball from elementary levels through college. Three lecture hours per week for six weeks. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option)

PE 122 **Theory Of Football** **1.0 Unit**
(formerly PE 49)
An in-depth look into the game of football covering offensive and defensive strategies and the drills and organization that are essential for a successful program. Designed for the player, spectator, or coach. Three lecture hours per week for six weeks. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option)

PE 123 **Theory Of Soccer** **1.0 Unit**
(formerly PE 55)
An introduction to the skills, drills, and strategies for organizing and coaching soccer. Designed for the spectator, player, or coach. Three lecture hours per week for six weeks. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/ Grade option)

PE 124 **Theory Of Softball** **1.0 Unit**
(formerly PE 56)
A basic softball theory class with field and classroom instruction. Material will be presented from a competitive playing and coaching viewpoint. Three lecture hours per week for six weeks. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option)

PE 125 **Tennis Theory** **1.0 Unit**
(formerly PE 51)
An analysis of the game of tennis beyond the physical mechanics of strokes. Emphasis will be on psychological conditioning, strategy and "percentage tennis." Three lecture hours per week for six weeks. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option)

PE 126 **Theory Of Volleyball** **1.0 Unit**
(formerly PE 60)
A course of study in the basic concepts which are practiced and utilized in the coaching of and participation in volleyball. Three lecture hours per week for six weeks. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option)

PE 128 **Special Topics**
(formerly PE 28) See Special Topics listing (Variable units).

PE 140 **Care and Prevention of Injuries**
(formerly PE 53) **Related to Physical Activity**
3.0 Units
An introduction to the principles and processes of athletic training. Study of the components of training: preventive techniques, injury recognition and classification, management processes, emergency techniques, rehabilitation processes, body part labeling and functions, and drug/tobacco usage by athletes. Focus is on the broad basis of caring for the athlete's injuries by utilizing methods, objectives, and information from physical education and biological sciences. Three lecture hours per week. Offered Fall, Spring. CSU, UC. (No prerequisite)

PE 141 **Athletic Training I** **3.0 Units**
(formerly PE 30)
Introduction to principles of athletic training, including prevention, evaluation, treatment and rehabilitation of common athletic injuries. Two and one half lecture hours, one and one half laboratory hours per week. CSU. See cross listing for ALDH/41. Offered Fall, Spring. (No prerequisite. Interest and/or experience in athletics and sports recommended.)

PE 142 **Athletic Training II** **3.0 Units**
(formerly PE 31)
This course will build on the students basic knowledge of human anatomy and athletic injuries. Topics will include emergency procedures, current health concerns of the athlete, protective devices, advanced taping techniques and injury management. See cross listing for ALDH 142. Three lecture, one laboratory hour per week. CSU. (Prerequisite: PE 141 or ALDH 141 Athletic Training I, or equivalent.)

PE 150 **Lifetime Fitness Concepts**
(formerly PE 43) **1.0-2.0 Units**
Designed to help the students understand the role of physical fitness in daily living. Covers the "how" and "why" of physical activity. Acquaints the student with the structure of the human body and its functions in relation to physical activity. Students will learn to evaluate their own fitness needs and design a program for present and future needs. One and one half lecture, one and one half laboratory hours per week (2.0 units) or one lecture hour per week (1.0 unit). CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option)

PE 151 **Officiating Recreational and**
(formerly PE 23) **Team Activities** **3.0 Units**
This class provides practical experience with an emphasis on knowledge and interpretation of rules to include: softball, baseball, soccer, volleyball, and basketball. The general principles, philosophy, rules and mechanics of officiating will be covered. Two lecture, three laboratory hours per week. CSU (No prerequisite. Grade Option.)

PE 160 **Physical Fitness** **1.0 Unit**
(formerly PE 6A)
An exercise course designed to emphasize fitness by offering the student a variety of exercises and aerobic work which can be used to maintain fitness throughout life. Repetition provides the opportunity for increased skill development. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option) This course may be taken four times.

PE 161 **Physical Fitness II** **1.0 Unit**
(formerly PE 6B)
An exercise course for those students who have been consistently participating in a fitness program for 9-12 months for approximately three hours a week. The course is designed to emphasize the components of fitness by offering the student a variety of exercises and aerobic workouts at an intermediate level. Repetition of the course provides the opportunity for increased skill development. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring. Credit/Grade option. This course may be taken four times.

PE 162 **Weight Training** **1.0 Unit**
(formerly PE 6C)
Techniques of weight training. The principles of strength development, proper nutrition, the physiology of muscle tissue, and safety. Exercises emphasizing strength, endurance, and flexibility. Repetition of the course provides the opportunity for increased skill development. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option) This course may be taken four times.

PE 163 **Weight Lifting II** **1.0 Unit**
(formerly PE 6D)
A weight lifting course for those students who have been consistently participating in a weight lifting program for 6-12 months for approximately three hours a week. This course is designed to emphasize continued individual growth in the areas of body building, body sculpturing and strength at an intermediate or above level. Repetition of the course provides the opportunity for increased skill development. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring. Credit/Grade option. This course may be taken four times.

PE 164 **Aerobic Weight Training** **1.0 Unit**
(formerly PE 6E)
Aerobic Weight Training combines strength and cardiovascular fitness training into a comprehensive weight training program that has as its major objective the development of all-around fitness. It offers measurable benefits to muscular strength, muscular endurance, body composition, flexibility, and cardiovascular/ aerobic fitness. Repetition of the course provides the opportunity for increased skill development. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option) This course may be taken four times.

PE 165 **Basketball** **1.0 Unit**
(formerly PE 10A)
An introduction to the basic skills, rules, and strategies of basketball, including passing, catching, shooting, and dribbling. Repetition of the course provides the opportunity for increased skill development. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/ Grade option) This course may be taken four times.

PE 166 **Volleyball** **1.0 Unit**
(formerly PE 10B)
An introduction to the basic skills, rules and strategies of volleyball, including setting, serving, spiking, bumping, and blocking. Repetition of the course provides the opportunity for increased skill development. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/ Grade option) This course may be taken four times.

PE 168 **Self Defense** **1.0 Unit**
(formerly PE 13)
An in-depth look into the skills of self defense. Defensive strategies to protect oneself from attack. Also, necessary steps to avoid attack. Designed for all ages. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option) This course may be taken four times.

PE 180 **Tennis** **1.0 Unit**
(formerly PE 2)
Presentation of the official doubles games. Includes forehand and backhand strokes, the serve, basic strategy, footwork, and etiquette. Repetition provides the opportunity for increased skill development. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/ Grade option) This course may be taken four times.

PE 181 **Golf** **1.0 Unit**
(formerly PE 7)
An introduction to the basic skills, rules, and strategies of golf. Repetition of the course provides the opportunity for increased skill development. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option) This course may be taken four times.

PE 182 **Softball** **1.0 Unit**
(formerly PE 10C)
Softball techniques and strategies. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option) This course may be taken four times.

PE 183 **Soccer** **1.0 Unit**
(formerly PE 10D)
Soccer techniques and strategies. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option) This course may be taken four times.

PE 184 **Baseball** **1.0 Unit**
(formerly PE 10G)
Baseball techniques and strategies. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option) This course may be taken four times.

PE 185 **Football Techniques and**
(formerly PE 10H) **Conditioning** **1.0 Unit**
Course will include drills and exercises to develop the skills, techniques, and conditioning essential for participation in the game of football. Six laboratory hours per week for nine weeks. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option) This course may be taken four times.

PE 186 **Beginning Aqua Aerobics 1.0 Unit**
(formerly PE 35)
Aqua aerobics is designed to improve cardiovascular endurance, muscular strength and endurance, and flexibility, without the negative effects of gravity. Aerobic activities, calisthenics, and stretching are set to music and performed in a swimming pool. Students do not have to be able to swim. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Doctor's written approval if previous problem with any other exercise program. Credit/Grade option) This course may be taken three times.

PE 187 **Fundamentals of Track and Field**
(formerly PE 40) **1.0 Unit**
Instruction in rules and techniques, as well as practice in skills, basic to successful performance in selected track and field events. Three laboratory hours per week. CSU, UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/ Grade option) This course may be taken three times.

PE 188 **Beginning Disc** **1.0 Unit**
(formerly PE 46)
Students will learn some of the various styles of disc throws, games associated with a disc, and solo techniques. Emphasis will be placed on learning some basic throwing techniques and the rules of the common games within the disc sport. Three laboratory hours per week. CSU (No prerequisite. Grade option) This course may be taken four times.

PE 266 **Advanced Volleyball** **1.0 Unit**
(formerly PE 11B)
Designed for the advanced student who may wish to compete or coach at a competitive level. Advanced techniques in defensive and offensive skills and strategies will be covered. Rules and a variety of competition formats will be discussed and used. Three laboratory hours per week. CSU (No prerequisite) This course may be taken four times.

DANCE COURSES

PEDA 101 **Dance Rhythmic Analysis**
(formerly PE 27) **3.0 Units**
This course is designed to introduce students to music as related to movement. This introduction will use techniques from music notation and simple music forms applied to all movement activities. Three lecture hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

PEDA 150 **Dance Production** **3.0 Units**
(formerly PE 21T)
Uses the techniques of the dance courses to develop choreography skills to produce dances for production purposes. Repetition provides the opportunity for increased skill development. One lecture, six laboratory hours per week. CSU, UC. Offered Fall, Spring, Summer. Credit/Grade option. This course may be taken four times.

PEDA 151 World Dance 2.0 Units
(formerly PE 24)
This course is designed to introduce students to the elements of dances and dance techniques from specific regional areas, cultures, or ethnic groups. This introduction will include the geographic, historic, social and aesthetic factors that have shaped the development and function of such movement. Dances from at least three culture areas will be used as examples during a semester, and will vary from semester to semester. See cross listing for ANTH 151. One lecture, three laboratory hours per week. CSU, UC (No prerequisite) This course may be taken four times.

PEDA 152 Dance Choreography I 2.0 Units
(formerly PE 26A)
This course is designed to introduce students to the basic elements of dance choreography. Choreography students will work in solo and small groups by using concepts of space, time, and energy to investigate and explore the basic elements of dance. One lecture, three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

PEDA 153 Dance Choreography II 2.0 Units
(formerly PE 26B)
This course is designed to introduce students to the advanced elements of dance choreography. Choreography students will work in solo and small groups by using concepts of space, time, and energy to investigate and explore the advanced elements of dance. One lecture, three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

PEDA 160 Beginning Tap 1.0 Unit
(formerly PE 21C)
Development of basic knowledge and skill in tap dancing, commonly used in musical productions and theater. See cross listing for TA 160. Three laboratory hours per week. CSU (No prerequisite. Credit/Grade option) This course may be taken four times.

PEDA 161 Intermediate Tap 1.0 Unit
(formerly PE 21D)
Development of intermediate knowledge of skill in tap dancing, commonly used in musical productions and theater. See cross listing for TA 161. Three laboratory hours per week. CSU (Prerequisite: Student may be required to audition and be approved by instructor for entrance to class. Credit/Grade option) This course may be taken four times.

PEDA 162 Ballroom Dance I 1.0 Unit
(formerly PE 22A)
Techniques, styles and rhythms of basic social dances from selected historical periods. Emphasis on exploring the movement characteristics of the dances through dancing. Three laboratory hours per week. CSU, UC (No prerequisite. Credit/Grade option) This course may be taken four times.

PEDA 163 Ballroom Dance II 1.0 Unit
(formerly PE 22B)
Techniques, styles and rhythms of the basic social dances from selected historical periods. Emphasis on exploring the movement characteristics of the basic social dances through dancing. Three laboratory hours per week. CSU, UC (No prerequisite. Credit/Grade option) This course may be taken four times.

PEDA 164 Creative Movement I 1.0 Unit
(formerly PE 25A)
This course is designed to introduce students into exploring improvisation through specific stimulus leading to the acquisition of basic improvisational skills. Students will work in solo and group presentations. Three laboratory hours per week. CSU, UC (No prerequisite. Credit/Grade option) This course may be taken four times.

PEDA 165 Creative Movement II 1.0 Unit
(formerly PE 25B)
This course is designed to introduce students into exploring improvisation through specific stimulus leading to the acquisition of basic improvisational skills and develop progressively more complex skills. Students will work in solo and group presentations using improvisational skills to solve choreographic problems. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

PEDA 166 Ballet I 1.0 Unit
(formerly PE 36A)
Technique and style of beginning ballet dance. Emphasis on exploring the movement characteristics of ballet through dancing. See cross listing or TA 166. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

PEDA 167 Ballet II 1.0 Unit
(formerly PE 36B)
Technique and style of secondary level II ballet dance. Emphasis on exploring the movement characteristics of level II ballet through dancing. See cross listing or TA 167. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

PEDA 169 Alignment and Correctives I
(formerly PE 21P) 1.0 Unit
This beginning level course in alignment and corrective work is based on exercises and concepts developed by Joseph Pilates. The course will include mat work and apparatus work in the universal reformer and will emphasize alignment and balance of muscle groups though strengthening, stretching, breathing, and concentration. Three laboratory hours per week. CSU (No prerequisite) This course may be taken four times.

PEDA 170 Jazz Dance I 1.0 Unit
(formerly PE 37A)
Technique and style of beginning jazz dance. Emphasis on exploring the movement characteristics of jazz through dancing. See cross listing or TA 170. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

PEDA 171 **Jazz Dance II** **1.0 Unit**
(formerly PE 37B)
Technique and style of level II jazz dance. Emphasis on exploring the movement characteristics of secondary level of jazz through dancing. See cross listing or TA 171. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

PEDA 174 **Modern Dance I** **1.0 Unit**
(formerly PE 39A)
Technique and style of beginning modern dance. Emphasis on exploring the movement characteristics of level I modern dance through dancing. See cross listing or TA 174. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

PEDA 175 **Modern Dance II** **1.0 Unit**
(formerly PE 39B)
Technique and style of secondary level II modern dance. Emphasis on exploring the movement characteristics of secondary level II modern dance through dancing. See cross listing or TA 175. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

PEDA 176 **Dance Rehearsal and**
(formerly PE 41A) **Performance I** **1.0-3.0 Units**
This course is designed to introduce students to the methods used for dance rehearsal and performance. Students will learn the etiquette of dance rehearsal and performance, develop skills needed for quick pick up in dance choreography, and performance skills needed for dance production purposes. Repetition of this course provides an increase of developed skills. Three laboratory hours per week per unit. CSU (No prerequisite. Grade option) This course may be taken four times.

PEDA 177 **Dance Rehearsal and**
(formerly PE 41B) **Performance II** **1.0-3.0 Units**
This course is designed to introduce students to the methods used for dance rehearsal and performance. Students will learn the etiquette of dance rehearsal and performance, develop skills needed for quick pick up in dance choreography, and performance skills needed for dance production purposes. Repetition of this course provides an increase of developed skills. Three laboratory hours per week per unit. CSU (No prerequisite. Grade option) This course may be taken four times.

PEDA 266 **Ballet III** **1.0 Unit**
(formerly PE 36C)
Technique and style of intermediate level III ballet dance. Emphasis on exploring the movement characteristics of intermediate level III ballet through dancing. See cross listing or TA 266. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

PEDA 267 **Ballet IV** **1.0 Unit**
(formerly PE 36D)
Technique and style of advanced level IV ballet dance. Emphasis on exploring the movement characteristics of advanced level IV ballet through dancing. See cross listing or TA 267. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

PEDA 270 **Jazz Dance III** **1.0 Unit**
(formerly PE 37C)
Technique and style of intermediate level III jazz dance. Emphasis on exploring the movement characteristics of intermediate level III jazz through dancing. See cross listing or TA 270. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

PEDA 271 **Jazz Dance IV** **1.0 Unit**
(formerly PE 37D)
Technique and style of level IV jazz dance. Emphasis on exploring the movement characteristics of advanced level IV jazz through dancing. See cross listing or TA 271. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

PEDA 274 **Modern Dance III** **1.0 Unit**
(formerly PE 39C)
Technique and style of intermediate level III modern dance. Emphasis on exploring the movement characteristics of intermediate level III modern dance through dancing. See cross listing or TA 274. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

PEDA 275 **Modern Dance IV** **1.0 Unit**
(formerly PE 39D)
Technique and style of advanced level IV modern dance. Emphasis on exploring the movement characteristics of advanced level IV modern dance through dancing. See cross listing or TA 275. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

PEDA 276 **Dance Rehearsal and**
(formerly PE 41C) **Performance III** **1.0-3.0 Units**
This course is designed to introduce students to the methods used for dance rehearsal and performance. Students will learn the etiquette of dance rehearsal and performance, develop skills needed for quick pick up in dance choreography, and performance skills needed for dance production purposes. Repetition of this course provides an increase of developed skills. Three laboratory hours per week per unit. CSU (No prerequisite. Grade option) This course may be taken four times.

PEDA 277 **Dance Rehearsal and**
(formerly PE 41D) **Performance IV** **1.0-3.0 Units**
This course is designed to introduce students to the methods used for dance rehearsal and performance. Students will learn the etiquette of dance rehearsal and performance, develop skills needed for quick pick up in dance choreography, and performance skills needed for dance production purposes. Repetition of this course provides an increase of developed skills. Three laboratory hours per week per unit. CSU (No prerequisite. Grade option) This course may be taken four times.

ADAPTED PHYSICAL EDUCATION COURSES

APE 160 **Adapted Physical Exercise**
(formerly PE 5) **1.0 Unit**
Individualized fitness program designed for those with limitations. Designed to maintain or increase fitness levels. Repetition of the course provides the opportunity for increased skill development. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option) This course may be taken four times.

APE 161 **Adapted Virtual Reality**
(formerly PE 5C) **Snow Skiing** **1.0 Unit**
The adapted virtual reality snow skiing course is designed to develop student's participation in life-long activities whereas never experienced before. The main focus of the class is encountering the rehabilitative benefits of virtual reality, traveling to a variety of ski resorts throughout the world, and having fun. Three laboratory hours per week. CSU (No prerequisite. Grade Option.) This course may be taken four times.

APE 162 **Adapted Virtual Reality Football**
(formerly PE 5D) **1.0 Unit**
The adapted virtual reality football course is designed to develop student's participation in life-long activities whereas never experienced before. The main focus of the class is encountering the rehabilitative benefits of virtual reality, traveling to a variety of NFL football fields around the country, and having fun. Three laboratory hours per week. CSU, UC (No prerequisite. Grade Option.) This course may be taken four times.

APE 163 **Wheelchair Basketball** **1.0 Unit**
(formerly PE 5F)
The wheelchair basketball course is designed to develop student's gross motor skills and to facilitate their participation in life-long activities enhancing improved fitness, self-esteem, and social interaction in basketball. Activities include but are not limited to basketball. Fitness, rules, and sportsmanship will also be addressed. Three laboratory hours per week. CSU, UC (No prerequisite. Grade Option.) This course may be taken four times.

APE 164 **Adapted Aerobic Dance** **1.0 Unit**
(formerly PE 5J)
This course is designed to meet the needs of students who require restricted or modified activities. Individualized dance exercise programs will be performed by students with instruction covering the elements of dance as a means towards physical fitness. Emphasis will be placed on dance movements, cardiovascular training principles and techniques. Three laboratory hours per week. CSU, UC (No prerequisite. Grade Option.) This course may be taken four times.

APE 165 **Adapted Modern Dance** **1.0 Unit**
(formerly PE 5N)
This course is designed to meet the needs of students who require restricted or modified activities. Individualized exercise programs will be performed by students with instruction covering the elements of modern dance. Emphasis will be placed on dance training principles and techniques. Three laboratory hours per week. CSU, UC (No prerequisite. Grade Option.) This course may be taken four times.

APE 166 **Adapted Cardiovascular Training**
(formerly PE 5P) **1.0 Unit**
This course is designed to meet the needs of students who require restricted or modified activities. Individualized cardiovascular exercise programs will be performed by students with instruction covering the elements of physical fitness. Emphasis will be placed on cardiovascular training principles and techniques. Three laboratory hours per week. CSU, UC (No prerequisite. Grade Option.) This course may be taken four times.

APE 167 **Adapted Weight Training** **1.0 Unit**
(formerly PE 5Q)
This course is designed to meet the needs of students who require restricted or modified activities. Individualized exercise programs will be performed by students with instruction covering the elements of physical fitness through weight training. Emphasis will be placed on principles and techniques. Three laboratory hours per week. CSU, UC (No prerequisite. Grade Option.) This course may be taken four times.

APE 168 **Adapted "Senior Moments"**
(formerly PE 5R) **Exercise Class** **1.0 Unit**
This course is designed to meet the needs of senior and elderly students with special needs who require restricted or modified activities. Individualized exercise programs will be performed by students with instruction covering the elements of physical fitness. Emphasis will be placed on weight training principles and techniques in a fun and friendly environment. Three laboratory hours per week. CSU, UC (No prerequisite. Grade Option.) This course may be taken four times.

APE 169 **Adapted "Zipper Club"**
(formerly PE 5S) **Cardiac Rehab** **1.0 Unit**
This course is designed to meet the needs of students with disabilities/special needs who require restricted or modified activities pertaining to the heart. Individualized exercise programs for cardiac rehab students will be performed with instruction covering the elements of cardiovascular fitness. Emphasis will be placed on principles and techniques. Three laboratory hours per week. CSU, UC (No prerequisite. Grade Option.) This course may be taken four times.

APE 180 **Adapted Outdoor Adventure**
(formerly PE 5B) **1.0 Unit**
The adapted outdoor adventure course is designed to develop student's gross motor skills and to facilitate their participation in life-long activities enhancing improved fitness, self-esteem and social interaction. The main focus of the class is experiencing the benefits of outdoor adventure. Three laboratory hours per week. CSU (No prerequisite. Grade Option.) This course may be taken four times.

APE 181 **Therapeutic Horseback Riding**
(formerly PE 5E) **1.0 Unit**
The therapeutic horseback riding course is designed to develop student's gross motor skills and to facilitate their participation in life-long activities enhancing improved fitness, self-esteem, and social interaction. The main focus of the class is experiencing the therapeutic benefits of horseback riding. Three laboratory hours per week. CSU, UC (No prerequisite. Grade Option.) This course may be taken four times.

APE 182 **Wheelchair Tennis** **1.0 Unit**
(formerly PE 5G)
The wheelchair tennis course is designed to develop student's gross motor skills and to facilitate their participation in life-long activities enhancing improved fitness, self-esteem, and social interaction in tennis. Activities include but are not limited to tennis. Fitness, rules, and sportsmanship will also be addressed. Three laboratory hours per week. CSU, UC (No prerequisite. Grade Option.) This course may be taken four times.

APE 183 **Adapted Walking for Fun Fitness**
(formerly PE 5H) **1.0 Unit**
This course is designed to meet the needs of students who require restricted or modified activities. Individualized cardiovascular exercise programs will be performed by students with instruction covering the elements of physical fitness. Emphasis will be placed on cardiovascular training principles and techniques through walking. Three laboratory hours per week. CSU, UC (No prerequisite. Grade Option.) This course may be taken four times.

APE 184 **Adapted Aquatics** **1.0 Unit**
(formerly PE 5K)
This course is designed to meet the needs of students who require restricted or modified activities. Maintenance and/or development of basic physical/mental skills, knowledge, and attitude for satisfactory participation in aquatics (swimming, gait, fitness). Measured skill performance and cardiovascular fitness are stressed. Three laboratory hours per week. CSU, UC (No prerequisite. Grade Option.) This course may be taken four times.

APE 185 **Adapted Sports and Games**
(formerly PE 5L) **1.0 Unit**
The adapted sports and games course is designed to develop student's gross motor skills and to facilitate their participation in life-long activities enhancing improved fitness, self-esteem, and social interaction. Activities include but are not limited to bowling, softball, and frisbee. Fitness, rules, and sportsmanship will also be discussed. Three laboratory hours per week. CSU, UC (No prerequisite. Grade Option.) This course may be taken four times.

APE 186 **Adapted Fishing** **1.0 Unit**
(formerly PE 5M)
The adapted fishing course is designed to develop student's gross motor skills and to facilitate their participation in life-long activities enhancing improved fitness, self-esteem, and social interaction in fishing. The main focus of the class is fitness through fishing. Activities include but are not limited to fishing. Fitness, rules, and sportsmanship will also be discussed. Three laboratory hours per week. CSU, UC (No prerequisite. Grade Option.) This course may be taken four times.

PHYSICAL SCIENCE

PSCI 101 **Principles Of Physical Science**
(formerly PHY SCI 1) **3.0 Units**
A general education course dealing with basic concepts of the physical sciences including astronomy, geology, meteorology, and oceanography. Three lecture hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring. (No prerequisite)

PSCI 114 **Environment and Energy**
(formerly PHY SCI 14) **3.0 Units**
A consideration of the problems associated with the combination of growing demand for energy and resources with decreasing reserves and increasing environmental disruption associated with the acquisition and use of these resources. New and future energy production and conversion methods, including solar, nuclear, fusion, and geothermal. Three lecture hours per week. CSU, UC. (No prerequisite)

PSCI 115 **Frontiers Of Science** **3.0 Units**
(formerly PHY SCI 15)
Selected topics of current interest studied in terms of modern scientific methods. Subjects may include, but are not restricted to, black holes, ancient astronomies, UFOs. Within this context, basic physical laws and concepts will be developed. Three lecture hours per week. CSU, UC (UC - see Independent Study credit limitation). (No prerequisite)

PSCI 128 **Special Topics**
(formerly PHY SCI 28)
See Special Topics listing (Variable units).

PSCI 138 **Cooperative Education**
(formerly PHY SCI 38)
See Cooperative Education listing (1-8 units). CSU

PHYSICS

PHYS 100 **Introductory Physics** **4.0 Units**
(formerly PHYSICS 10)
An introduction to physics for students who have not had physics, or who have not had physics recently. Fundamental principles of mechanics, waves, heat, electricity and magnetism, light, atomic and nuclear physics. Three lecture, three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (Prerequisite: MATH 50 with a grade of "C" or better.)

PHYS 128 **Special Topics**
(formerly PHYSICS 28)
See Special Topics listing (Variable units). CSU

PHYS 129 **Independent Study**
(formerly PHYSICS 29)
See Independent Study listing (1-3 units). CSU

PHYS 138 **Cooperative Education**
(formerly PHYSICS 138)
See Cooperative Education listing (1-8 units). CSU

PHYS 201 **Engineering Physics**
(formerly PHYSICS 1A) **(Mechanics Of Solids)**
(1A-B-C-HD: CAN PHYS SEQ B)
4.0 Units

Vectors, rectilinear motion, motion in a plane, particle dynamics, work and energy, conservation laws, collisions, rotational kinematics and dynamics. Three lecture, three laboratory/discussion hours per week. CSU, UC (UC credit limitation). Offered Fall. (Prerequisite: High school physics, or PHYS 100, or equivalent; MATH 226. MATH 226 may be taken concurrently)

PHYS 202 **Engineering Physics**
(formerly PHYSICS 1B) **(Mechanics Of Fluids,Heat and Sound) (1A-B-C-HD: CAN PHYS SEQ B)** **4.0 Units**

Equilibrium of rigid bodies, oscillations, gravitation, fluid statics and dynamics, waves in elastic media, sound, and thermodynamics. Three lecture, three laboratory/discussion hours per week. CSU, UC (UC credit limitation). Offered Spring. (Prerequisite: PHYS 201 and MATH 227. MATH 227 may be taken concurrently)

PHYS 203 **Engineering Physics (Electricity**
(formerly PHYSICS 1C) **and Magnetism) (CAN PHYS 12) and (1A-B-C-HD: CAN PHYS SEQ B)** **4.0 Units**

Charge and matter, the electric field, electric potential, capacitors and dielectrics, direct current and resistance, electromotive force and circuits, the magnetic field, inductance, magnetic properties of matter, electromagnetic oscillations, alternating currents, electromagnetic waves, and the Maxwell Equations. Three lecture, three laboratory/discussion hours per week. CSU, UC (UC credit limitation). Offered Fall semester in even-numbered years. (Prerequisite: PHYS 202 and MATH 228. MATH 228 may be taken concurrently)

PHYS H204 **Honors Engineering Physics**
(formerly PHYSICS H1D) **(Light and Modern Physics) (CAN PHYS 14) and (1A-B-C-HD: CAN PHYS SEQ B)**
4.0 Units

The nature and propagation of light, reflection and refraction, interference, diffraction, gratings and spectra, relativity, elements of quantum physics, waves and particles. See Honors Program listing for further information on admission to the Honors Program. Three lecture, three laboratory/discussion hours per week. CSU, UC (UC credit limitation). Offered Spring semester in odd numbered years. (Prerequisite: PHYS 203)

PHYS 221 **General Physics**
(formerly PHYSICS 2A) **(CAN PHYS 2)** **4.0 Units**

Vectors, motion in one and two dimensions, particle dynamics, work and energy, conservation laws, collisions, rotational motion and dynamics, thermodynamics. Three lecture, three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall semester in odd-numbered years. (Prerequisite: MATH 226. MATH 226 may be taken concurrently.)

PHYS 222 **General Physics**
(formerly PHYSICS 2B) **(CAN PHYS 4)** **4.0 Units**

Electromagnetic theory, oscillations, waves, geometrical optics, interference and diffraction quantum physics, atomic and nuclear physics. Three lecture, three laboratory hours per week. CSU, UC (UC credit limitation). Offered Spring semester in even-numbered years. (Prerequisite: General PHYS 221, MATH 227. MATH 227 may be taken concurrently.)

PHYSIOLOGY

See Biology.

POLITICAL SCIENCE

POLS 50 **United States Government**
(formerly POL SCI 50) **3.0 Units**

An introduction to the study of American national, state and local government organizations as established under the constitutions of these governments. Satisfies the American institutions and state and local government requirements. Three lecture hours per week. Offered Spring. (No prerequisite. Grade option)

POLS 101 **Introduction to Political Science**
(formerly POL SCI 1A) **3.0 Units**

An introduction to modern politics and the scope of political science as a discipline. Presents a comprehensive survey of the study of political science, modern political ideologies and movements, participation, institutions of government, political issues and foreign affairs of nation-states around the world. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite)

POLS 102 **Introduction To American**
(formerly POL SCI 1B) **Government and Politics (CAN GOVT 2)** **3.0 Units**

Analysis of the Constitution and study of its historical development. Surveys the powers, structure, and operation at the national, California state, and local levels with emphasis upon the national level. Examination of the causes, consequences, and possible solutions to important problems in contemporary America. Three lecture hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite)

POLS H102 **Honors American Government**
(formerly POL SCI H1B) **and Politics (CAN GOVT 2)** **4.0 Units**

Examines the workings of our complex system of American government, including: national, California state, and local levels (with emphasis on the national level). This survey will focus on the historical and contemporary development of our Constitution, political institutions, citizen participation, politics, and policies. Critical analysis of classical and contemporary scholarly texts and political oratory will be used extensively to examine the American political experience. Four lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite)

POLS 103 **State and Local Government**
(formerly POL SCI 3) **3.0 Units**
An introduction to the study of the American political system at the state and local levels of government. Examines the workings of our complex system of federalism by focusing on contemporary state and local government institutions, citizen participation, political problems, politics, and policies. Emphasis is given to the analysis of California political issues, politics and government. Three lecture hours per week. CSU. Offered Spring. (No prerequisite)

POLS 110 **Contemporary World Affairs**
(formerly POL SCI 10) **3.0 Units**
An introduction to the analysis of the historical development and contemporary setting of political relations between and among nation-states, trans-national movements, and international organizations. Introduces the analytical approaches to the study of world affairs and theories of international conflict and cooperation. Explores the variety of governmental and non-governmental entities on the world stage today, their foreign policy goals and interests, and instruments and uses of power. Examines contemporary issues confronting the global community and the historical development and uses of international law and organizations. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

POLS 111 **The United Nations System**
(formerly POL SCI 11) **and International Issues 3.0 Units**
This course is a survey of contemporary international issues and international organizations. Topics, such as "terrorism," geopolitical relationships, and ethnic conflicts, will be examined within the context of the United Nations system and its related regional organizations. This course will assist students to prepare for Model United Nations conference competitions. Participation in the Model United Nations conference competitions is voluntary and not a requirement for this course. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite. Grade Option)

POLS 112 **Comparative Government**
(formerly POL SCI 2) **3.0 Units**
An introduction to the comparative analysis of contemporary political systems and their environments around the world. Examines current political institutions, citizen participation, political problems, politics, and policies within these systems. Emphasis is given to selected nation-states in order to provide a broader, representative knowledge encompassing a variety of modern political systems and environments reflecting the geographic regions of the world. Three lecture hours per week. CSU, UC. Offered Fall. (No prerequisite)

POLS 120 **Leadership** **2.0 Units**
(formerly POL SCI 20)
This course is designed for any student interested in leadership within an organization. The course will assist students interested in campus leadership positions to identify effective leadership characteristics and their role in institutional maintenance and change. Focus will include (but is not limited to) developing leadership styles, needs assessment, policy, finance, public speaking, parliamentary procedure, comparative forms of collegial governmental process, communication skills, program, development and evaluative methods. Two lecture hours per week and a total of 15 laboratory hours. CSU. Offered Fall, Spring. (No prerequisite) This course may be taken four times.

POLS 128 **Special Topics**
(formerly POL SCI 28)
See Special Topics listing (Variable units).

POLS 129 **Independent Study**
(formerly POL SCI 29)
See Independent Study listing (1-3 units).

POLS 130 **Introduction to Paralegalism**
(formerly POL SCI 30) **3.0 Units**
Examines the developing role of the paralegal within the American legal system, both in the litigation context and other legal work. This survey will introduce the student to the terminology, techniques and concepts of legal research and writing; the ethical rules that attorneys and paralegals are bound by; and the functions of the paralegal within a private law firm, as a business owner, as a litigation assistant and as an agency advocate. Six lecture hours per week for nine weeks. CSU. Offered Fall, Spring, Summer. (No prerequisite)

POLS 131 **Fundamentals of Litigation**
(formerly POL SCI 31) **for Paralegals** **3.0 Units**
Examines the intricate working of the American court system and the role of the paralegal in litigation practice. This survey will focus on the litigation process that begins with a client interview, extends through the filing of a lawsuit, develops into discovery stage, takes final shape in the trial stage and ends in enforcement of a judgment or an appeal. Critical analysis of statutory and judicial rules for the conduct of litigation will be used extensively to provide a strong foundation for operating within the legal field. Six lecture hours per week for nine weeks. CSU. Offered Fall. (No prerequisite)

POLS 132 **Research and Writing for**
(formerly POL SCI 32) **Paralegals** **3.0 Units**
Provides in-depth review of the sources and means of legal research with considerable hands-on practice as well as the development of good legal writing skills. This class will focus on developing the student's ability to locate and use various types of legal authority, including constitutions, statutes, court opinions and administrative regulations and decisions. The student will learn and practice Shepardizing and cite-checking skills. Critical analysis of proper legal writing forms, stressing logic, clarity and format will be used to shape the student's ability to perform the basic functions of a paralegal. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

POLS 133 **Legal Ethics for Paralegals**
(formerly POL SCI 33) **3.0 Units**
This course examines the role of the paralegal in the rendering of legal services by attorneys to clients and the problematic matter of ethical rules that govern that relationship. The student will become familiar with the concept of the unauthorized practice of law, the criminal penalties such practice carries and the best means to avoid liability for it. Comprehensive study of the multiple categories of ethical rules will give the student a broad base from which to operate ethically and legally in the field of law. Three lecture hours per week. CSU. Offered Spring. (No prerequisite)

POLS 134 **Family Law for Paralegals**
(formerly POL SCI 34) **3.0 Units**
This course examines family law rules and procedures and the role of the paralegal in a family law practice. The student will become familiar with family law concepts including marital contracts, annulment, separation, dissolution, child custody and support, alimony, property divisions, adoption and tax consequences of family law procedures. Students will also become acquainted with current problems in family law including the demise of marriage, homosexual marriages and adoptions and surrogate motherhood. Three lecture hours per week. CSU. Offered Fall. (No prerequisite)

POLS 135 **Tort Law for Paralegals 3.0 Units**
(formerly POL SCI 35)
This course introduces the paralegal to the world of tort law ; takes them through the basic concepts that are the foundation of all tort cases (duty, breach of duty, negligence or willfulness, proximate cause, foreseeability and damages); presents the categories of tort litigation and finally covers the privileges and immunities that will defeat a tort lawsuit. Three lecture hours per week. CSU. Offered Spring. (No prerequisite)

POLS 138 **Cooperative Education**
(formerly POL SCI 38)
See Cooperative Education listing (1-8 units).

PSYCHOLOGY

PSYC 101 **Introductory Psychology**
(formerly PSYCH 1A) **Cooperative Education**
(CAN PSY 2) **3.0 Units**
This course provides instruction in the nature of human behavior and a consideration of theories and principles pertaining to the topics of research design and experimentation, perception, emotions and motivation, personality, social psychology, psychopathology, human development, learning, cognition and memory. Includes essential features of the biological and neurological basis of behavior. Three lecture hours per week. CSU, UC Offered Fall, Spring, Summer. (No prerequisite. Eligibility for ENGL 101 recommended)

PSYC H101 **Honors Introductory Psychology**
(formerly PSYCH H1A) **(CAN PSY 2)** **4.0 Units**
This course provides instruction in the nature of human behavior and a consideration of theories and principles pertaining to the topics of research design and experimentation, perception, emotions and motivation, personality, social psychology, psychopathology, human development, learning, cognition and memory. Includes essential features of the biological and neurological basis of behavior. Four lecture hours per week. CSU, UC (Prerequisite: Enrollment in honors course requires acceptance into the Honors Program or prior approval of the instructor. Eligibility for ENGL 101 recommended)

PSYC 102 **Introduction To Experimental**
(formerly PSYCH 1B) **Psychology** **3.0 Units**
The psychology experiment, critiques of published research, basic statistical procedures. Each student conducts and reports several experiments. Three lecture hours per week. CSU, UC. (No prerequisite)

PSYC 103 **Personal and Social Adjustment**
(formerly PSYCH 3) **3.0 Units**
Approaches to understanding of personality, the dynamics of personality, personal adjustment, mental hygiene. Three lecture hours per week. CSU. (No Prerequisite. Grade option)

PSYC 105 **Personal and Career Success**
(formerly PSYCH 5) **3.0 Units**
This intensive course is designed to assist students in obtaining the skills and knowledge necessary to identify and reach their personal and educational objectives. Topics covered include: self-awareness, motivation and discipline, memory development, time management, communication skills, career planning, study skills, life skills, and an orientation to college life. See cross listing for GUID 105. Three lecture hours per week. CSU. (No prerequisite)

PSYC 108 **Identifying and Helping**
(formerly PSYCH 8) **Survivors of**
Dysfunctional Families 3.0 Units
This course explores the symptoms, theories, and dynamics of family dysfunction. Family dysfunction contributes to drug addiction, alcoholism, depression, promiscuity, unfulfilling relationships, co-dependency, family violence, stress disorders, and other psychopathologies. Theories and strategies of intervention and recovery for victims are presented emphasizing the breaking of destructive patterns and promotion of wellness. Six lecture hours per week for nine weeks. CSU. Offered Fall, Spring. (No prerequisite)

PSYC 109 **Neuropsychlogical Basis**
of Behavior **3.0 Units**
The course relates states and behaviors such as addiction, cirdadian rhythms, emotion, learning, thought, memory, motivation, movement, reproduction, sensation and perception, sleep and abnormal behavior to the structure and function of the nervous system. The roles of medications/illicit drugs, hormones, exercise and nutrition are also examined. Three lecture hours per week. CSU. (No prerequisite)

PSYC 110 **Developmental Psychology**
(formerly PSYCH 10) **3.0 Units**
This course includes the study of the theories, methods, and research findings regarding biosocial, cognitive, and psychosocial development of the individual from conception through adulthood, including death, dying, and bereavement. Three lecture hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Eligibility for ENGL 101 and satisfactory completion of PSYC 101 recommended.)

PSYC H110 **Developmental Psychology**
(formerly PSYCH H10) **Honors** **4.0 Units**
This course includes the study of the theories, methods, and research findings regarding biosocial, cognitive, and psychosocial development of the individual from conception through adulthood, including death, dying, and bereavement. Four lecture hours per week. CSU, UC Offered Fall, Spring, Summer. (Prerequisite: Enrollment in honors course requires acceptance into the Honors Program or prior approval of the instructor. Eligibility for ENGL 101 and satisfactory completion of PSYC 101.)

PSYC 111 **Introduction To Child Psychology**
(formerly PSYCH 11) **3.0 Units**
A study of the physical, intellectual, emotional, and social development of the child extending from the prenatal period through adolescence. Three lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite)

PSYC 112 **Module In Adult Psychology**
(formerly PSYCH 12) **1.0 Unit**
Development of the individual from young adulthood through the end of life. Development is examined from physical, cognitive and psychosocial perspectives. Topics covered include interaction of these three areas of development in each phase of adulthood including death, dying, and bereavement. This course is designed for nursing students who require adult development study in addition to child and adolescent study done in Child Psychology. Six lecture hours per week for three weeks. CSU. (No prerequisite)

PSYC 116 **Adolescent Psychology** **3.0 Units**
(formerly PSYCH 16)
A study of physical, psychological, and social development during adolescence. Three lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite)

PSYC 121 **Human Intimacy** **3.0 Units**
(formerly PSYCH 21)
Review of the current knowledge concerning human intimacy from a variety of disciplines and specialties, integrating this knowledge within psychological, behavioral, and physiological perspectives. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite. Grade option)

PSYC 125 **Introduction To Counseling**
(formerly PSYCH 25) **3.0 Units**
An introduction to principles and practices of counseling concepts will be the primary focus. A systematic consideration of the basic skills and theories essential for effective counseling and problem solving Three lecture hours per week. CSU. (No prerequisite. PSYC 101 recommended.)

PSYC 128 **Special Topics**
(formerly PSYCH 28)
See Special Topics listing (Variable units).

PSYC 129 **Independent Study**
(formerly PSYCH 29)
See Independent Study listing (1-3 units).

PSYC 130 **Psychology Of Adulthood**
(formerly PSYCH 30) **3.0 Units**
Psychological change and development from young adulthood through old age. Topics include biological and cognitive factors, families, friendship patterns, personality, psychopathology, sexuality, work, leisure, retirement, bereavement and death. Three lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite. ENGL 101 recommended.)

PSYC 133 **Introduction To Drug/Alcohol**
(formerly PSYCH 33) **Studies** **3.0 Units**
This course will provide a historical perspective on drug/alcohol abuse, its impact on the individual, the family, the community and society. Definitions of use, abuse, and addiction will be presented as well as the disease concept of addiction. The effectiveness and economics of various models of treatment and rehabilitation will be explored. Three lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite)

PSYC 138 **Cooperative Education**
(formerly PSYCH 38)
See Cooperative Education listing (1-8 units). CSU

PSYC 139 **Dysfunctional Family-Practicum**
(formerly PSYCH 39) **1.0 Unit**
A follow-up practicum to the Psychology 8 course. The practicum elaborates on the theory learned in the lecture course by allowing students opportunities to role-play, practicing helping skills, and develop strategies for coping with the phases of recovery and wellness. Six laboratory hours per week for nine weeks. (No prerequisite)

PSYC 143 **Psychology of Disabilities**
(formerly PSYCH 43) **3.0 Units**
The study of the psychological, psychosocial, and biosocial aspects of human disabilities. Emphasis will be given to promoting understanding and awareness of disabled people, their special needs, and the services available for them. Three lecture hours per week. CSU (No prerequisite)

PSYC 204 **Social Psychology** **3.0 Units**
(formerly PSYCH 4)
The focus of this course is the relationship between the individual and society including such topics as social identity, conformity, obedience and deviance, attitudes and attitude change, attribution theory, persuasion, prejudice and stereotyping, aggression and prosocial behavior, interpersonal relationships, group dynamics, and conflict and conflict resolution. Three lecture hours per week. CSU, UC. (Prerequisite: PSYC 101)

PSYC 213 **Abnormal Psychology** **3.0 Units**
(formerly PSYCH 13)
Descriptions, causes, and treatment of abnormal behavior. Emphasis is on an integrated analysis of the extremes of human behavior from a biopsychosocial viewpoint. Three lecture hours per week. CSU, UC. (Prerequisite: PSYC 101.)

RELIGIOUS STUDIES

RLST 101 **Introduction to Religious**
(formerly REL STS 1) **Studies** **3.0 Units**
This course is an academic introduction to the primary forms of religious experience, language, symbol, myth, ritual, and community. Material drawn from all religions is interpreted by means of historical, social, scientific, and philosophical methods. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite. ENGL 101 is recommended.)

RLST 105 **Introduction to the**
(formerly REL STS 5A) **Old Testament** **3.0 Units**
Introduction to the Old Testament is a survey course for college students who have had little or no previous exposure to the academic study of the Old Testament. The course focuses on the original historical context surrounding the biblical texts and the literary history of the books in the Old Testament canon. Contemporary literary and historical methodologies used in the academic study of the Old Testament are introduced, applied, and evaluated. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite. ENGL 101 recommended)

RLST 106 **Introduction to the New**
(formerly REL STS 5B) **Testament** **3.0 Units**
Survey of the history and literary activity surrounding early Christianity. The course will provide an analysis of the New Testament books from literary, historical, and sociological perspectives. Some comparisons will be made with noncanonical writings of the period. CSU, UC. Offered Spring. (No prerequisite. ENGL 101 recommended)

RLST 110 **World Religions** **3.0 Units**
(formerly REL STS 10)
Introductory academic study of the history, beliefs, and practices of the world's major spiritual traditions: ancient Greek, Roman, Egyptian, Mesopotamian, and Persian religion; tribal religions, Hinduism, Buddhism, Confucianism, Taoism, Shinto, Judaism, Christianity, Islam, Sikhism, and Jainism. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite. ENGL 101 recommended)

RLST 115 **Religion In America** **3.0 Units**
(formerly REL STS 15)
Historical study of religion in America, including both its diversity and unifying factors. Major topics include Native American religion, Judaism, Roman Catholicism, Protestantism Christianity, African-American religion, American sects, metaphysical and occult religions, Asian religions, and religious dimension of public life, politics, and popular culture. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite. Eligibility for ENGL 101 recommended)

RLST 207 **Introduction to Critical Thinking**
3.0 Units
Study and practice in critical thinking and advanced English composition, including the analysis, evaluation, and formulation of arguments; the critical study of texts; and the composition of critical essays. Application of critical thinking and writing skills to topics in the areas of values and religion. See cross listing for PHIL 207. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: ENGL 101 with a grade of "C" or better.)

RLST 128 **Special Topics**
(formerly REL STS 28)
See Special Topics listing (Variable units). CSU

RLST 129 **Independent Study**
(formerly REL STS 29)
See Independent Study listing (1-3 units). CSU

RESPIRATORY THERAPY

RSPT 138 **Cooperative Education**
(formerly RSP THY 38)
See Cooperative Education listing (1-8 units). CSU

RSPT 149 **Independent Study**
(formerly RSP THY 49)
See Independent Study listing (1-3 units).

RSPT 230 **Introduction to Respiratory**
(formerly RSP THY 30) **Therapy** **3.0 Units**
Introduces the student to respiratory therapy as a health science profession, including history, professional requirements, responsibilities, professional organizations, and credentialing of the respiratory care practitioner. Provides basic anatomy and physiology, physics and math, and basic cardio-pulmonary pathology in order to give the student a foundation of theory and application. Nine lecture hours per week for six weeks. CSU. Offered Summer. (Prerequisite: MATH 50, CHEM 100, BIOL 100 or 107 and formal admission to the Respiratory Therapy Program)

RSPT 231 **Orientation to the Basic**
(formerly RSP THY 31) **Fundamentals of Respiratory**
Therapy **10.0 Units**
This course continues with a more advanced discussion of medical terminology, anatomy, physiology and cardiopulmonary pathology as it relates to the clinical applications of medial gas therapy, humidity and aerosol therapy, therapeutic and diagnostic modalities, and infection control. Students will be provided with an extensive orientation to the hospital environment and the administration of basic respiratory therapy to patients. Four lecture, eighteen laboratory hours per week. CSU. Offered Fall. (Prerequisite: RSPT 230 with a grade of "C" or better.)

RSPT 232 **Patient Assessment**
(formerly RSP THY 32) **and Clinical Application of**
Respiratory Therapy **10.0 Units**
This course is a more in-depth study of the theory and application of respiratory therapy. Its content includes airway management, pulmonary assessment, advanced cardiopulmonary physiology and the pharmacology associated with pulmonary patients. The student will spend 16 hours a week in the hospital administrating respiratory modalities to patients. Four lecture, three laboratory, and sixteen clinical hours per week. CSU. Offered Spring. (Prerequisite: RSPT 231 with a grade of "C" or better)

RSPT 233 **Intensive Respiratory Care**
(formerly RSP THY 33) **and Advanced Pulmonary**
Physiology **13.0 Units**
A more advanced study of the theory and application of respiratory care. The content will include: mechanical life support, respiratory physiology, equipment utilized in the critical care unit, microbiology, arterial puncture and analysis, endo-tracheal intubation, and principles of advanced cardiac life support. Four lecture, three laboratory, and 24 clinical hours per week. CSU. Offered Fall. (Prerequisite: RSPT 239, BIOL 211, BIOL 231, with a grade of "C" or better.)

RSPT 234 **Neonatal and Pediatric**
(formerly RSP THY 34) **Respiratory Care and Related Pathophysiology** **13.0 Units**

This course is a more advanced study of the theory and application of neonatal/pediatric respiratory care. The content will include: mechanical life support, respiratory pathophysiology, equipment utilized in the NICU/PICU, microbiology, umbilical line, capillary blood samples and analysis, endotracheal intubation, and principles of PALS and NRP. Includes 24 hours of weekly clinical practice under supervision, and three hours of weekly laboratory. Four lecture hours per week. CSU. Offered Spring. (Prerequisite: RSPT 233 and BIOL 221 with a grade of "C" or better)

RSPT 239 **Introduction To Continuous**
(formerly RSP THY 39) **Mechanical Ventilatory Support** **2.0 Unit**

This course introduces the principles of mechanical ventilation, allows hands-on experience with current ventilators, and reinforces therapeutic care. Three lecture, nine laboratory hours per week for six weeks. Offered Summer. (Prerequisite: Completion of RSPT 232 with a "C" or better)

RSPT 241 **Basic Principles of**
(formerly RSP THY 41) **Respiratory Therapy** **5.0 Units**

A self-paced equivalent of RSPT 231 for students meeting the advanced placement criteria. Successful completion requires demonstration of mastery of the classroom, laboratory, and clinical objectives equivalent to RSPT 231. Ten laboratory hours per week. CSU. Offered Fall. (Prerequisite: Graduation from a one-year, CoARC accredited program; active CRT/RCP credential; and 1000+ hours of recent clinical experience.)

RSPT 242 **Patient Assessment and Clinical**
(formerly RSP THY 42) **Application of Respiratory Care** **5.0 Units**

A self-paced equivalent of RSPT 232 for students meeting the advanced standing criteria. Successful completion requires demonstration of mastery for the classroom, laboratory and clinical objectives equivalent to RSPT 232. Ten laboratory hours per week. CSU. Offered Spring. (Prerequisite: Graduation from a one-year, CoARC accredited program; active CRT/RCP credential; and 1000+ hours of recent clinical experience.)

RSPT 243 **Clinical Simulation** **1.0 Unit**
(formerly RSP THY 43)

This course will prepare individuals for the NBRC's WRRT and Clin Sim examinations. Those already certified (CRT) and designated registry eligible by NBRC will be able to review, evaluate, and improve their clinical assessment and decision-making skills and test taking skills. One lecture hour per week. Offered Spring. (Prerequisite: Satisfactory completion of RSPT 233 with a grade of "C" or better OR RCP/CRT credentials with "registry eligibility" as designated by the NBRC/RCB.)

RESTAURANT MANAGEMENT

RMGT 1 **Foodservice Training: Server**
(formerly RES MGT 101) **4.5 Units**

This course will provide the student the opportunity to meet the primary role of the server in a foodservice establishment--to meet the customer's dining needs while maintaining the systems of the restaurant to ensure continued high quality service to all customers and maximum profitability for the operation. These responsibilities are carried out through five functions which are implemented through a number of tasks. This course will not apply to the Associate Degree. Four lecture, twenty-six laboratory hours per week for six weeks. (No prerequisite. Credit/No Credit) This course may be taken three times.

RMGT 2 **Foodservice Training: Prep/**
(formerly RES MGT 102) **Line Cook** **4.5 Units**

This course will provide the student with the basic and essential training as a prep/line cook. This training includes understanding culinary terminology, proper use of kitchen equipment and hand tools, as well as practical experience. This course will not apply to the Associate Degree. Four lecture, twenty-six laboratory hours per week for six weeks. (No prerequisite. Credit/No Credit) This course may be taken three times.

RMGT 3 **Foodservice Training: Host/ess**
(formerly RES MGT 103) **4.5 Units**

This course will provide the student the opportunity to develop the skills for a host/ess position. This includes the primary role to welcome the customer and begin the service experience in a positive way, while maintaining the systems of the restaurant to ensure continued high quality service to all customers and maximum profitability for the operation. This course will not apply to the Associate Degree. Four lecture, twenty-six laboratory hours per week for six weeks. (No prerequisite. Credit/No Credit) This course may be taken three times.

RMGT 4 **Foodservice Training: Busser**
(formerly RES MGT 104) **4.5 Units**

This course will provide the student with the basic and essential training as a busser to ensure a clean and comfortable dining environment while maintaining the systems of the restaurant to ensure high quality service to all customers and maximum profitability for the operation. This course will not apply to the Associate Degree. Four lecture, twenty-six hours per week for six weeks. (No prerequisite. Credit/No Credit) This course may be taken three times.

RMGT 5 **Foodservice Training: Cashier**
(formerly RES MGT 105) **4.5 Units**

This course will provide the student with the basic and essential training as a cashier in a foodservice establishment to meet the customer's dining needs, while maintaining the systems of the restaurant to ensure continued high quality service to all customers and maximum profitability for the operation. This course will not apply to the Associate Degree. Four lecture, twenty-six laboratory hours per week for six weeks. (No prerequisite. Credit/No Credit) This course may be taken three times.

RMGT 6 **Foodservice Training: Dishwasher**
(formerly RES MGT 106) **4.5 Units**
This course will provide the student with the basic and essential training as a dishwasher to secure clean and sanitary equipment used in the foodservice establishment while maintaining the systems of the restaurant to ensure high quality service and maximum profitability for the operation This course will not apply to the Associate Degree. Four lecture, twenty-six laboratory hours per week for six weeks. (No prerequisite. Credit/No Credit) This course may be taken three times.

RMGT 7 **Bakery and Pastry Training**
(formerly RES MGT 107) **4.5 Units**
This course will provide the student the opportunity to achieve maximum results in the development of baking skill and knowledge. The student will learn to produce breads of many types as well as a wide variety of desserts and pastries. This course will not apply to the Associate Degree. Four lecture, twenty-six laboratory hours per week for six weeks. (No prerequisite. Credit/No Credit) This course may be taken four times.

RMGT 8 **Catering Training** **4.5 Units**
(formerly RES MGT 108)
This course will provide the student the opportunity to understand the concepts involved in catering for banquets. This will include the objective of meeting the client's needs while maintaining the systems of the establishment to ensure continued high quality service and maximum profitability for the operation. This course will not apply to the Associate Degree. Four lecture, twenty-six laboratory hours per week for six weeks. (No prerequisite. Credit/No Credit) This course may be taken four times.

RMGT 9 **Concepts in Sanitation** **0.5 Units**
The basic principles of sanitation and safety are explored for food service employees relative to the safe operation of equipment, as well as the preparation and service of food within any public and private food operation. This course is designed to meet current professional organization certification requirements and prepares the student for the National Food Certification examination (ServSafe). This course will not apply to the Associate Degree. One and one-half lecture hours per week for six weeks. (No prerequisite. Credit/No Credit) This course may be taken four times.

RMGT 75 **Creative Cuisine Series:**
(formerly RES MGT 75) **Understanding Fish and Shellfish** **2.0 Units**
This course will provide the student with knowledge, training, and skills involved in the principles of structure, handling and cooking fish and seafood. Includes identifying, cutting, filleting, and preparing various fish and seafood species. Two lecture hours per week and a total of eight laboratory hours. Offered Summer. (No prerequisite) This course may be taken two times.

RMGT 76 **Creative Cuisine Series:**
(formerly RES MGT 76) **Understanding Meats and Poultry** **2.0 Units**
This course will provide the student with knowledge, training, and skills involved in the principles of structure, handling, and cooking meats and poultry. Includes identifying, cutting, filleting, and preparing various meats and poultry. Two lecture hours per week and one eight hour laboratory session. Offered Summer. (No prerequisite) This course may be taken three times.

RMGT 80 **Off-Premise Catering** **2.0 Units**
(formerly RES MGT 80)
This is a comprehensive course covering the fundamentals of catering, sales and marketing as they pertain to catering, and production of operations. Subjects covered include corporate catering, styles of service, finance, completion of necessary forms and paper work related to catering. Two lecture hours per week and a total of twelve laboratory hours. Offered Summer. (No prerequisite)

RMGT 81 **Food Service Training-**
(formerly RES MGT 81) **Prep/Line Cook** **3.0 Units**
This course will provide the student with basic and essential training as a prep/line cook. This training includes understanding culinary terminology, proper use of kitchen equipment and hand tools and practical training experience. Four lecture, six laboratory hours per week for nine weeks. (No prerequisite.)

RMGT 82 **Food Service Training-**
(formerly RES MGT 82) **Waiter/Waitress** **3.0 Units**
This course will provide the student with basic and essential training as a waiter/waitress. Students will obtain an understanding of the inter-personal communication skills required of waiters/waitresses. Practical experience in serving food is incorporated into the training. Four lecture, six laboratory hours per week for nine weeks. (No prerequisite.)

RMGT 83 **Kitchen/Dining Room Training**
(formerly RES MGT 83) **6.0 Units**
Students will learn the kitchen and dining room positions in a food service operation. Actual hands-on experience is gained and re-enforced by lecture and demonstration on proper cooking and serving techniques and procedures. Students will be required to be "team" leaders and work in groups with beginning students. Two lecture, twelve laboratory hours per week. (Prerequisites: RMGT 81, 82, 86, 87.)

RMGT 84 **Kitchen/Dining Room**
(formerly RES MGT 84) **Management** **6.0 Units**
Students will learn to manage kitchen and dining room functions in a food service operation. While planning, organizing, coordinating, directing and controlling a food service operation, students will supervise teams as part of the training. Two lecture, twelve laboratory hours per week. (Prerequisite: RMGT 83.)

RMGT 85 **Advanced Restaurant**
(formerly RES MGT 85) **Management** **6.0 Units**
This course provides the student an opportunity to integrate the concepts of Restaurant Management 83 and 84 by participating in decision-making in the role of restaurant manager. Advanced restaurant management students will also perform an apprenticeship in food service operation, practicing all aspects of restaurant management. Students will effect changes in the operation if needed. Two lecture, twelve laboratory hours. (Prerequisite: RMGT 84.)

RMGT 86 **Applied Food Service Sanitation**
(formerly RES MGT 86) **3.0 Units**
This course provides the student with the safety and sanitation principles of food service. Three areas of potential risk--food safety, responsible alcohol service and employee and customer safety are discussed with a focus on a manager's role in assessing risks, establishing policies and training employees. Three lecture hours per week. (No prerequisite.)

RMGT 87 **Principles of Professional Cooking**
(formerly RES MGT 87) **3.0 Units**
This course will provide the student with an understanding of the principles of professional cooking. Basic cooking principles and techniques will be taught as a foundation of knowledge relating to food service/restaurant management courses. Three lecture hours per week. (No prerequisite.)

RMGT 88 **Management By Menu** **3.0 Units**
(formerly RES MGT 88)
This course will provide the student with a basic understanding of the menu as a valuable tool in management. The history of menus, planning, controlling, pricing and cost factors are taught. Menu mechanics, menu analysis, nutrition, service and evaluation are also explored. Three lecture hours per week. (No prerequisite.)

RMGT 89 **Purchasing For Food Service**
(formerly RES MGT 89) **Managers** **3.0 Units**
This course will provide the student with basic knowledge of purchasing principles and procedures in the food service industry. Purchasing activity and product information from a managerial perspective are discussed. Three lecture hours per week. (No prerequisite.)

RMGT 90 **Effective Food Service Marketing**
(formerly RES MGT 90) **3.0 Units**
This course will provide the student with an introduction to marketing, planning information and research. The student will acquire an understanding of hospitality, consumer advertising and promotion, and hospitality group sales. Three lecture hours per week. (No prerequisite.)

RMGT 91 **Controlling Costs in Food Service**
(formerly RES MGT 91) **Management** **3.0 Units**
This course will provide the student the basics of cost controls in the food service industry. The course begins with an overview of food, beverage and labor costs, and then looks in detail at food costs; operations, and sales are covered next. The course concludes with a discussion of labor cost controls. Three lecture hours per week. (No prerequisite.)

RMGT 92 **Legal Aspects of Food Service**
(formerly RES MGT 92) **Management** **3.0 Units**
This course will provide the student a broad overview of the legal components of food service management. Basic components of hospitality law, regulations and civil rights, food service liability, safety, security, contracts and business law are discussed. Three lecture hours per week. (No prerequisite.)

RMGT 93 **Supervision in the Hospitality**
(formerly RES MGT 93) **Industry** **3.0 Units**
This course will provide the student with a basic knowledge of supervision in the hospitality industry. The supervisor as a manager and leader will be explored. All facets of supervision as it applies to restaurant management will be discussed including communication, recruiting, training, evaluating and disciplining. Three lecture hours per week. (No prerequisite.)

RMGT 120 **Introduction to Nutrition**
(formerly RES MGT 20) **3.0 Units**
This course focuses on the fundamentals of carbohydrates, proteins, fats, vitamins, minerals, and their roles in human metabolism. It is specifically designed for individuals directing nutrition programs, hospitals, and care centers or those acquiring degrees in allied health, child development, or restaurant management, as well as interested homemakers. Selected nutrition topics include personalized and vegetarian nutrition, menu planning, marketing options and chemistry of nutrition. Three lecture hours per week. CSU. (No prerequisite). See cross listing for CHEM 120. This course may be taken two times.

RMGT 138 **Cooperative Education**
(formerly RES MGT 38)
See Cooperative Education listing (1-8 units). CSU

SOCIOLOGY

SOC 101 **Introduction To Sociology**
(formerly SOC 1) **(CAN SOC 2)** **3.0 Units**
A survey of the various characteristics of social life, the process of social interaction and the tools of sociological investigation. Emphasis on culture, socialization, and basic institutions. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite)

SOC 102 **American Social Problems**
(formerly SOC 2) **(CAN SOC 4)** **3.0 Units**
Identification and analysis of contemporary social problems in the United States. An attempt to establish criteria by which the educated layman can judge the probable effectiveness of various schemes for social betterment. Three lecture hours per week. CSU, UC. (No prerequisite)

SOC 103 **Marriage and Family Life**
(formerly SOC 3) **(CAN H EC 12)** **3.0 Units**
Courtship, choosing a mate, the engagement, factors in marital adjustment, parenthood, and related topics. Three lecture hours per week. CSU. (No prerequisite)

SOC 107 **The Ethnic Experience In**
(formerly SOC 7) **American Society** **3.0 Units**
A one-semester survey of the various ethnic minorities in American society and their contributions and special experiences as minorities. Emphasis on those current issues which have the most impact on American society. Three lecture hours per week. CSU, UC. Offered Spring. (No prerequisite)

SOC 128 **Special Topics**
(formerly SOC 28)
See Special Topics listing (Variable units). CSU

SOC 129 **Independent Study**
(formerly SOC 29)
See Independent Study listing (1-3 units). CSU

SOC 138 **Cooperative Education**
(formerly SOC 38)
See Cooperative Education listing (1-8 units). CSU

SPANISH

SPAN 51 **Conversational Spanish II**
3.0 Units
This is the second of two courses covering the essentials of Spanish conversation. Intensive oral and aural practice in the language with the objectives of developing fluency and increasing vocabulary through the study of common cross-cultural situations. Introduction to more complex Spanish structures and grammar with emphasis on the spoken language. Three lecture hours per week. (Prerequisite: SPAN 125. Grade Option.) This course may be taken three times.

SPAN 101 **Elementary Spanish** **5.0 Units**
(formerly SPAN 1)
This course provides an introduction to the Spanish language and the culture of its speakers. Fundamentals of pronunciation, structure and Hispanic culture are studied to develop the ability to use and understand basic spoken and written Spanish. Special emphasis is given to development of oral and aural skills by use of the language lab. Five lecture, one laboratory hour per week. CSU, UC. (No prerequisite)

SPAN 101A **Fundamentals of Spanish IA**
(formerly SPAN 1A) **3.0 Units**
This course provides an introduction to the Spanish language and the culture of its speakers. Fundamentals of pronunciation, structure and Hispanic culture are studied to develop the ability to use and understand basic spoken and written Spanish. Special emphasis is given to development of oral and aural skills by use of the language lab. Three lecture, one laboratory hour per week. CSU (No prerequisite)

SPAN 101B **Fundamentals of Spanish IB**
(formerly SPAN 1B) **3.0 Units**
This course provides an introduction to the Spanish language and the culture of its speakers. Fundamentals of pronunciation, structure and Hispanic culture are studied to develop the ability to use and understand basic spoken and written Spanish. Special emphasis is given to development of oral and aural skills by use of the language lab. Three lecture, one laboratory hour per week. CSU (Prerequisite: Completion of SPAN 101A with a "C" or better.)

SPAN 102 **Elementary Spanish** **5.0 Units**
(formerly SPAN 2)
This course is a continuation of SPAN 101. Further study of fundamentals of pronunciation, structure and Hispanic culture to develop the ability to use and understand basic spoken and written Spanish. Use of language laboratory is required in order to continue the development of oral and aural skills. Five lecture, one laboratory hour per week. CSU, UC. (Prerequisite: Completion of SPAN 101 or SPAN 101A and SPAN 101B.)

SPAN 103 **Intermediate Spanish**
(formerly SPAN 3) **(CAN SPAN 8)** **3.0 Units**
A comprehensive review of the basic grammatical structure of Spanish, vocabulary building, development of conversation and composition skills, reading of literary and social interest. Three lecture hours per week. CSU, UC. (Prerequisite: Completion of SPAN 102 or two years of high school Spanish)

SPAN 104 **Intermediate Spanish**
(formerly SPAN 4) **(CAN SPAN 10)** **3.0 Units**
A continuation of a comprehensive review of the basic grammatical structure of Spanish, vocabulary building, development of conversation and composition skills, reading of literary and social interest. Three lecture hours per week. CSU, UC. (Prerequisite: Completion of SPAN 103 or three years of high school Spanish)

SPAN 110 **Spanish for Spanish Speakers**
(formerly SPAN 10) **3.0 Units**
Designed to fulfill the particular needs of bilingual students with special emphasis on the grammar of the language and the development of writing, reading and speaking skills. Conducted in Spanish. Three lecture hours per week. CSU (No prerequisite. Recommended: Ability to speak Spanish.)

SPAN 125 **Conversational Spanish I** **3.0 Units**
(formerly SPAN 25)
An introduction to the Spanish language using situations the student will commonly encounter. Introduction to simple Spanish structures and grammar with emphasis on the spoken language. Three lecture hours per week. CSU. (No prerequisite) This course may be taken four times.

SPAN 128 **Special Topics**
(formerly SPAN 28)
See Special Topics listing (Variable units).

SPAN 129 **Independent Study**
(formerly SPAN 29)
See Independent Study listing (1-3 units).

SPAN 130 **Conversational Spanish for Healthcare Professionals I**
(formerly SPAN 30) **3.0 Units**

This course is directed towards the needs of nursing and healthcare students, as well as other medical and hospital personnel, who must communicate quickly and effectively with Spanish-speaking patients. Conducted in Spanish and English. Three lecture hours per week. CSU. (No prerequisite)

SPAN 131 **Conversational Spanish for Healthcare Professionals II**
3.0 Units

This course is a continuation of SPAN 130. It provides intermediate conversational skills for nursing and healthcare students as well as other medical and hospital personnel who must communicate quickly and effectively with Spanish-speaking patients. Conducted in Spanish and English. Three lecture hours per week. (Prerequisite: SPAN 130 with a grade of "C" or higher or consent of instructor. Grade Option.) This course may be taken three times.

SPAN 135 **Spanish for Business** **3.0 Units**
(formerly SPAN 35)

This course is designed to give students a foundation in Spanish business terminology and prepare them with the knowledge necessary to function in business and professional settings in Spanish speaking countries and where Spanish is used in the U.S. Emphasis will be placed on acquiring basic communication skills and specialized vocabulary for topics related to business and finance. Course is conducted mainly in Spanish. Three lecture hours per week. CSU. (No prerequisite)

SPECIAL TOPICS

SPECIAL TOPICS 128-148-98 **0.5-9.0 Units**
(formerly SPECIAL TOPICS 28-48-98)

These courses are designed to permit investigation in depth of topics not covered by regular catalog offerings. Course content, hours, and unit credit to be determined by the instructor in relation to community/student interest and/or available staff. May be offered as a seminar, lecture, or laboratory class. Individual course descriptions approved by the Curriculum Committee are on file in Office of Instruction. Special Topics 28 and 48 transfer to CSU, UC. (UC maximum credit allowed: 3.3 semester units per term, 6 units total, in any or all appropriate subject areas combined. Granting of credit by a UC campus contingent on evaluation of course outline.) (Prerequisites for Special Topics courses will be in keeping with the California Administrative Code, Title V regulations on open classes, and any prerequisites will be based on terms of performance or specific knowledge necessary to successful performance in the class).

SPEECH COMMUNICATION

SPCH 105 **Intercultural Communication**
(formerly SPEECH 5) **3.0 Units**

This class is an introduction to intercultural communication. It examines variations and commonalities in communication patterns between international cultures and among subgroups within the United States. Differences in communication rules, norms, roles, and their underlying cultural assumptions are studied along with ways of enhancing intercultural encounters. It includes both theory and activity based instruction. Three lecture hours per week. CSU, UC. (No prerequisite)

SPCH 106 **Human Communication**
(formerly SPEECH 6) **(CAN SPCH 8)**
3.0 Units

A course which examines human communication theory and principles across a variety of contexts. The course emphasizes analysis of communication variables as well as skill development and application. Three lecture hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite)

SPCH 107 **Family Communication** **3.0 Units**
(formerly SPEECH 7)

An introduction to human communication in the setting of the family. The goal is to help the student understand how, through communication, people develop, maintain, enhance, or destroy family relationships. Students will study variables and the process of communication as they affect the interaction of their families and develop insight that will make it possible to apply this knowledge. Three lecture hours per week. CSU. Offered Fall, Spring, Summer. (No prerequisite)

SPCH 108 **Group Discussion**
(formerly SPEECH 8) **(CAN SPCH 10)** **3.0 Units**

Practical application of the processes involved in group discussion with an emphasis on problem solving and decision making. Attention to structured and unstructured situations. Principles applicable to groups found in schools, businesses, professions, and the family. Development of interpersonal skills for thoughtful participation in a democratic society. Three lecture hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring. (No prerequisite)

SPCH 109 **Public Speaking**
(formerly SPEECH 9) **(CAN SPCH 4)** **3.0 Units**

The preparation, organization, and delivery of practical speeches that result from analysis of audiences and adaptation to a number of special occasions. Furthers the student's ability to communicate ideas orally to varied audiences. Designed for students of education, the ministry, law, salesmanship, and other highly vocal professions. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite. Grade option)

SPCH 121 **Fingerspelling/Numbers I**
(formerly SPEECH 21) **1.0 Unit**
An introductory course that teaches the student the appropriate application of Fingerspelling and its production. The course will include strategies for improvement. Also included will be the articulation of loan signs and one to three digit numbers. Emphasis on both receptive and expressive fluency. One lecture hour per week. CSU. (No prerequisite)

SPCH 122 **American Sign Language I**
(formerly SPEECH 22) **4.0 Units**
An introduction to American Sign Language as it is used within deaf community. Students will study the basic structure and development of the language as well as Deaf Culture. Emphasis is placed on both receptive and expressive skills. Four lecture hours per week. CSU, UC (No prerequisite) This course may be taken two times.

SPCH 123 **American Sign Language II**
(formerly SPEECH 23) **4.0 Units**
A continuation in the study of American Sign Language as it is used within the Deaf Culture. Instruction is provided in the basic structure of the language. Emphasis is placed on both receptive and expressive skills. Four lecture hours per week. CSU, UC (Prerequisite: SPCH 122) This course may be taken two times.

SPCH 124 **American Sign Language III**
(formerly SPEECH 24) **4.0 Units**
Continuation of development of skill in American Sign Language with emphasis on an intermediate level of comprehension and expression. Students will progress in their study of the structure and grammar of American Sign Language as well as Deaf Culture. Emphasis is placed on both receptive and expressive skills. Four lecture hours per week. CSU, UC (Prerequisite: SPCH 123) This course may be taken two times.

SPCH 125 **American Sign Language IV**
(formerly SPEECH 25) **4.0 Units**
A continuation in the study of American Sign Language and the Deaf Community including its history and culture. Emphasis will be on receptive and expressive skills as they relate to narrating life events. Students will learn techniques such as role-shifting, use of space and classifiers in addition to appropriate non-manual behaviors. This course will prepare the student for entrance into an interpreter training program. Four lecture hours per week. CSU. (Prerequisites: SPCH 124) This course may be taken two times.

SPCH 128 **Special Topics**
(formerly SPEECH 28)
See Special Topics listing (Variable units). CSU

SPCH 129 **Independent Study**
(formerly SPEECH 29)
See Independent Study listing (1-3 units). CSU

THEATRE ARTS

TA 101 **Introduction to Theatre**
(formerly TA 1) **(CAN DRAM 18)** **3.0 Units**
An introductory course of the history, the performers, the purpose, and the perspective of theatre. Students will be introduced to the basic forms of theatre and disciplines involved in producing a play. Emphasis is on defining and experiencing the role of theatre in society. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

TA 102 **History of the Theatre** **3.0 Units**
(formerly TA 2)
A survey course designed to introduce the student to a history of the world's theatrical experiences from primitive times to the present. An examination of the physical theatre and methods of staging drama from the days of the caveman to theatre of the avant-garde. Three lecture hours per week. CSU. Fall only. (No prerequisite)

TA 104 **Oral Interpretation of Literature**
(formerly TA 4) **3.0 Units**
Understanding and practicing the skills of reading literature aloud, stressing the acquisition of vocal control skills for emphatic reading and the communication of the literary interpretation to an audience. Selections from the major forms of literature: prose, poetry, and drama. Improvement in vocal control skills and a wider appreciation of literature. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite)

TA 106 **Beginning Acting**
(formerly TA 6) **(CAN DRAM 8)** **3.0 Units**
This course is designed to exercise the separate parts of the composite art of acting which include thought, emotion, and specific movement and vocal techniques. Emphasis is placed on pantomime and exercises culminating in scene work. The ultimate goal is to develop a firm foundation in basic acting techniques. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

TA 107 **Intermediate Acting** **3.0 Units**
(formerly TA 7)
This course provides the student an opportunity to enhance acting skills, and to develop and intensify dramatic ability by advancing the understanding of skills presented in Beginning Acting. The student will be introduced to the process of analyzing character through lecture, demonstration, exercises, and the rehearsal and presentation of scenes from published texts. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite.)

TA 108 **Rehearsal and Performance Studio**
(formerly TA 8) **for Young Audiences 1.0 Unit**
This course will provide study and laboratory explanation in all aspects of play production for children's audiences wherein the actor develops his/her acting capabilities, skills, and discipline. The audition, preparation, and presentational phases of the acting process will be explored under the supervision and guidance of a faculty director. Productions will be presented for public performance. Enrollment is for the duration of the preparation and presentation phases of production. One lecture, one and one-half laboratory hours per week. CSU. (No prerequisite.) This course may be taken four times.

TA 109 **Rehearsal and Performance Studio**
(formerly TA 9) **2.0 Units**
This course will provide study and laboratory exploration in all aspects of play production involving the actor in order to develop his/her acting capabilities, skills, and discipline. The audition, preparation, and presentational phases of the acting process will be explored under the supervision and guidance of a faculty director. Productions will be presented for public performance. Enrollment is for the duration of the preparation and presentation phases of production. May be repeated four times for a maximum of twelve units. One hour lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: Qualify for cast at open auditions. TA 106 recommended) This course may be taken four times.

TA 110 **Principles of Design for Theatre**
(formerly TA 10) **3.0 Units**
An introductory course in design as applied to the theatre in the areas of lighting, costuming, makeup, set design, properties, and graphic art. Students will apply concepts of texture, line, space, color and perspective to the various design aspects in theatre through specific 2-D and 3-D exercises. Two lecture, three laboratory hours per week. CSU, UC. (No prerequisite.)

TA 111 **Technical Stage Production**
(formerly TA 11) **2.0 Units**
This course is designed as an introduction to the tasks and responsibilities of stage technicians and their contribution to the total aesthetic effect of a dramatic production. Stage managing, construction techniques, stage equipment use, and function of technical stage personnel are introduced to develop the student's design capabilities, skills, and discipline in stage production. Students will serve as technical stage crew members in Theatre Arts Department productions. One hour lecture, three hours laboratory per week. CSU, UC. Offered Fall, Spring. (No prerequisite.) This course may be taken three times.

TA 113 **Stage Make-up** **2.0 Units**
(formerly TA 13)
A course designed to introduce the student to the basic techniques and materials of stage make-up. The student will demonstrate understanding through actual make-up application in both the classroom and as a member of the make-up crew for a specific departmental play production. One lecture, three laboratory hours per week. CSU. (No prerequisite) This course may be taken two times.

TA 115 **Stagecraft** **2.0-4.0 Units**
(formerly TA 15)
An introductory course on the materials, tools, and procedures of all technical phases of scene production including construction, painting, rigging, placement and manipulation of stage scenery, the organization and management of stage activity, and stagecraft terminology. Students are introduced to the fundamentals of set design, construction, painting, and finishing. Course is designed for the beginner and may be repeated four times for a maximum of 16 units. One half hour lecture, one and one half hours laboratory per week per unit. CSU, UC. Offered Fall, Spring. This course may be taken four times.

TA 116 **Authors of the Theatre 3.0 Units**
(formerly TA 16)
A survey of playwrights from the Greeks to the present. The selected plays are read, discussed, and analyzed. It is both AA and BA applicable. Three lecture hours per week. CSU, UC. Offered Spring. See cross listing for ENGL 116. This course may be taken two times.

TA 117 **Technical Theatre I:**
(formerly TA 17) **Lighting and Sound 3.0 Units**
A basic course in theatre lighting and sound systems including electricity, instruments and lamps, light plots, sound recording, microphones, speakers, etc. Emphasis is on hands-on control and adjustment of equipment. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall. (No prerequisite. TA 115 is recommended to familiarize students with the theatre and its equipment)

TA 120 **Costuming for the Theatre**
(formerly TA 20) **2.0 Units**
A basic course in the skills of costuming for the stage and the art of costume design. Repetitions of the course will introduce creation of specialty items, stylistic interpretations, crew management and organization responsibilities. One hour lecture, three hours laboratory per week. CSU, UC (No prerequisite) This course may be taken four times.

TA 125A/B/C **Summer Theatre Workshop**
(formerly TA 25A/B/C) **2-2-2 Units**
Formerly Summer Theatre Festival
A Summer Session theatre production course of intensive nature. Students will be selected by audition and/or interview to serve as cast, technical crew, or production staff on all productions. The production will be managed in repertory with students having duties and responsibilities in all productions. Students will select two areas of concentration from the following: TA 125A (acting), TA 125B (production staff), or TA 125C technical crew). Each component (TA 125A, TA 125B, TA 125C) requires one hour lecture and ten hours laboratory for eight weeks. CSU, UC. Offered Summer. (No prerequisite.) This course may be taken three times.

TA 128 **Special Topics**
(formerly TA 28)
See Special Topics listing (Variable units). CSU

TA 129 **Independent Study**
(formerly TA 29)
See Independent Study listing (1-3 units). CSU

TA 138 Cooperative Education
(formerly TA 38)
See Cooperative Education listing (1-8 units). CSU, UC

TA 160 Beginning Tap 1.0 Unit
(formerly TA 21C)
Development of basic knowledge and skill in tap dancing, commonly used in musical productions and theater. See cross listing for PEDA 160. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

TA 161 Intermediate Tap 1.0 Unit
(formerly TA 21D)
Development of intermediate knowledge of skill in tap dancing, commonly used in musical productions and theater. See cross listing for PEDA 161. Three laboratory hours per week. CSU, UC (Prerequisite: Student may be required to audition and be approved by instructor for entrance to class. Grade option) This course may be taken four times.

TA 166 Ballet I 1.0 Unit
(formerly TA 36A)
Technique and style of beginning ballet dance. Emphasis on exploring the movement characteristics of ballet through dancing. See cross listing or PEDA 166. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

TA 167 Ballet II 1.0 Unit
(formerly TA 36B)
Technique and style of secondary level II ballet dance. Emphasis on exploring the movement characteristics of level II ballet through dancing. See cross listing or PEDA 167. Three aboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

TA 170 Jazz Dance I 1.0 Unit
(formerly TA 37A)
Technique and style of beginning jazz dance. Emphasis on exploring the movement characteristics of jazz through dancing. See cross listing or PEDA 170. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

TA 171 Jazz Dance II 1.0 Unit
(formerly TA 37B)
Technique and style of level II jazz dance. Emphasis on exploring the movement characteristics of secondary level of jazz through dancing. See cross listing or PEDA 171. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

TA 174 Modern Dance I 1.0 Unit
(formerly TA 39A)
Technique and style of beginning modern dance. Emphasis on exploring the movement characteristics of level I modern dance through dancing. See cross listing or PEDA 174. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

TA 175 Modern Dance II 1.0 Unit
(formerly TA 39B)
Technique and style of secondary level II modern dance. Emphasis on exploring the movement characteristics of secondary level II modern dance through dancing. See cross listing or PEDA 175. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

TA 266 Ballet III 1.0 Unit
(formerly TA 36C)
Technique and style of intermediate level III ballet dance. Emphasis on exploring the movement characteristics of intermediate level III ballet through dancing. See cross listing or PEDA 266. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

TA 267 Ballet IV 1.0 Unit
(formerly TA 36D)
Technique and style of advanced level IV ballet dance. Emphasis on exploring the movement characteristics of advanced level IV ballet through dancing. See cross listing or PEDA 267. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

TA 270 Jazz Dance III 1.0 Unit
(formerly TA 37C)
Technique and style of intermediate level III jazz dance. Emphasis on exploring the movement characteristics of intermediate level III jazz through dancing. See cross listing or PEDA 270. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

TA 271 Jazz Dance IV 1.0 Unit
(formerly TA 37D)
Technique and style of level IV jazz dance. Emphasis on exploring the movement characteristics of advanced level IV jazz through dancing. See cross listing or PEDA 271. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

TA 274 Modern Dance III 1.0 Unit
(formerly TA 39C)
Technique and style of intermediate level III modern dance. Emphasis on exploring the movement characteristics of intermediate level III modern dance through dancing. See cross listing or PEDA 274. Three laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

TA 275 Modern Dance IV 1.0 Unit
(formerly TA 39D)
Technique and style of advanced level IV modern dance. Emphasis on exploring the movement characteristics of advanced level IV modern dance through dancing. See cross listing or PEDA 275. Three laboratory hours per week. CSU (No prerequisite. Grade option) This course may be taken four times.

WELDING

WELD 50 Introduction to Welding 2.0 Units
Beginning course in arc and oxyacetylene welding which covers safety practices, use of equipment, and oxyacetylene cutting. Two lecture, six hours laboratory hours per week. Fall, Winter, Spring and Summer. (No prerequisite)

WELD 51 Oxyacetylene Welding, Cutting, and Brazing 3.0 Units
Develops entry-level skills for the welder in gas welding, braze welding, and cutting. Two lecture, four laboratory hours per week. Offered Fall, Spring. (No prerequisite)

WELD 52 Shielded Metal Arc Welding - Basic 3.0 Units
Develops entry-level shielded metal arc welding (SMAW) skills for the welder. Two lecture, four laboratory hours per week. Offered Fall, Spring. (No prerequisite)

WELD 53 Shielded Metal Arc Welding - Advanced 4.0 Units
Develops advanced shielded metal arc welding skills. Specifically develops skills to produce high quality large multipass fillet welds and single-v-groove welds. Two lecture, six laboratory hours per week. Offered Fall, Spring. (No prerequisite)

WELD 54 Preparation for Welder Certification 1.0 Unit
This course prepares the welder to take and pass the Los Angeles Department of Building and Safety written examination required for the L.A. City welding license. In addition, the performance requirements necessary to pass welder qualification tests under different codes are covered. Two lecture hours per week for nine weeks. Offered Spring 4th Term. (No prerequisite)

WELD 57A Gas Tungsten Arc Welding - Basic 2.0 Units
Develops entry-level gas tungsten arc welding skills; setting up and adjusting equipment, and in position welding on mild steel, stainless steel, and aluminum. Two lecture, six laboratory hours per week for nine weeks. 1st and 3rd Terms. (No prerequisite)

WELD 57B Gas Tungsten Arc Welding - Advanced 2.0 Units
Develops advanced gas tungsten arc welding skills in out-of-position welding on mild steel, stainless steel, and aluminum. Two lecture, six laboratory hours per week for nine weeks. 2nd and 4th Terms. (No prerequisite)

WELD 58A Gas Metal Arc Welding - Basic 2.0 Units
Develops entry-level skills in gas metal arc welding. Specifically develops skills on all position groove and fillet welds, set-up, and adjustment of equipment. Two lecture, six laboratory hours per week for nine weeks. lst and 3rd Terms. (No prerequisite)

WELD 58B Gas Metal Arc Welding - Advanced 2.0 Units
Develops advanced skills in gas metal arc welding. Specifically develops skills in single-v-groove butt joints in all positions and welder qualification practice. Two lecture, six laboratory hours per week for nine weeks. 2nd and 4th Terms. (No prerequisite)

WELD 59 Welding Symbols and Blueprint Reading 1.0 Units
Develops a technical understanding of engineering drawings and use of information to communicate instructions from the designer to the welder and fitter to achieve design objectives. Two lecture hours per week for nine weeks. Offered Fall 2nd Term. (No prerequisite)

WELD 60A/B/C/D Welding Laboratory 1.0-2.0 Units
A laboratory class to develop skills in oxyacetylene welding, arc welding, gas tungsten arc welding, gas metal arc welding, or pipe welding. Fifty-one hours of laboratory experience qualifies for 1 unit of credit. Offered Fall, Spring and Summer. (No prerequisite)

WELD 98 Special Topics
See Special Topics listing (Variable units).

WELD 99 Independent Study
See Independent Study listing (1-3 units).

WELD 138 Cooperative Education
(formerly WELD 38)
See Cooperative Education listing (1-8 units). CSU

X.
FACULTY AND STAFF

"Education should be directed to the full development of the human personality, to the strengthening of the human personality and to the strengthening of respect for human rights and fundamental freedoms."

-Jean Piaget
'To Understand Is To Invent'
Chapt 4, pg 87

VICTOR VALLEY COLLEGE FACULTY AND STAFF

FULL TIME ACADEMIC STAFF

Adell, Tim (1999)
Assistant Professor, English
B.A., North Park College
M.A., M.F.A., McNeese State University

Akins, John (1991)
Professor, Librarian
B.A., California State University, Fullerton
M.L.S., University of Hawaii at Manoa
M.A., California State University, Long Beach

Alcorn, William (1969)
Professor Emeritus
B.A., Park College
M.S., University of Omaha

Allan, Peter (1997)
Associate Professor, Business Administration
B.A, M.B.A., California State University, San Bernardino

Ashton-Beazie, Janet (1978)
Professor Emeritus, Librarian
B.S.Ed., M.S., University of North Dakota

Augustine-Carreira, Jacqueline (2001)
Assistant Professor, Speech
B.A., M.P.A., California State University, San Bernardino

Bachofner, William (1971)
Professor, Psychology
B.A., University of San Diego
M.A., Chapman College

Baron, Bruce (2005)
Vice President, Administrative Services
B.A., Queens College, City University of New York
M.S., The City College, City University of New York

Basha, Claudia (1988)
Professor, English/French
B.A., University of Illinois, Champaign-Urbana
M.S., Oklahoma State University

Basiri Thomas (1997)
Associate Professor, Chemistry
Ph.D., Boston College

Beach Kelley (2003)
Counselor
A.A., Victor Valley College
B.A., M.A., California State University, San Bernardino

Becker, Barbara (1993)
Professor, Business Education Technology
A.S., Victor Valley College
B.A., California State University, San Bernardino
M.B.A., University of Redlands

Begley, Robert (1992)
Professor, English
B.A., University of California, Santa Barbara
M.A., San Francisco State University

Bennett, Harry Lee (2000)
Assistant Professor, Automotive
A.S., Victor Valley College

Blanchard, Debra (1992)
Professor, Physical Education/Basketball Coach
B.A., California State University, Northridge
M.S., Arizona State University

Boutcher, Larry (1997)
Associate Professor, Respiratory Therapy
A.S., Long Beach City College
B.S., Southern Illinois University at Carbondale
M.A., University of Redlands

Bryan, T. Scott (1981)
Professor Emeritus, Geology/Astronomy
B.S., San Diego State University
M.S., University of Montana

Buckles, Duane (1985)
Professor, Restaurant Management
A.A.S., Paul Smith's College of Arts and Sciences, New York

Burg, Edward (1999)
Assistant Professor, Computer Information Systems
B.S., California State University, Fullerton
M.S., University of Phoenix

Butros, Michael (2000)
Assistant Professor, Mathematics
B.S., University of California, Irvine
M.S., Northern Arizona University

Campbell, Bryce (2003)
Instructor, English
B.A., M.A., Ph.D., Washington State University

Carlson G. Robert (2002)
Assistant Professor, Mathematics
B.S., Morningside College
M.S., Colorado School of Mines

Cass, Reiji (1990)
Professor, Computer Information Systems
B.S., Shanghai Electronic Engineering College, China
M.S., South Dakota School of Mines and Technology

Cerreto, Richard (1998)
Associate Professor, Anthropology
B.A., M.A., California State University, Fullerton

Chapman James (1967)
Professor Emeritus, Mathematics
A.B., M.A., San Jose State College

Chou, Juanita (1983)
Professor, Counseling
B.A., M.S., San Francisco State College

Cline, Diane (1979)
Professor, Nursing
B.S., San Diego State College
M.S., California State University, Los Angeles

Cole, Christine (1998)
Student Support Services Coordinator
B.S., M.A., Northern Arizona University

Comer, James (2004)
Instructor, Math

Cooper, Jeffrey (2004)
Deputy Superintendent/Executive VP, Instruction
B.A., M.A., California State University, Northridge

Contreras, Fernando (2000)
Assistant Professor, Counseling
B.A., University of California, Santa Cruz
M.A., San Jose State University

Cuna, Starlie (1998)
Assistant Professor, Nursing
M.S., Loma Linda University

Danielson, Milton (1961)
Professor Emeritus
B.A., University of California, Berkeley
B.D., Th.M., Berkeley Baptist Divinity School
Ph.D., University of Southern California

Davis, Tracy (1999)
Assistant Professor, History
B.A., M.A., University of California, Riverside

DeLong, Carol (1992)
Professor, Geography
B.A., M.A., California State University, Long Beach

Diaz, Felix (1971)
Counselor Emeritus
B.A., Los Angeles State College
M.A., Chapman College

Doan, Mary Lynn (1992)
Professor, Mathematics
B.A., California State University, San Bernardino
M.S., University of California, Riverside

Doyle, John (1990)
Professor, Allied Health/Paramedics
A.S., Victor Valley College
B.S., University of LaVerne
B.S., Excelsior College, New York

Dunsmore, Margaret (1988)
Professor, Cooperative Education
B.S., University of Oklahoma

Dupree, David (1988)
Professor, Political Science
B.S., Sterling College, Kansas
M.A., University of Kansas

Eccleston, Joanne (1972)
Professor Emeritus, Child Development
A.B., University of Southern California
M.A., Pacific Oaks College

Eklund, Laird (1989)
Professor, English as a Second Language
B.S., Georgetown University, Washington, D.C.
M.A., University of Southern California

Elgin, Frances (1980)
Librarian Emeritus
B.S., Southwest Missouri State University
M.L.S., San Jose State University

Ellis, Lisa (1999)
Assistant Professor, History
B.A., M.A., Youngstown State University

Embroden, Nord (1989)
Professor, Construction Technology/Drafting
B.A., California State University, Long Beach

Estephan, Joseph (2003)
Instructor, Math
B.A., University of California, Los Angeles
M.A., University of Southern California

Faro, Tom (1988)
Professor, Electronics & Computer Technology

Fedderson, Robert (2001)
Assistant Professor, Computer Information Systems
B.A., California State University, San Bernardino

Ferrance, Francis (1973)
Professor Emeritus, English
A.B., Stonehill College
M.A., University of Rhode Island
M.Ed., Bridgewater State College
Ph.D., University of Arizona

Fields, Ron (1992)
Professor, Administration of Justice
B.A., M.A., California State University, Fullerton

Flome, Robert (1979)
Professor, Psychology
B.A., San Fernando Valley State, Northridge
M.A., M.Ed, Chapman University

Foster, John Franklin (1992)
Professor, Art/Photography
B.F.A., Memphis College of Art
M.F.A., California Institute of the Arts

Franco, Cuauhtemoc (1990)
Professor, Spanish
B.A., M.A., California State University, Fresno

Freeman Fay (1990)
Director, Instructional Compliance
B.A., California State University, Long Beach
M.A., California State College, Fullerton
Ed.D., Pepperdine University

Frohner, Theodore (1985)
Professor Emeritus, History
B.S., M.A., Ohio State

Galvez, Dixie (1976)
Professor Emeritus, Nursing
A.B., University of Redlands
M.P.H., M.S.N., Loma Linda University

Garcia, Diego (1989)
Professor, Nursing
B.S., California State University, San Bernardino
M.S.N., Azusa Pacific University

Garver, Kenneth (1970)
Professor Emeritus, Biological Sciences
B.S., Northern Arizona University
M.Ed., University of Arizona

Gaytan Manuel (1999)
Assistant Professor, EOPS Counseling
B.A., M.S., California State University, San Bernardino

Gibbs, David (2004)
Instructor, Biological Sciences
B.A., M.S., California State Polytechnic University, Pomona

Glebe, Andrea (1997)
Associate Professor, English
B.A., B.A., Washington State University
M.A., Colorado State University

Golder, Patricia (1997)
Associate Professor, English/Basic Skills
B.A., M.A., California State University, San Bernardino

Golliher, Carol (1987)
Professor, English
B.A., Alma College
M.A., Eastern Washington University

Graham, David (2002)
Instructor, Music
B.A., University of the State of New York
M.A., California State University, Dominguez Hills

Green, Patricia (1990)
Director of Nursing
B.S., University of Oregon
M.S., University of Michigan
M.A., San Diego State University

Grimes, Fontella (2003)
Counselor, EOPS Counseling
B.A., M.S., San Diego State University

Grover, Christopher (1993)
Professor, Real Estate
B.A., California State University, San Bernardino
M.B.A., Heriot-Watt University, Edinburgh

Guardado, Lynn (2001)
Assistant Professor, Dance
B.A., San Diego State University
M.A., California State University, San Bernardino

Harvey, Lisa (1999)
Assistant Professor, Biological Sciences
B.A., Point Loma College
M.S., Ph.D., Loma Linda University

Heaberlin, Jr. W. Edward (1997)
Associate Professor, Theatre Arts/Speech
B.F.A., M.A., Marshall University

Hendrickson, Brian (2004)
Instructor, Paramedic

Hinson, Dolores (1999)
Assistant Professor, Spanish
M.A., Georgia State University
Ph.D., University of Georgia

Hollomon David (1990)
Professor, Business Administration
B.S., California State University, Long Beach
M.A., California State University, Los Angeles

Holmes, Jeffrey (2001)
Director of DSPS /ADA Compliance Officer
B.A., Azusa Pacific University
M.A., Fuller Theological Seminary

Hoover, David (2000)
Assistant Professor, Physical Education/Football Coach
B.A., California State University, Los Angeles
M.Ed., Azusa Pacific University

Huff, Norman (1967)
Professor Emeritus, Computer Information Systems
A.A., Victor Valley College
B.S., San Diego University
M.B.A., Golden Gate University

Huiner, Leslie (2001)
Assistant Professor, Librarian
B.A., University of California, Riverside
M.L.S., San Jose State University

Irby, Kermit (1971)
Professor Emeritus, Business Administration
B.S., University of California, Davis
M.A., California State University, Los Angeles

Irwin, Tom (1961)
Professor Emeritus, Biological Sciences
B.A., University of California, Santa Barbara
M.A., Chapman College

James, Pamela (1997)
Associate Professor, Counseling
B.S., California State University, Fullerton
M.A., California State University, San Bernardino

Jennings, Patricia (2001)
Assistant Professor, Psychology
B.A., M.A., Antioch University

Jones, Scott (2003)
Instructor/Coordinator, Paramedic/EMS
B.S., Loma Linda University

Kaiser, Hinrich (2002)
Instructor, Biology
B.S., Ph.D., McGill University, Montreal, Canada

Keil Margaret (1996)
Associate Professor, Nursing
B.S., California State University, San Bernardino
M.S., University of Phoenix

Kelly, Margaret (1975)
Professor Emeritus, Nursing
B.S., M.S., California State University, Los Angeles

Kennedy, Thomas (1998)
Associate Professor, Chemistry
B.S., University of Rochester
M.S., California State Polytechnic University, Pomona

Kinney, Lee (2001)
Assistant Professor, Anthropology and Geography
B.A., M.A., California State University, San Bernardino

Kirkham, Robert (1979)
Professor, Physics
B.A., University of California, San Diego
M.S., San Diego State University

Kohlschreiber, Molly (1976)
Professor Emeritus, Art
B.A., M.A., Long Beach State College

Kroencke, John (1971)
Professor Emeritus, Business Administration
A.B., M.A., San Jose State College

Kumlin, Allan (1979)
Professor Emeritus, Cooperative Education
B.V.E., M.A., California State University, San Bernardino

Lackey, Jennie A. (1967)
Professor Emeritus, Psychology
B.A., University of Minnesota
M.Ed., University of Montana, Missoula

Lewallen, Willard (1999)
Vice President, Student Services
B.S., California State Polytechnic University, Pomona
M.S., M.S., Ed., Purdue University
Ph.D., University of California, Los Angeles

Longshore, David (1973)
Professor Emeritus, Mathematics
B.A., Long Beach State College
M.S., University of Southern California

Mackay, Pamela (1992)
Professor, Biological Sciences
B.S., B.S., M.S., California State Polytechnic University, Pomona

Malone, James Patrick (2000)
Assistant Professor, Mathematics
B.A., M.S., Humboldt State University

Marin, Traci (2003)
Instructor, Respiratory Therapy
A.S., Victor Valley College
B.S., M.P.H., Loma Linda University

Mauch, W. Patrick (2003)
Instructor, Mathematics
B.S., College of Great Falls, Montana
M.S., Montana State University

Mayer, Eric (1989)
Professor, History
B.A., M.A., Ph.D., University of California, San Diego

McCracken, Michael (2000)
Assistant Professor, Counseling
B.A., University of California, Riverside
M.A., California State University, San Bernardino

McDevitt, Steven (1976)
Professor, Speech/Social Science
B.A., University of Southern California
M.A., California State University, Fullerton
J.D., Western State University College of Law, Fullerton

Melkonian Arda (1998)
Associate Professor, Mathematics
B.S., M.A, M.A., University of California, Los Angeles

Menser, Gary (1983)
Professor, Industrial Arts/Welding
B.A., M.A., California State University, Long Beach

Miller, David J. (1990)
Professor, Counseling/Psychology
B.A., University of California, Berkeley
M.S., University of Wisconsin, Madison
Ed.D., U.S. International University, San Diego

Miller, Thomas (1976)
Professor, Music
B.M., Biola University
M.M., M.S.M., Southern Methodist University
Ph.D., University of Southern California

Milroy, Marjorie (1968)
Professor Emeritus, Speech/Theatre Arts
B.A., San Jose State College, California
M.A., California State University, San Bernardino

Mirci-Smith, Theresa (1990)
Professor, Speech
B.A., California State University, Sacramento
M.A., California State University, Fullerton

Moon, Oscar Odell (1990)
Professor, Business Administration
B.S., California State Polytechnic University, Pomona
J.D., Western State University, Fullerton

Moser, David (1999)
Assistant Professor, Mathematics
B.A., M.A., California State University, Los Angeles

Nelle, Stephen (2003)
Instructor, Computer Integrated Design & Graphics
B.A., University of California, Santa Barbara

Nunez, Peggy (1999)
Assistant Professor, EOPS Counseling
B.A., University of California, Santa Barbara
M.A., University of Denver

Oliver, Claude (2001)
Assistant Professor, Computer Integrated Design and Graphics
B.S., California State University, Fresno
M.A., Chapman University

O'Neil, L. Thomas (2004)
Dean, Humanities & Social Sciences
Ph.B., University of North Dakota
M.A., Ph.D., McMasters University, Canada

Paine, John (1998)
Associate Professor, Physical Education
B.S., California State Polytechnic University, Pomona
M.Ed., Azusa Pacific University

Palmer, Rebecca (1989)
Professor, Business Education Technology
B.V.E., California State University, San Bernardino

Parisi, Nicholas (2004)
Dean, Vocational Education Programs
A.A., Chabot College
B.A., California Baptist University
M.Ed., Heritage College

Pendleton, Joseph (2000)
Assistant Professor, Reading Specialist
B.A., B.A., University of California, Irvine
M.A., Marquette University
M.A., University of California, Berkeley

Pierce, Sherri (2000)
Assistant Professor, DSPS Counseling
B.A., M.A., California State University, Long Beach

Previte, James (1981)
Professor, Psychology
B.S., University of California, Davis
M.A., Loyola Marymount University

Price, Clova (1968)
Professor Emeritus, Business Administration
B.S., Oklahoma State University
M.A., Arizona State College

Pugh, Donald (1974)
Counselor Emeritus
B.A., M.A., San Jose State College
Ph.D., University of Idaho

Ramming, Alice
Instructor, Nursing
A.S., Mt. San Antonio College
B.A., California State University, San Bernardino
M.S., California State University, San Bernardino

Reardon, Cherie (1999)
Assistant Professor, Mathematics
B.A., M.A., California State University, San Bernardino

Redona, Jeff (1999)
Assistant Professor, Mathematics
B.A., M.A., California State University, San Bernardino

Ricci, Melody (2001)
Assistant Professor, Biological Sciences
B.A., M.A., California State University, Fullerton
M.S., University of Wisconsin

Ridge, Patrick J. (2001)
Assistant Professor, Mathematics
B.A., M.A., California State University, San Bernardino

Ripley, Richard (1997)
Associate Professor, Art
B.A., Kenyon College
M.F.A., Claremont Graduate School

Risser, Joy (1975)
Professor Emeritus, Business Administration
A.B., Carthage College
M.A., University of Redlands
Ph.D., University of California, Los Angeles

Rodriguez, David (2001)
Assistant Professor, Dance
B.A., University of California, Santa Cruz
M.F.A., University of Arizona

Rowland, Daniel (1993)
Associate Professor, Automotive Technology
A.S., Victor Valley College
B.A., California State University, San Bernardino

Rubayi, Rhalid (2000)
Assistant Professor, Electronics & Computer Technology
B.S., M.S., Northrop University

Rude, John (1997)
Associate Professor, Speech/Theatre Arts
B.S., Bemidji State College
M.A., Ball State University
Ph.D., University of Missouri

Ruiz, Maria (1999)
Assistant Professor, English as a Second Language
B.A., San Jose State University

Samaniego, D.C (1970)
Professor Emeritus, Spanish
B.S., Arizona State College
M.A., Arizona State University

Sanchez, Lilia (2004)
Counselor, Bilingual
B.A., University of California, Riverside
M.A., University of Redlands

Satchell, Sharon (2004)
Instructor, Nursing
M.S., California State University, Long Beach

Schmidt, William (2004)
Director, Human Resources
A.B., San Francisco State College
M.S., Ed.D., University of Southern California

Shahin, Louis (1984)
Professor, Mathematics
B.S., M.S., University of California, Los Angeles

Skuster, Jane (1979)
Professor, English
B.A., Carleton College
M.A., Duke University

Skuster, Marc (1977)
Professor, Philosophy/Religious Studies
B.A., Simpson College
Rel.M., School of Theology at Claremont
Ph.D., Claremont Graduate School

Slade, Neville (2000)
Assistant Professor, Horticulture
M.S., Colorado State University

Smith, Carl (1994)
Director of EOPS
B.A., M.A., California State University, San Bernardino

Smith Michael (2000)
Assistant Professor, Education
B.A., University of California, Riverside
M.A., Pepperdine University

Solis, Judy (1998)
Associate Professor, English
B.A., M.A., Kent State University

Spencer, Patricia A. (2003)
Superintendent/President
B.S., University of La Verne
M.A., Ph.D., University of California, Riverside

Sweet, John (1996)
Associate Professor, Automotive

Sypkens, Mary (1993)
Professor, Child Development
B.S., University of La Verne
M.A., Pacific Oaks College

Tashima, Eugene (1985)
Professor, Sociology
B.A., Humboldt State University
M.A., University of California, Los Angeles

Taylor, Shuron (2001)
Assistant Professor, Computer Integrated Design and Graphics
B.A., M.P.S., New York University

Teel, Patricia (2001)
Assistant Professor, English
B.A., M.A., California State Polytechnic University, Pomona

Thibeault, Sally (1999)
Assistant Professor, Nursing
B.S., M.S., California State University, San Bernardino

Tillman, Mary Susan (1987)
Professor, Learning Disabilities Program Counselor
B.A., Biola University
M.A., Loyola Marymount University

Thomas, Shane (2000)
Assistant Professor, CIS
A.A., Victor Valley College
B.A., California State University, San Bernardino

Tomlin, Karen (1987)
Professor, English
B.A., M.A., University of California, Santa Barbara

Toner, Stephen (2002)
Instructor, Mathematics
B.A., California State University, Fullerton
M.A., Chapman University

Tonning, Paul (2000)
Instructor, CIS (Web Development)
B.S., California State University, San Bernardino

Trost, Jaclyn (2002)
Counselor, DSPS Counseling
B.A., M.A., California State University, San Bernardino
M.A., Azusa Pacific University

Truelove, Terry (2003)
Instructor, Nursing
B.S., Oakland University, Michigan
M.S., University of Phoenix

Turner, Tom (2004)
Instructor, Fire Technology

Vegna, Paul (1970)
Professor Emeritus, Mathematics
B.S., Illinois State University
M.S., Bradley University

Victor, Bruce (1990)
Professor, Physical Education
B.S., California State University, Los Angeles
M.A., Azusa Pacific University

Vila, Martha (1998)
Assistant Professor, Spanish
M.A., University of Nevada, Las Vegas

Visser, Sandy (2003)
Instructor, Child Development
B.S., M.S., University of La Verne

Wagner, Patricia (1999)
Assistant Professor, English
A.A., Long Beach City College
B.A., M.A., California State University, Long Beach
M.P.W., University of Southern California

Walker, Kenneth (1974)
Professor Emeritus, Biological Sciences
B.A., Long Beach State College
M.S., Northern Arizona University

Weathersby, Bonnie (2001)
Assistant Professor, Counselor
B.A., M.A., California State University, San Bernardino

Weis, Ahn (2001)
Assistant Professor, Mathematics
B.A., M.A., California State University, San Bernardino

White, Christa (1998)
Associate Professor, Physical Education
B.S., Texas Tech University
M.Ed., Azusa Pacific University

Wilson James (1999)
Assistant Professor, English
B.A., University of Colorado
M.F.A., Wichita State University
M.A., Kansas State University

Wollan, Diane (2003)
Counselor
A.B., M.S., San Diego State University

Wood, Brent (2000)
Assistant Professor, Commercial Photography
B.A., Brooks Institute of Photography, Santa Barbara

Yong, Henry C.V. (2000)
Dean of Instruction, Academic Services
B.A., Ed.S., M.A., Specialist in Education,
Loma Linda University

Young, Henry (1995)
Associate Professor, Business Administration
B.S., California State Polytechnic University, Pomona
M.B.A., University of Phoenix

CLASSIFIED STAFF

Alexander, Rhonda (1997), Laboratory Aide
Anderson, Luke (2003), Inst Network/Computer Maint Tech
Angulo, Kenneth (1998), Custodian
Aragues, Rhiannon (2004), Sign Language Svces Interpreter
Armstrong, Terrie (1997), Instructional Assistant I
Avila, Silvia (2004), Office Assistant, Bilingual
Bandringa, Pearl (2004), Accounting Technician II
Barbosa, Margarita (1995), Administrative Assistant
Barnett, Patricia (1987), DSPS Specialist
Bazurto, Theresa (1999), Administrative Secretary I
Becerra, Chicpaul (2000), Office Assistant
Bernor, Gary (1998), Communication Systems Technician
Bohnsak, Summer (2004), Bookstore Assistant
Bourdy, Cynthia (2001), Office Assistant
Brehm, Chris (2002), Office Assistant
Browne, Aaron (1993), Book Division Coordinator
Burkhard, Dianne (1997), Admissions & Records Assistant
Butler, Renay (2000), Accounting Technician I
Caldwell Sheree (1999), Placement Specialist
Camarena, Yvonne (1998), CDC Permit Teacher
Cardoza, Maria (2004), Admissions & Records Assistant
Carlton II, William D. (1997) Sgt Campus Police/ Public Safety
Carney, Jim (1999), Campus Police/Public Safety Officer
Casler, Arthur (1997), Maintenance Worker
Castleman, Darlene (1978-1998), Distinguished Service
Cera, Linda (1988), Administrative Assistant
Chapman, Diane (1996), Financial Aid Specialist
Chavez, Rocio (2004), Human Resources Technician
Chesser, Deborah (2004), Sign Language Svcs Interpreter
Chip, David (2002), Office Assistant
Christensen, M. Tillie (1992), Library Technical Assistant
Christianson, Julie (2000), Administrative Secretary I
Christian Nancy (1988), Performing Arts Center Technician
Clair, Mark (1999), Institutional Research Coordinator
Compton Nonnie (2000), Payroll Technician
Conrad, Michelle (2001), Accounting Technician I
Cook, Jonathan (2003), Instructional Assistant II
Cooper, Dave (2004), Custodian
Corbin Rosaline (1999), Custodian
Cross, Doug (1998), Instructional Assistant III
Crowley, Kevin (2000), Inst Network/Comp Maint Tech
Curci, Paula (2004), Ticket Sales
Dance, Tamara (1990), Admissions & Records Assistant
Dane, Mary (1999), CDC Permit Teacher
David, Leta (1996), Network Manager
Davisson, Barbara (2002), Office Assistant
Derryberry, Donna (1998), Administrative Secretary I
Dershem, Babette (2004), Instructional Assistant III
Do, Eileen (2001), Webmaster
Dorval, Judi (1999), Citation Specialist
Drew, Rebecca (1999), Administrative Secretary II
Embrey, Vira (1990), Administrative Secretary II
Erdmann, Karen (1990), CDC Permit Teacher
Espinoza, Jan (2001), CDC Associate Teacher
Etheridge, Jasper (1997), Sgt, Campus Police/ Public Safety
Farrand, Kathleen (1990), Human Resources Analyst
Fennessey, Josephine (1993), Instructional Assistant III
Finch, Tammy (2002), Grounds Maintenance Worker
Finch Jr., William (1984), Maintenance Worker
Flenna, Michael (1997), Custodian
Flenna, Peter (1997), Custodian
Ford, Carole (1999), Instructional Assistant II
Foster, Sheri Nolan (1985), Coord, Payroll and Benefits
Foxworthy, Doug (2000), Financial Aid Specialist
Garcia, Carly (2004), Sign Languages Svcs Interpreter
Garcia, Stephen (1989), Director of M & O
Gilbert, Thomas (2000), Network Microcomputer Tech
Gonzales, Salena (2004), Campus Police/Public Safety
Gonzales, Susan (1991) CDC Food Service Specialist
Greene, Arlene (1988), Purchasing Technician
Greene, Mitchell (1996), Network Manager
Grefsrud, Robin (2005), Bookstore Assistant
Greulich, Bill (1989), Director Marketing/Public Info
Groom, Sharon (1997), Financial Aid Specialist
Guinotte, Christine (2001), Administrative Secretary I
Gummo, Patricia (1990), Laboratory Technician
Halisky, Cathy (1979), Director, Mgmt Information Systems
Hannaman, Doug (1999), Lead Maintenance Worker
Harriman, Darrell, (1999), Electronics Lab Specialist
Henning, Lori (2001), Accounting Technician II
Hernandez, Yvonne (2002), Instructional Assistant III
Hinojos, Susan (2002), Instructional Assistant I
Hoppes, Joann (1997), Instructional Assistant I
Howie, Brian (1997), Maintenance Worker
Huggins, LaDonna (2001), Office Assistant
Hughes, Butch (2001), Grounds Maintenance Worker
Huiner, Beverly (1986), Instructional Assistant I/Typesetter
Jackson, Rita (2001), Instructional Assistant I
Jacquez, Noreen (1999), Campus Police/Public Safety
James, Bernadine (2001), Administrative Secretary I
Janisko, Gina (1998), Financial Aid Specialist
Jasso, Evelyn (1998), CDC Associate Teacher
Johnson, David (2002), Grounds Maintenance Worker
Jordan, Ernestine (2001), Switchboard Op/Receptionist
Jordan, Pacita (2002), CDC Associate Teacher
Jordan, Jr., Laymon (1997), Vehicle/ Equipment Mechanic
Kagy, Margaret (1989), C.A.R.E. Specialist
Katnic, Laura (2001), Office Assistant
Kaur, Updesh (2000), CDC Permit Teacher
King, David (1993), Maintenance Technician
Kohler, Amy (2004), Library Technical Assistant
Kwan Michael (1997), Instructional Assistant III
Lanceta, Melissa (2005), Bookstore Assistant
Lanphear, Joanna (1999), Custodian
Lares, Sonia (2003), CDC Associate Teacher
Leaveaux B. Michelle (1997), Instructional Assistant III
Lee, Robert (2005), Senior Systems Analyst
Lent, Debra (1988), Accounting Technician I
Lexion, April (1986), Administrative Secretary II
Loomis, Tim (2001), Maintenance Worker

Lough, Margie (1972-1998), Distinguished Service
Macias, Eugenia (2004), Student Dev Center Assistant
Manriquez, Veronica (1997), CDC Permit Teacher
Marble, Mary (2005), Director, Admissons and Records
Marsh Claudia (1973), Laboratory Technician
Martin, Mary (1987), Administrative Secretary II
Martinez, Carlos (1997), Lead Custodian
Mata, Kathy (1998), Accounting Technician I
McComas, Annette (2000), Administrative Assistant
McDaniel Linda (2002), Switchboard Op/Receptionist
Melendez, Simon (1982-2000), Distinguished Service
Mendez, Martha (2004), Office Assistant, Bilingual
Messer, Monty (1996), Lead Warehouse/Delivery Worker
Messer, Michelle (1999), M & O & Facilities Clerical Tech
Miller, Sam (1998), Custodian
Mohr, Diane (2002), Office Assistant
Montgomery, Patricia (2001), Placement Specialist
Moon Greta (1990), Records Evaluator II
Moore, Kathleen (1980), Media Services Coordinator
Moreno, Christina (1997), Senior Systems Analyst
Moreno, Sandra (2001), Office Assistant
Mount, Paul (1997), Custodian
Mulligan, B. Scott (1998), Offset Press Operator
Murphy, Deanna (2000), Bookstore Operations Assistant
Murray, James (2002), Financial Aid Specialist
Musso, Carole (1997), Administrative Secretary I
Navarro, Ray (1998), Instructional Assistant III
Niche, Eva (2001), CDC Associate Teacher
Nickerson, William (1997), Instructional Assistant I
Nollner, Holly (2001), Administrative Secretary I
O'Brien, Mary Jo (1983-2000) Distinguished Service
Ornelas, Lori (2000), Administrative Secretary I
Ortiz, Paulette (2002), Office Assistant
Osborne, Lori (1997), Admissions and Records Assistant
Ostberg, Christine (2000), Office Assistant
Parker, Sharon (1997), Office Assistant
Parmer, William (Tom) (2000), Custodian
Pearson, Eric (1981), Performing Arts Center Coordinator
Penland, Pamela (1997), Administrative Secretary I
Peterson, Deborah (2000), Instructional Assistant III
Pontius, Dana (2002), Office Assistant
Potts, Deborah (2000), Administrative Secretary II
Prewett, Deborah (2004), Ticket Sales Assistant
Prieto, Angela (1977), Library Technical Assistant
Prieto, Luis (1999), Warehouse/ Delivery Worker
Pringle, Mary (1984), Director of Fiscal Services
Pringle, Willie (1977), Director of Student Services
Quesada, Gabriela (2004), Stu Dev Ctr Specialist, Bilingual
Randolf, Alfred (2004), Custodian
Rempfer, Maria (2001), Bookstore Operations Assistant
Reyes, Eddie (2000), Grounds Maintenance Worker
Reyes-Garcia, Renee (2003), Accounting Technician I
Reynoso Stultz, Adrienne (1998), CDC Associate Teacher
Richards, Robbie (2002), Office Assistant
Richey Jr., Robert (1986), Communications Sys Coordinator
Roberts, Beth (2000), Student Development Center Assistant
Robillard, Teresa (1998), CDC Permit Teacher
Rodgers, Lauriel (1990), Library Technical Assistant
Rodriguez, George (2000), Custodian
Rodriquez, Melina (2002), CDC Technician
Rosander, George (1998), Instructional Assistant III
Ruby, Peggy (1998), CDC Infant/Toddler Associate Teacher
Sandello, Margie (1993), Coordinator, Student Services
Sewell, Robert (1994), Director of Auxiliary Services
Sharp, Ann Marie (2002), Accounting Technician I
Short, Jerome (2002), Database Administrator
Simmons, Jennifer (2001), Administrative Secretary I
Singh, Kuki (2000), CDC Associate Teacher
Sisk, Diana (2003), Instructional Assistant II
Snead, Delia (2002), Financial Aid Specialist, Bilingual
Snell-Gonzales, Shirley (2000), Administrative Assistant
Solis, Bonifacio (1999), Admissions and Records Assistant
Stalians, Jeff (2003), Instructional Assistant III
Stanford, Shirley (1993), Attendance Accounting Technician
Steinback, David (1995), Instructional Assistant III
Stevulak, Michael (2004), Inst Network/Comp Maint Tech
Stewart-Leffew, Amy (1998), Lead Grounds Maint Worker
Stump, Carole (2003), Library Technical Assistant
Suderno, Jean (1997), Admissions and Records Assistant
Sullivan, Eileen (1987), DSPS Specialist
Tashima, Julia (1992), Director of Athletics/Athletic Trainer
Thomas, Jack (1997), Director Campus Police/ Public Safety
Thompson, Ann (1968), Accounting Technician I
Thompson, Patricia (1986), Records Evaluator II
Townsend, Lisa (2002), Administrative Secretary I
Tran-Quang, Cam-Quynh (2005), Sr Prog/Software Develpr
Tremblay, Julie (1997), Library Technical Assistant
Turner, Nancy (2004), Sign Language Services Interpreter
Ullger, Kendra (2004), Ticket Sales Assistant
Underwood, Starla (2002), Financial Aid Specialist
Vanover, Robert (1997), Instructional Assistant III
Vidana-Barda, Marie (1990), Accounting Technician II
Wack, Gerald (2002), Grounds Maintenance Worker
Walker, Frank (1998), Lead Warehouse Delivery Worker
Wikstrom, Ruby (1989), Coordinator, Curric & Scheduling
Wilkin, Amy (1999), Athletic Trainer
Wilkett Nancy (1990), Custodian
Williams, Audrey (1983), Records Evaluator II
Willingham, Lael (1987), Administrative Assistant
Wilson, Cynthia (1999), Human Resources Analyst
Wright, Sharon (1999), Accounting Technician II
Youngs, Albert (2000), Instructional Assistant III

XI.
INDEX

"The silver spoon is predominantly wielded by
those who eat from the bowl of knowledge."

-W. J. Greulich
1948-

A

B

C

D

E

F

G

H

I

J

L

M

N

O

P

R

S

T

U

V

W

Victor Valley College
2005-2006 Academic Calendar

Summer 2005 four day work week begins week of June 13, 2005 and ends August 26, 2005.

June 2005

20 Summer Session Begins

July 2005

4 Independence Day Holiday-College Closed

August 2005

12 Summer Session Ends

29 Fall Semester Starts

September 2005

5 Labor Day Holiday

16 Staff Development Day-No Classes

November 2005

11 Veteran's Day Holiday-College Closed

24-25 Thanksgiving Holiday-College Closed

26-27 No Classes-College Closed

December 2005

17 Fall Semester Ends

22 In Lieu of Admission's Day

23 Christmas Eve Holiday (Observance)

26 Christmas Day Holiday (Observance)

27-28 Board Given Holidays

29 Mandatory Vacation Day

30 New Year's Eve Holiday (Observance)

January 2006

2 New Year's Day (Observance)

3 Winter Session Begins

16 Martin Luther King, Jr. Holiday-College Closed

February 2006

10 Winter Session Ends

13 Spring Semester Begins

17 Lincoln Day Holiday-College Closed

20 Washington Day Holiday-College Closed

March 2006

April 2006

10-13 Spring Break-No Classes Held

14 Spring Break Holiday-College Closed

May 2006

29 Memorial Day Holiday-College Closed

June 2006

9 Commencement

10 Spring Semester Ends

July 2006

4 Independence Day Holiday-College Closed

JUNE 2005

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

JULY 2005

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

AUGUST 2005

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

SEPTEMBER 2005

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

OCTOBER 2005

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

NOVEMBER 2005

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

DECEMBER 2005

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

JANUARY 2006

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

FEBRUARY 2006

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

MARCH 2006

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

APRIL 2006

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

MAY 2006

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

JUNE 2006

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

JULY 2006

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

AUGUST 2006

S	M	T	W	Th	F	S
		1	2	3	4	5
6	7	8	9	10	11	12

Pending Board Approval.

Key

First/Last
Reconvene
Commencement
Staff Development Day-No Classes
Holiday-College Closed
Recess
Campus Closed

**2006 subject to change pending negotiations with CCA.