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This Catalog Can Help You...

❖ To more easily find what you are looking for in this catalog, use the INDEX beginning on page 277.

❖ 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, Spring Recess, the final examination schedule, the last day you may drop classes, and more.

❖ To learn more about various careers for which you can prepare at Victor Valley College, explore PROGRAMS OF STUDY beginning on page 71. Use the index on page 277 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 139.

❖ To assure you complete all requirements for an ASSOCIATE DEGREE at Victor Valley College, carefully read REQUIREMENTS FOR GRADUATION beginning on page 43. To find out which courses fulfill GENERAL EDUCATION REQUIREMENTS for an associate degree, turn to page 49.

❖ To find information about requirements to TRANSFER from Victor Valley College to any California State University (CSU) turn to page 52; to any University of California (UC) campus, turn to page 48. To find out which courses fulfill CSU GENERAL EDUCATION REQUIREMENTS...pages 53, 54. To find out which courses fulfill INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC) REQUIREMENTS, turn to pages 49, 50.

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

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 92392-5849 • (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 Corrections 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 832.2 Certificate
Police Technician Specialist Certificate
Public Safety Internship Certificate

Agriculture and Natural Resources
Environmental Field Studies Certificate
Equine Science Specialist Certificate
Floral Design Certificate
Landscape and Nursery Management Certificate
Landscape Installation Specialist/Nursery Technician Certificate
Landscape Irrigation Certificate

Allied Health
Certified Phlebotomy Technician 1A Certificate
Certified Phlebotomy Technician 1B Certificate
Certified Phlebotomy Technician 1C Certificate
Nursing Assistant/Home Health Aide 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 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
Netware Certificate
Network Specialist Certificate
Programming I Certificate
Programming II Certificate
Productivity Software Specialist 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/III Certificates

Electronics and Computer Technology, A.S.
CISCO Networking Academy I, II, III, IV Certificate
Communication Electronics Certificate
Computer Technology Certificate
Digital Electronics Certificate TV
Electronic Technology Certificate

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

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

Medial Assistant, A.S.
Medical Assistant Certificate

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

Ornamental Horticulture, A.S.

Paramedic, A.S.
Emergency Medical Technician I (Ambulance) Certificate
Emergency Medical Technician (Refresher) Certificate
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**
We at Victor Valley College are committed to excellence in educational programs and services that are accessible to a diverse student population. We will continue to be an educational leader by striving for instructional excellence, being responsive to the needs of the community, and providing a nurturing learning environment.

**OUR GUIDING BELIEFS ARE:**

- Students are our top priority;
- Students learn better in a nurturing environment;
- Learning enhances the quality of life;
- Learning is lifelong;
- A commitment to holistic academic excellence is essential;
- Respect, responsibility, and integrity are the foundation of a quality educational environment;
- Quality education is essential to participation in a free society;
- Cultural and ethnic diversity enriches learning and educational development;
- The faculty, staff, administration, and students are a synergistic educational team;
- Every individual is both a teacher and a learner;
- Everything we do impacts the quality of our institution;
- Effective communication is essential for a quality educational environment;
- Responsibilities go hand-in-hand with rights;
- The college and the community are interdependent, each bringing unique contributions to the other;
- Individuals have the opportunity to pursue their educational goals without barriers or discrimination;
- The ability to change in response to the rapid advancements of our society is essential.

**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 wildflowers in the spring.

Victor Valley College is one of the most modern of the 106 community colleges in California, which are attended by 10 percent of all students in the United States. For more than 40 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 b, a new 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.

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
Maxine Moore

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 Strategic Development plans 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.

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.

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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
Peter Allan, Vice President, Student Learning - Interim
Dr. Willard Clark Lewallen, Vice President, Student Services
Dr. James E. Williams, Vice President, Administrative Services
Tom Clark, Dean, Vocational Programs
Dr. Leonard M. Crawford, Dean, Student Services
Vacant, 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 Higher Education, Southern Association of Schools and Colleges/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 in 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.


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 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:

<table>
<thead>
<tr>
<th>Category</th>
<th>Incidents through July</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2002</td>
</tr>
<tr>
<td>Murder</td>
<td>0</td>
</tr>
<tr>
<td>Rape</td>
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<td>Assault</td>
<td>1</td>
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<tr>
<td>Auto Theft</td>
<td>2</td>
</tr>
<tr>
<td>Auto Burglary</td>
<td>2</td>
</tr>
<tr>
<td>Being under the influence</td>
<td>3</td>
</tr>
<tr>
<td>Weapons possessions</td>
<td>0</td>
</tr>
<tr>
<td>Burglary</td>
<td>9</td>
</tr>
</tbody>
</table>

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: siècle las guías federales incluyendo el Título IX de la Enmienda Educativa 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 92392 (760) 245-4271, extension 2386.

Acoso Sexual
El reglamento del Colegio de Victor Valley prohíbe 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 92392 (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 92392 (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 92392 (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 aplicación 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 92392 (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 Estudiantiles 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 educación.

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:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completers</td>
<td>28.0%</td>
</tr>
<tr>
<td>Left in good standing</td>
<td>14.7%</td>
</tr>
<tr>
<td>Left in poor standing</td>
<td>16.0%</td>
</tr>
<tr>
<td>Still enrolled</td>
<td>21.8%</td>
</tr>
<tr>
<td>Transfers</td>
<td>16.4%</td>
</tr>
<tr>
<td>Other</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

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, a 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 two soccer fields. All facilities are available to students in athletics classes for organized team sports.

Community groups wishing to use the facility should 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.

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 the Student Activities Center/Community Conference Center (Building 44). Police/Security Office hours: Monday-Friday, 7:00am to 4:00pm. (760) 245-4271, extension 2329. After hours and weekend phone (760) 245-4271, extension 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 in addition to income eligibility.

The Child Development Center infant and toddler programs serve children from 6 weeks through 3 years; the preschool program serves children age 3 through 5.

The center is open Monday through Thursday, 7:30am to 7:00pm; 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 classroom 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 southeast end of the lake. This building includes the offices of Career Center, Counseling, Mailroom, Student Employment, Switchboard, Transfer Center, Vice President of Student Services and Vice President of Student Learning.

* 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, and are located on the lower campus behind the Construction Technology Building.

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

* SCIENCE LAB BUILDING (Building 31) — The Science Lab Building, located 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, pamphlets, microfilm, audio and video cassettes, and CDs. In addition to circulating books, the library has collections of reference, local history, and instructor-reserved materials available for use within the library. Photocopying, 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 one of the 19 online catalogs. There are 12 computers available for accessing the Internet and subscription databases. An ADA workstation equipped with adaptive technology software is available for students.

The library web page (http://www.vvc.edu/library) provides access to the online catalog and several full-text databases. 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 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. For more information call (760) 245-4271, ext. 2262.

Instructional Media Services are located on the lower level of the Library. Media services are available to faculty, staff, and students. Students in the Library may view instructional media services materials that are indexed in the library card catalog. A high speed audio tape duplicator can be used for duplicating classroom-related assignments. Cassette players with headphones are available in nearby carrels. Equipment is circulated to instructors for use in the classroom.

**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 $30 per vehicle per semester. The parking fee without the ASB card is $35 per vehicle per semester. The parking fee for Financial Aid students is $20 per semester per vehicle. Motorcycle permits are $5 in addition to the purchase of a vehicle permit.

The parking fee for Summer is $10 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 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 and teleconferencing 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 Activity Center and Humanities Complex.

Telecommunication devices for the deaf (TDD) have been placed on two telephones located in the Student Activity Center, one on each level of the center.

Vending machines dispensing a variety of food and beverage products are located throughout the campus. 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, Wednesday, and Thursday from 10:00 a.m.-7:00 p.m. and on Friday from 10:00 a.m.-5:00 p.m. Call (760) 245-4271, extension 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 year in California prior to the 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.

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**

International students are admitted to Victor Valley College during the fall semester.

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

Applications must be on file at the Admissions Office no later than May 15 of the year in which the student seeks admission.

An international student attending on a nonimmigrant student visa (F-I) 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-I) student status will be issued by the Admissions Office only after the following documents are received and approved:

1. Application for Admission
2. Sponsor’s Statement of Responsibility
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.
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)

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 the RamTalk or Online system 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.

Please see "Withdrawal from Class" in Section V.

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 from other accredited colleges and universities which are accepted 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, 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.

**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.

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**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 2279 or 2447.

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**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 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) building, the Language Lab is part of the ESL (English as a Second Language) 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 English or a foreign language.

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

LEARNING CENTER

The Learning Center, located in the Academic Commons, provides students with free academic support for their VVC classes. The Commons has space to comfortably work on homework, interact with tutors and fellow students, and do tutorial and required course work on one of 84 computers.

Help for specific classes varies by semester, but availability generally includes subjects such as: philosophy, chemistry, anatomy, Spanish, French, English, mathematics, political science, history, biology, psychology, geography, geology, health sciences, accounting, American Sign Language, economics, and music.

Free services in the Learning Center include:

- tutoring in 17 subject areas for groups and individuals.
- over 100 computer software applications in 15 subject areas plus many applications in CD-ROM format.
- word processing.
- Internet use for class related projects.

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 Activity 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 tee-shirts 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 Activity 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 and Treasurer.

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

According to the constitution of the student body, 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 to be appointed to student government positions.

**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
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 IA 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!

Everybody 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

- **Basic Skills Courses**
  - Math 10*: Basic Math Skills
  - Math 50: Elementary Algebra
  - Math 90: Intermediate Algebra

- **Math 104** Trigonometry
- **Math 105** College Algebra

- **Math 226** Analytic Geometry and Calculus
- **Math 227** Analytic Geometry and Calculus

- **Math 228** Analytic Geometry and Calculus
- **Math 270** Differential Equations

### English and Reading Course Sequences

- **Basic Skills Courses**
  - English 6*: Basic Reading and Writing
  - English 50: Writing Fundamentals
  - English 101: English Composition and Reading
  - English 102: Composition and Literature

- **English 59** Effective Reading and Study Skills
  - English 149: Critical Reading and College Study Skills

- **English 58*** Reading Improvement I

*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 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 mailed to area residents and are available at the Admissions and Records Office. Schedules are also 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 Polítca de Matriculación
Estudiantes pueden hacer una peticíon sobre cualquier parte de la política de matriculación (menos los requistos) 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 sera mantenido en la oficina del Decano de Servicios Estudiantiles por 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 18-week semester, 6 units during a 9-week term, or 4 units during summer sessions.

A common schedule is 15 college units per semester. With a normal course load, students may expect to devote approximately 45 hours per week to their college classes and to study.

Students are limited to a maximum of 18 units per semester. Concurrent students are limited to 12 units, and cannot petition.

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 at 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:

<table>
<thead>
<tr>
<th>Grade Symbol</th>
<th>Explanation</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4.0</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3.0</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory</td>
<td>2.0</td>
</tr>
<tr>
<td>D</td>
<td>Passing</td>
<td>1.0</td>
</tr>
<tr>
<td>F</td>
<td>Failing</td>
<td>0.0</td>
</tr>
</tbody>
</table>

OTHER SYMBOLS: (NOT CALCULATED INTO GPA)

<table>
<thead>
<tr>
<th>Grade Symbol</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR</td>
<td>Credit (not counted in GPA, equivalent to “C” or better)</td>
</tr>
<tr>
<td>NC</td>
<td>No Credit (not counted in GPA, less than “C”)</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal from class</td>
</tr>
<tr>
<td>IP</td>
<td>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.</td>
</tr>
<tr>
<td>RD</td>
<td>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.</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>

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! This 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. (The RamTalk and/or Online system 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 graded 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.

Students may petition to change a previous “WF” grade symbol to a “W” upon payment of a $15 fee per class.

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

Some courses are designated in the course description, which indicates repetition is allowed 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 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 sixth week of an 18-week semester or the end of the third week for nine-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 where 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/her lawful rights.

VVC 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. Due process for students in student conduct matters is fully explained in the **Student Rights and Responsibilities Handbook**, which students are expected to obtain and read. Copies are available at no charge in the Student Transition Center.

**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 on their grade report received at the end of each semester. This is followed 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 on the grade report received at the end of each semester (excluding summer session). This is followed by a letter encouraging students to see a counselor and/or to seek other support services.

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 on the grade report received at the end of each semester (excluding summer session). A follow-up letter is sent to these students strongly urging that they 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 the Petition for Readmission and failure to do so may result in immediate dismissal from VVC.
Advanced Placement (AP) credit is currently awarded at Victor Valley College as follows:

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

*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 low- and middle-income 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 non-tuition 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. There are 250 special Cal Grant B awards authorized for community college students transferring to four-year colleges. 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 four to 24 months in length.

Graduate Fellowships are open to those who demonstrate their intent to become college or university faculty members. About 500 awards annually 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.
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**  
New for High School Students

**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 2002-2003 Cal Grant B Entitlement Award, applicants must:

* Meet the Cal Grant Program general eligibility requirements
* Graduate from high school between July 1, 2001 and June 30, 2002
* 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, 2002
* Demonstrate financial need of at least $700
* 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 waiver. 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.

GI Bill students may be disqualified for further benefits if his/her GPA falls below 2.0 for two consecutive semesters. 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. and Saturday, 9:00a.m.-1:00p.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 $11 per semester unit with no maximum. For example, a student enrolling in 15 units would pay $165 enrollment fee.

Enrollment Fee Refunds
Excess enrollment fees resulting from program changes in regular classes may be refunded, less a $10 processing charge, 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.

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.

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

Parking permits and ASB cards must be surrendered upon withdrawal from school.

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.
Refunds are typically processed upon request, beginning after the deadline for refunds has passed. Students should allow 2-3 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 $137 per unit. Non-resident tuition fee for Nevada residents is $31 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 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 $35. Parking fee without ASB is $30.

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
$1.00 per student, 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 Administration Building.

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.

Except for refunds resulting from class cancellations or class rescheduling by the District, refunds are considered only when students complete “Request for Refund” forms and submit them to the Bursar’s office before the deadline for refunds expires.
VII.
MOVING ON

"Education is the best provision for old age."

-Aristotle
384-322 B.C.
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:

**ACADEMIC OBJECTIVE**       **Page**

A. Occupational Certificates       this page, next column

B. Associate's Degrees       43, 44

C. Transfer to a 4-year College or University       46
   University of California (UC)       48
   California State University (CSU)       52
   General Information about Transferring       55
   Accredited Non-Traditional Degrees       46
   Private Institutions       46
   Out-of-State Institutions       46

**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."
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 the grey-shaded pages of the catalog, 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 71.

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).

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:

<table>
<thead>
<tr>
<th>Graduation</th>
<th>Deadline to Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 2003</td>
<td>October 6, 2003</td>
</tr>
<tr>
<td>May 2004</td>
<td>February 2, 2004</td>
</tr>
<tr>
<td>August 2004</td>
<td>May 3, 2004</td>
</tr>
</tbody>
</table>

Distribution of units for the AA/AS Degree

<table>
<thead>
<tr>
<th>Major</th>
<th>General Ed</th>
<th>Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 units</td>
<td>18 units</td>
<td>24 units</td>
</tr>
</tbody>
</table>

2003-2004 Victor Valley College Catalog
VVC  VICTOR VALLEY COLLEGE  
ASSOCIATE DEGREE GRADUATION REQUIREMENTS  

<table>
<thead>
<tr>
<th>Major Course</th>
<th>Major Course</th>
<th>Major Course</th>
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<tr>
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</tr>
</tbody>
</table>

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

NOTE: A course may not fulfill more than one area.

<table>
<thead>
<tr>
<th>Category I: Natural Science .................................................................................................. minimum 3 units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALDH 102*; ANTH 101, 101L; ASTR 101; BIOL 70, 100, 104, 107, 108, 109, 114, 120, 121, 126, 127, 128, 129, 201, 202, 203, 211, 212, 221, 231, 232; CHEM 100, H100, 101, 114, 120, 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, 211, 222</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category II: Social and Behavioral Science ........................................................................ minimum 3 units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJ 101; ALDH 125; ANTH 101, 102, 103, 105; BADM 100, 117, 118; CHDV 106, 146, H146; ECON 101, 102; GEOG 101, 102; GUID 105*; HIST 50, 55, 103, 104, 115, 117, H117, 118, H118, 119, 120, 121, 124, 125, 127, 130, 131, 135, 150, 153, 155, 157; POLS 50, 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 101, 105, 106</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category III: Humanities ..................................................................................................... minimum 3 units</th>
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<table>
<thead>
<tr>
<th>Category IV: English Language ............................................................................................ minimum 6 units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courses in Category IV must be completed with grade of &quot;C&quot; or better.</td>
</tr>
<tr>
<td>Composition ......................................................................................................................... minimum 3 units</td>
</tr>
<tr>
<td>BADM 144; BET 145; ENGL 50, 101, H101, 102, H102</td>
</tr>
<tr>
<td>Communication .................................................................................................................... minimum 3 units</td>
</tr>
<tr>
<td>BADM 144; BET 143, 145; ENGL 50, 101, H101, 102, H102, 149; SPCH 106, 107, 108, 109</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category V: Analytical Thinking/Mathematics ........................................................................ minimum 3 units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courses in Category V must be completed with grade of &quot;C&quot; or better.</td>
</tr>
<tr>
<td>BADM 142; CIS 101, 201; ELCT 57, 58, 59, 60; ENGL 104, H104; MATH 50, 60, 90, 104, 105, H105, 120, 132, 226, H226, 227, H227, 228, H228, 231, 270; PHIL 109, 207</td>
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</tbody>
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<thead>
<tr>
<th>Elective Course</th>
<th>Elective Course</th>
<th>Elective Course</th>
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</tbody>
</table>

Courses Which Can Be Used for Non-Vocational Majors
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; BlOL 70, 100, 104, 107, 108, 109, 113, 114, 120, 121, 126, 127, 128, 129, 149, 201, 202,
GEOG 101, 101L, 103; GEOL 101, 102, 103, 109, 110, 112, 128, 129; MATH 50, 90, 104, 105, H105, 120, 128, 129, 132, 226, H226,
227, H227, 228, H228, 231, 270; OCEA 101; PE 102*; PSCl 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, H146; ECON 101, 102, 118, 128, 129; GEOG 101, 102;
GUlD 105*; HlST 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 115
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,
FREN 101, 102, 103, 104, 125, 128, 129; GERM 101, 102, 103, 104, 125; HlST 50, 55, 103, 104, 115, 117, H117, 118, H118, 119,
120, 121, 124, 125, 127, 130, 131, 135, 150, 153, 155, 157; MUSC 100, 101, 102, 103, 104, 105, 108, 110, 111, 112, 113, 115, 116,
117, 118, 120A, 1208, 120C, 120D, 120E, 120F, 120G, 120H, 120I, 120J, 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, 266, 267, 270,
266, 267, 270, 271, 274, 275

.......................................................................................................................................................

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,
120B, 120C, 120D, 120E, 120F, 120G, 120H, 120I, 120J, 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,
166, 167, 170, 171, 174,175, 266, 267, 270, 271, 274, 275

Math/Science Major, A. S.

..........................................................................................................................

minimum 18 units

ALDH 102*; ANTH 101, 101L; ASTR 101; BlOL 70, 100, 104, 107, 108, 109, 113, 114, 120, 121, 126, 127, 128, 129, 149, 201, 1 02,
ELCT 57, 58, 59, 60; GEOG 101, 101L. 103; GEOL 101, 102, 103, 109, 110, 112, 126, 129; MATH 90, 104, 105, H105, 120, 128, 129.
132, 226, H226, 227, H227, 228, H228, 231, 270; OCEA 101; PE 102*; PSCl 101, 114, 115, 128; PHYS 100, 128, 129, 201, 202, 203,
H204,221,222

Courses Which Can Be Used for Other Majors
Complete 18 units in an approved major

complete 18 units from any certificate offered under an approved major.

Electronics Engineering Technology, Medical Assistant, Nursing, Paramedic, and Respiratory Therapy degrees
require additional units above the 18-unit minimum requirement. See catalog for further information.

Requirements for Earning More Than One Associate Degree
1. Complete 18 units from an approved departmental major for each additional degree.
2. Courses used to fulfill MAJOR requirements in the first degree may not be used to fulfill MAJOR requirements for
the second degree, and so on.
3. The general education requirements used for the first degree must remain as the general education for all
additional degrees.

Victor Valley College Degrees
Administration of Justice, A.S.
Agriculture and Natural Sciences, 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.
Media Arts, 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 this College Catalog.

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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.

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 63. 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 (47-50) 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 51-54.

* 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 60-63 for more information.
The University of California

UC, DAVIS, CA 95616 (916) 752-1011
UC, BERKELEY, 1103 SPROUL HALL, BERKELEY, CA 94720 (510) 642-6000
UC, SAN FRANCISCO, SAN FRANCISCO, CA 94143 (415) 476-9000
UC, SANTA CRUZ, SANTA CRUZ, CA 95064 (408) 459-0111
UC, SANTA BARBARA, SANTA BARBARA CA 93106 (805) 893-8000
UC, LOS ANGELES, 405 HILGARD AVENUE, LOS ANGELES, CA 90024 (310) 825-4321
UC, IRVINE, IRVINE, CA 92717 (714) 856-5011
UC, RIVERSIDE, RIVERSIDE, CA 92521 (909) 787-1012
UC, SAN DIEGO, LA JOLLA, CA 92093 (619) 534-2230

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-seet") 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 "intersegmental"), 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-f" Subject Requirements. If you did not complete the a-f 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.

Planning to Transfer?


Visit www.ucop.edu/pathways for online undergraduate admissions information and applications.
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 lowerdivision 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 Group 1A, one from Group 1B, and one from Group 1C. **UC:** Two courses required, one from Group 1A and one from Group 1B.

<table>
<thead>
<tr>
<th>Group 1A</th>
<th>ENGLISH COMPOSITION</th>
<th>(Choose one course, 3 semester units minimum.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Course from Other College: __________________________ Advanced Placement __________________________ Test Name and Score __________________________

<table>
<thead>
<tr>
<th>Group 1B</th>
<th>CRITICAL THINKING AND ENGLISH COMPOSITION</th>
<th>(Choose one course, 3 semester units minimum.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 104; PHIL 207 (If taken Fall 1992 or thereafter)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Course(s) from Other College: __________________________

**NOTE:** If PHIL 207 or H207 was taken prior to Fall 1992, then ENGL 102 must also be completed.

<table>
<thead>
<tr>
<th>Group 1C</th>
<th>ORAL COMMUNICATION</th>
<th>CSU requirement only</th>
<th>(Choose one course, 3 semester units minimum.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCH 106, 108, 109</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Course from Other College: __________________________

### AREA 2 - MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING

Choose one course, 3 semester units minimum.

| MATH 105, H105, 120, 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.

<table>
<thead>
<tr>
<th>Group 3A</th>
<th>ARTS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101, 102, 104, 105, 106, 107, 108; MUSC 100, 101, 102, 104, 115, 116, 117, 118, 202, 204; Dance: PE 103; TA 101, 102, 116 (Cross listed as ENGL 116)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Course(s) from Other College: __________________________ Advanced Placement __________________________ Test Name and Score __________________________

<table>
<thead>
<tr>
<th>Group 3B</th>
<th>HUMANITIES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>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 115,124,125</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Course(s) from Other College: __________________________ Advanced Placement __________________________ Test Name and Score __________________________
AREA 4 - SOCIAL AND BEHAVIORAL SCIENCES  
Choose three courses from at least two different disciplines, 9 semester units minimum.

<table>
<thead>
<tr>
<th>AREA 4</th>
<th>SOCIAL AND BEHAVIORAL SCIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>IP</td>
</tr>
<tr>
<td>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 115</td>
<td></td>
</tr>
</tbody>
</table>

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 SA: Physical Sciences and one from JB: Biological Sciences, 7 semester units minimum. At least one must include a laboratory indicated by (L).

**Group 5A: PHYSICAL SCIENCES**

<table>
<thead>
<tr>
<th>AREA 5</th>
<th>PHYSICAL AND BIOLOGICAL SCIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>IP</td>
</tr>
<tr>
<td>ASTR 101; CHEM 100(L), 101(L), 104(L), 114, 202(L), 206(L), 207(L); GEOG 101, 101(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)</td>
<td></td>
</tr>
</tbody>
</table>

Course from Other College: ______________________ Advanced Placement ______________________  

Test Name and Score ______________________

NOTE: No credit for CHEM 100 or H100 if taken after CHEM 101. 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**

<table>
<thead>
<tr>
<th>AREA 5</th>
<th>PHYSICAL AND BIOLOGICAL SCIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>IP</td>
</tr>
<tr>
<td>BIOL 100(L), 104(L), 118, 201(L), 202(L), 203(L), 211(L), 212(L), 221(L), 231(L), 232(L); ANTH 101, 101(L)</td>
<td></td>
</tr>
</tbody>
</table>

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.

- 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.

**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.

<table>
<thead>
<tr>
<th>AREA 5</th>
<th>SOCIAL AND BEHAVIORAL SCIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>IP</td>
</tr>
<tr>
<td>POLS 102; HIST 117 OR 118</td>
<td></td>
</tr>
</tbody>
</table>

**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 updated transfer information or visit www.assist.org
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 CSUCl campus.
TRANSFERRING TO CALIFORNIA STATE UNIVERSITY (CSU)

Regular Transfer (as a Junior)
Students who have completed at least 56 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 49-50.

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 56 Units
If you wish to transfer to the CSU system with fewer than 56 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?


Visit www.csumentor.edu to find outreach, financial aid, and admissions information.
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 955, 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 requirement.
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 | C | IP | N |
|levance | min 9 units | complete | a | a | a |
| Choose one course from each of the three areas below. Each course from Area A must be completed with a "C" grade or better. |
| 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 | C | IP | N |
| minimum 9 units | complete | a | a | a |
| 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, 101, 206, 207 GEOG 101, 102 PHYS 100, 201, 221 Courses which do NOT include a laboratory: ASTR 101; CHEM 114 GEOG 101; CHEM 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, 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, 120, 132, 226, 227, 228, 231, 270 |
| Course from other college: |
### AREA C. ARTS, LITERATURE, PHILOSOPHY AND FOREIGN LANGUAGE

**Choose at least one course from the ARTS and one course from the HUMANITIES.**

#### C1 ARTS
- ART 101, 102, 104, 105, 106, 107, 108, 109, 112, 113, 114, 120, 122, 125, 150
- Dance: PE 103
- MUSC 100, 101, 102, 104, 115, 116, 117, 118, 131, 202, 204
- TA 101, 102, 107, 110

#### Course from other college:

#### C2 HUMANITIES
- Foreign Language: FREN 101, 102, 103, 104; GERM 101, 102, 103, 104; SPAN 101, 102, 103, 104
- PHIL 101, 108, 120, 121
- RLST 101, 105, 106, 110, 115
- SPCH 115, 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

**Choose courses from at least TWO different subject areas in AREA D.**

#### UNITED STATES HISTORY REQUIREMENT FOR CSU GRADUATION
- HIST 117 or 118

#### Course from other college:

#### UNITED STATES CONSTITUTION AND AMERICAN IDEALS REQUIREMENT FOR CSU GRADUATION
- POLS 102

#### ONE ADDITIONAL COURSE FROM AREA D

**Choose one additional course not used above from the following:**
- AJ 101
- ANTH 101, 102, 103, 105
- CHDV 146
- ECON 101, 102
- GEOG 101, 102
- HIST 103, 104, 115, 117, 118, 119, 120, 121, 124, 125, 127, 130, 131, 135, 150, 153, 155, 157
- POLS 101, 102, 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 115

#### 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

**Choose at least one course from the following:**
- ALDH 102*, 125
- 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:**

**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. Reps from UCR and CSUSB visit the Transfer Center regularly to discuss students’ transfer plans and to help students prepare guaranteed admissions contracts. Other reps from both public and private schools visit during the year as well. Ask in the Transfer Center for the current schedule.

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.*
<table>
<thead>
<tr>
<th>Course</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AJ</strong></td>
<td>101, 102, 103, 104, 123, 124, 126, 127, 130, 132, 133, 134, 135, 138, 140, 148, 149</td>
</tr>
<tr>
<td><strong>AGNR</strong></td>
<td>100, 101, 102, 120, 121, 122, 129, 130, 138, 140, 141, 148, 149, 150, 151, 152, 153, 154, 160, 161</td>
</tr>
<tr>
<td><strong>ALDH</strong></td>
<td>102, 125, 138, 148, 149, 141, 142</td>
</tr>
<tr>
<td><strong>ANTH</strong></td>
<td>101, 101L, 102, 103, 104, 105, 106, 107, 108, 109, 111, 114, 115, 120, 121, 122, 123, 124, 125, 126, 128, 130, 131, 132, 133, 138, 141, 142, 150, 151</td>
</tr>
<tr>
<td><strong>ASTR</strong></td>
<td>101</td>
</tr>
<tr>
<td><strong>AUTO</strong></td>
<td>138</td>
</tr>
<tr>
<td><strong>BESC</strong></td>
<td>138, 141, 142, 143, 148, 149</td>
</tr>
<tr>
<td><strong>BRE</strong></td>
<td>100, 101, 110, 111, 120, 121, 125, 126, 127, 138, 139, 140, 142, 148, 149</td>
</tr>
<tr>
<td><strong>CHEM</strong></td>
<td>100, 101, 114, 120, 128, 129, 130, 150, 202, 206, 207, 208, 255, 281, 282</td>
</tr>
<tr>
<td><strong>CTMT</strong></td>
<td>120, 121, 122, 123, 129</td>
</tr>
<tr>
<td><strong>ECON</strong></td>
<td>101, 102, 118, 128, 129</td>
</tr>
<tr>
<td><strong>EDUC</strong></td>
<td>101, 138</td>
</tr>
<tr>
<td><strong>ETEC</strong></td>
<td>106, 107</td>
</tr>
<tr>
<td><strong>ELCT</strong></td>
<td>110, 131, 132, 133, 134, 138, 148</td>
</tr>
</tbody>
</table>

**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.
<table>
<thead>
<tr>
<th>Course</th>
<th>Courses Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN</td>
<td>101, 102, 103, 104, 125, 128, 129</td>
</tr>
<tr>
<td>GEOG</td>
<td>101, 101L, 102, 103, 128</td>
</tr>
<tr>
<td>GEOL</td>
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**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.
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 101 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 VV's Chemistry 101 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.

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(CAN) California Articulation Numbering System (CAN)
VICTOR VALLEY COLLEGE COUNSELING CENTER
Accredited Nontraditional Degrees
of Interest to High Desert Residents

This is a listing of programs offering degrees that might be of interest to High Desert residents who prefer not to attend traditional universities due to transportation, work, family or other concerns. While all the programs listed here are accredited by the Western Association of Schools and Colleges or another regional accrediting body, each program has its own features and reputation. Remember that your degree will be on your resume for the rest of your life; find out how it will be perceived and accepted by those in your intended profession.

Costs are listed for some institutions; however, the final cost to you will depend on exactly what the school requires of you and how it treats your transfer units and any credit for prior learning, if granted. Financial aid is generally available at all the listed schools and works in the same way as at more traditional institutions.

We recommend you confer with each school that interests you, bringing with you copies of all transcripts of prior college and military experience, and see which offers you the best combination of relevance to your needs, quality, reputation, convenience, and final cost.

More information on these programs and others may be found in materials located in the VVC Transfer Center and the campus library. Also, visit www.petersons.com or, for graduate schools, www.gradschools.com.

Argosy University, Orange County
3745 W. Chapman Ave., Suite 100
Orange, CA 92868
(714) 940-0025 or www.argosyu.edu

- BA, MA, MBA, MAEd in many areas
- EdD in Leadership, Counseling, etc.
- DBA in several business areas
- PsyD in clinical psychology

Azusa Pacific University
Classes held on the VVC campus
(760) 952-1765 or (626) 815-5301
See Tables A & B in Section VII of this catalog

- Applied Management, Human Development
- Credit available for prior learning through military, work, and life experience
- 14-18 month curriculum -- classes meet one night per week, 6:00-10:00 p.m.
- Must have 60 transferable units, at least 5 years’ work experience, and be at least 25 years old

California Baptist College, Hesperia
(760) 244-6175

- BA in Liberal Studies (non-waiver program); BS in Business, Political Science

CSU Credential Net
(888) CSU-4499 or www.teach.calstate.edu

- California Teaching credentials for emergency permit teachers
- Courses use interactive web sites, video tapes, e-mail, phone conferences, face-to-face meetings

California State University, Chico
The Center for Regional and Continuing Education
California State University, Chico
Chico, CA 95929-0250
(530) 898-6105

- Several majors available, including BSN for RNs, Liberal Studies, Business, Social Sciences, etc.
- Courses originate on the Chico campus and are simultaneously broadcast to sites around the state, including VVC.

California State University, Dominguez Hills
Humanities External Degree Program
1000 East Victoria Street - SAC 2-2126
Carson, CA 90747
(310) 516-3743

- MA in Humanities
- No residency requirement; all coursework can be completed off-campus
California State University, Dominguez Hills
School of Management
1000 East Victoria Street
Carson, CA 90747
(310) 243-2714 or
www.som.csudh.edu/INTERNET.MBA

Interactive online MBA in 15 months. Seven core courses + 3 elective courses.

California Virtual University
www.virtualu.ca.gov

- New project creates an on-line catalog of distance education courses in California
- Offers links to distance education programs at California colleges and universities

Chapman University College
Victor Valley Branch Campus
Carriage Square (2 blocks north of Bear Valley Road)
12421 Hesperia Road, Suite C 5-6
Victorville, CA 92392
(760) 955-7555
See Table C in Section VII of this catalog.

- BA in Social Sciences, Criminal Justice, and other areas
- Teaching credentials and an M.Ed. in Education or Special Education
- Seventh oldest university in California

College Connection
Study at home using videotapes, the Internet, e-mail (College Connection is a kind of clearing house for accredited universities offering certain programs using non-traditional delivery routes)
(800) 777-MIND or e-mail: edcenter@jec.edu or www.jec.edu

- BA in Social Sciences (through Washington State University)
- BS in Animal Sciences (Kansas State University); Business Administration (Regis University); Hotel, Restaurant and Institutional Management (University of Delaware); Nursing (Cal State Dominguez Hills)
- Master’s degrees: Business (MBA); Public Administration (MPA); MA in Education
- Classes are videotaped and mailed to you, or you can watch them on Knowledge TV, you communicate with professors and other students via voicemail or e-mail
- The degree is the same as if you had earned it on campus
- Costs vary by program

Concord University School of Law
www.concord.kaplan.edu

Based in Los Angeles, this school offers the juris doctor (J.D.) degree entirely online. It is not accredited, although graduates can take the California bar exam and practice in California. Concord is owned by Kaplan Educational Centers, a subsidiary of the Washington Post Company.

- A minimum of 60 units required for admission
- The program takes about 4 years to complete, and can be started any time
- Total cost is “relatively inexpensive” for a law degree, according to an Associated Press story: about $17,000

Excelsior College
Formerly:
Regents College of the State University of New York
No campus, no courses. Their premise: “What a person knows is more important than how or where that knowledge was acquired.”
(888) 647-2388 or www.regents.edu

- BA and BS degrees offered in 17 different areas of study, including Business, Liberal Arts, Nursing (recommended for current RN’s or LVN’s but otherwise not recommended for initial RN work), and Technology
- Credit granted for prior coursework, evaluation of individual portfolios, CLEP testing, independent study, correspondence study, etc.

Graduate School of America, The
330 Second Avenue South, Suite 550
Minneapolis, MN 55401
(800) 987-1133 or www.tgsa.edu

Online courses, certificates and graduate degrees offered in the following areas:
- Psychology, Human Services, Education
- Business Administration
- Organization and Management
- Communications Technology

Grand Canyon University
(800) 339-0183 (ask for Denise)

- Master of Arts in teaching
- No on-campus classroom requirements
- Video-based
- Learn skills and techniques to become a more effective teacher
National University
(800) NAT-UNIV or www.nu.edu

Programs designed for working adults, in a large number of majors, offered on campuses throughout California (San Bernardino is the closest) and online.

New York Institute of Technology
Online Campus
(800) 222-NYIT or (516) 348-3325 or www.nyit.edu/

- BA/BS in Business Administration; Behavioral Sciences; Interdisciplinary Studies
- Prior learning recognized through transfer of credit, exams (CLEP, DANTES, etc), assessment of on-the-job experience, military or corporate training programs, portfolios, etc.
- Students interact with instructors and classmates via an electronic or virtual seminar (no prior computer conferencing experience is required, just a modem and access to the Internet)

Ohio University
Athens, Ohio
1-800-444-2420

- Non-resident degrees offered based on various combinations of credit by examination; courses from other institutions; certain courses from military, government or business entities.

Park University
Barstow Campus
(760)256-8811
www.park.edu/dist/Sites/Sitesweb/BARS/newsletter

- Bachelor’s degree programs in Criminal Justice Administration, Management, Human Resources, Computer Information Systems, Social Psychology
- Evening, weekend and internet classes available

Southern Illinois University
3423 Davis Avenue #H
Riverside, CA 92518
(909) 486-2872
See Table D in Section VII of this catalog.

- BS in Workforce Education and Development (Corporate Training)
- Classes to complete the major take two weekends per month for a year
- Up to 44 units possible credit for work experience and professional training (no charge assessed)
- Complete specific required general ed courses at VVC prior to transfer

Southern Methodist University
School of Engineering and Applied Science
(214) 768-1452 or www.seas.smu.edu

MS degrees available via videotape:
- Telecommunications
- Software Engineering
- Systems Engineering
- Engineering Management
- Manufacturing Systems Management
- Hazardous Waste Materials Management

Thomas A. Edison State College
Trenton, New Jersey
(609) 984-1150

- Non-resident degrees offered based on various combinations of credit by examination; courses from other institutions; certain courses from military, government or business entities.

Union Institute
Los Angeles Center: (800) 486-8328
San Diego Center: (800) 899-8501

- Highly individualized BA, BS, and PhD programs in the student’s area of interest
- Combines transfer credit, other prior learning, and on-site classes or tutorial agreements with local adjunct faculty that you identify and select
- Also available is their internet-based Distance program: (800) 486-3116

University Alliance
(888) 622-7344 - ask for Ronda Richardson or www.universityalliance.com

This is a consortium of accredited colleges and universities that have joined together to provide “distance learning” certificates, bachelor’s and master’s degree programs. Offerings include:

- Saint Leo College -- BA, BS -- Accounting, Computer Information Systems, Business Administration
- Regis University -- MBA
University of California Extension
Center for Media and Independent Learning
2000 Center Street, Suite 400
Berkeley, CA 94704
(510) 642-4124 or e-mail: askcmil@uclink4.berkeley.edu
www.cmil.unex.berkeley.edu/ or ASKCMIL@aol.com

- Provides university, professional, and high school courses online and by mail, e-mail, and fax.
- Does not offer degrees, but coursework may be applied to degree programs at other colleges.

University of Iowa
Iowa City, Iowa
1-800-272-6430

- Non-resident degrees offered based on various combinations of credit by examination; courses from other institutions; certain courses from military, government or business entities.

University of La Verne
Inland Empire Campus
10535 Foothill Boulevard, Suite 400
 Rancho Cucamonga, CA 91730
Contact Inge Maranto, (800) 494-4858, ext. 229
www.ulv.edu
See Table E in Section VII of this catalog

Classes held in Victorville

- Bachelor’s degrees offered in Business Administration, Liberal Studies (State approved CSET waiver program), Organizational Management, and Health Administration (Victor Valley College)
- Master’s Degrees offered in Business Administration (Victor Valley College) and Health Administration
- Bachelor’s degree credit granted for prior coursework, military, CLEP and DANTES. No minimum units required for admission.
- Class sessions are held once per week for ten weeks and on weekends.
- On-site advising and registration services in Victorville.

University of Nevada, Reno
Reno, Nevada
(702) 784-4652

- Non-resident degrees offered based on various combinations of credit by examination; courses from other institutions; certain courses from military, government of business entities.

University of New Haven
California Campus
Ben Clark Public Safety Training Center
3423 Davis Avenue
Riverside, CA 92518
Chris Miller, Coordinator (909) 776-9424
Dr. Tom Johnson, Dean (800) 342-5864, ext. 7472

- BS and MS degree programs in Fire Science
- Complete UNH’s core general education requirements OR complete IGETC before transfer.

University of Phoenix
301 East Vanderbilt Way
San Bernardino, CA 92408
(800) 800-9989 or www.uophx.edu

- BS and MA/MBA in Business with majors in Administration, Management and E-Business, BSIT, TED Program, Human Services
- BS and MN in Nursing
- The largest accredited private institution for business and management in the U.S.
- Courses are held once per week, 6:00-10:00 p.m., for five weeks
- Must be at least 23 years old and employed
- Credit possible for prior nonacademic learning; no specific number of units required to enter BS programs. Follow IGETC.
- Cost: $328/unit
- For online degrees, visit www.online.uophx.edu

University of Redlands, Whitehead College
(909) 335-4060 or www.redlands.edu

- Courses offered in Victorville
- Bachelors degrees in Liberal Studies, Environmental Studies, Business
- Masters in Business Administration, Education
Preparation for Transfer to Azusa Pacific University's Accelerated B.A. Degree in Human Development (CSET-waiver)

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 take teaching positions in the High Desert on an emergency permit or Intern credential, available if they are enrolled 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. You can also contact APU’s main campus at (626) 815-5301, or find them on the web at www.apu.edu.

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 VVC COURSES (or equivalents completed elsewhere)

- **English Composition**
  ENGL101

- **Composition/Speech**
  Choose One
  ENGL 104; SPCH 106, 109

- **Math**
  Choose One
  MATH 105, 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, 101, 202; GEOL 101, 102; PHYS 100, 221, 222

- **Bible Survey**
  No course accepted from VVC; contact APU
Table B

Preparation for Transfer to Azusa Pacific University's B.S. Degree in Organizational Leadership

This program allows students to transfer to APU's accelerated bachelor's degree program, which can be completed by attending classes one night per week for 14 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 6 of the areas below, and have 60 transferable units, are eligible to start with the next group.

**REQUIRED VVC COURSES**
(or equivalents completed elsewhere)

| English Composition          | ENGL101 |
| Composition/Speech           | ENGL 104; SPCH 106, 108, 109 |
| Fine Arts                    | ART 101, 102, 105, 106; MUSC 101, 100, 115, 116, 117; TA 101, 102 |
| History/Government           | HIST 117, 118; POLS 102 |
| Psychology/Sociology         | ANTH 102; SOC 101, 102, 103, 107; PSYC 101, 102, 103, 204, 110, 111, 213, 116, 130 |
| Literature                   | ENGL 102, 230, 231, 162, 232, 233, 240, 241, 245, 246 |
| Science with lab             | ANTH 101 + 101L*; BIOL 100, 104, 107, 109, 201, 202, 203, 211, 212, 221, 231, 232; CHEM 100, 101, 206, 207; GEOG 101 + 101L*; GEOL 101, 102, PHYS 100, 201, 202, 221 |
| Bible Survey                 | No course accepted from VVC; contact APU |

What courses will you take once you transfer?

**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 following majors: Criminal Justice, Liberal Studies (CSET-waiver), Organizational Leadership, Social Science, Sociology, and Psychology (see next page for program descriptions and preparation). They are currently developing B.S. programs in Computer Information Systems and Health Systems. Listed below are VVC courses that satisfy Chapman’s general education requirements. For more information, please contact Chapman directly, at (760) 955-7555. Note that while some courses may appear in more than one area, you may only use them in one. Since Chapman accepts up to 70 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.

I. BASIC SUBJECTS
Complete one course in each area

- **A:** Written Communication
  ENGL 101

- **B:** Writing about Literature
  ENGL 102

- **C:** Mathematics
  Choose One
  MATH 105, H105, 120, 132, 226, 227, 228, 231, 270

II. GENERAL EDUCATION
BREADTH REQUIREMENTS

A: Humanities
Complete 12 units in at least 3 areas

1. English & Foreign Languages
   ENGL 104, 116, 162, 220, 225, 230, 231, 235, 240, 241, 245, 246, 247; SPCH 115; TA 104, 116; FREN 101, 102, 103, 104; GERI 101, 102, 103, 104; SPAN 101, 102, 103, 104

2. Fine Arts

3. Philosophy
   PHIL 101, 108, 120, 121

4. Religion
   RLST 101, 105, 106, 110, 115

B: Natural Science
Complete 9 units in at least 2 areas
Note: Lab not required for Chapman

1. Life Science
   BIOL 100, 104, 107, 109, 114, 118, 201, 202, 203, 211, 212, 221, 231, 232; ANTH 101, 101L

2. Physical Sciences
   ASTR 101; BIOL 114, 118; CHEM 100, H100, 101, 114, 206, 207; GEOG 101, 101L; GEOL 101, 102, 103; OCEA 101; PSCI 101, 114, 115; PHYS 100, 201, 221

3. Applied Math/Computer Science
   CIS 101

C: Social Science
Complete 12 units in at least 3 areas

1. Psychology
   PSYC 101, 103, 105, 110, 111, 116, 121, 125, 130, 204, 213

2. Sociology
   SOC 101, 102, 103, 107

3. History
   HIST 103, 104, 115, 117, 118, 120, 121, 124, 125, 127, 130, 131, 135, 150, 153, 155, 157

4. Political Science
   POLS 101, 102, 103, 110, 112

5. Economics
   ECON 101, 102

6. Other Social Science Areas
   AJ 101; ANTH 101, 102, 103, 105; CHDV 146; GEOG 101, 102; RLST 105, 106, 110, 115; SPCH 115
**Table C, continued**

**Preparation for Various Majors at Chapman**

In addition to completing your General Education for transfer to Chapman (previous page), it is to your advantage to complete pre-major preparation at VVC before you transfer. These are the programs offered, and the courses you should try to complete at VVC before transfer. Contact Chapman directly (760 955-7555) for the most current information on these programs. Where possible, we suggest you use the pre-major prep courses indicated below to satisfy the GE requirements listed on the other side.

**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 Liberal Studies (Emphasis on K-6 Teaching)**

The Liberal Studies major exposes aspiring elementary school teachers to a comprehensive range of academic subjects and disciplines, including those subjects most commonly taught in California schools. The program allows for a personalized selection of emphasis areas to enhance individual career growth and/or to prepare students for teaching credentials or graduate studies (Chapman offers several such programs in the High Desert).

**VVC Preparation:** Complete the standard GE requirements (over).

**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 115, 106, 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 Social Sciences**

The Social Sciences major is designed both for the prospective teacher (grades 7-12) 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; 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.

**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. Chapman also offers the M.A. in Psychology, which provides the educational component for state licensure as a Marriage and Family Therapist. (If you wish to apply for licensure, the other requirements include 3200 hours of supervised clinical experience, and comprehensive written and oral exams.)

**VVC Preparation:** PSYC 101, MATH 120.
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 B.A. Degree in Liberal Studies (CSET-waiver)
Multiple Subject Preparation for Teaching K-8 (NEW PROGRAM)

ULV's Liberal Studies program was the first in California to be approved as a Multiple Subject Preparation Program under Senate Bill 2042. You can complete this program by attending classes at ULV's Victorville Campus. If you earn an overall GPA of 2.75 with a 3.0 GPA in the major, you will NOT be required take the CSET exam (previously known as the MSAT). Applicants must be 25 years old and have completed 32 semester units of transferable college credit, including English Composition I and II. Applicants under the age of 25 will be considered for admission if they have completed 32 units and have a cumulative GPA of 2.2. Take the following courses at VVC in preparation for transfer.

Note: These requirements are subject to change and are only applicable for students in the NEW ULV Liberal Studies Program. For further information, please contact Arely Rivas at (800) 695-4858 or (760) 843-0086.

<table>
<thead>
<tr>
<th>ENGLISH:</th>
<th>MOVEMENT AND SPORTS SCIENCE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition I Choose one ENGL 101 or ENGL H101</td>
<td>Health and Fitness Strategies PE 102/ALDH 102</td>
</tr>
<tr>
<td>English Composition II Choose one ENGL 104 or ENGL H104</td>
<td>Contemporary and Social Dance Choose one PEDA 151/ANTH 151, PEDA 174, 175, 274, or 275 (must be taken for a letter grade) Students planning to attend ULV's main campus, add: PEDA 150</td>
</tr>
<tr>
<td>Literature Choose one ENGL 102, H102, 162, 230, 231, 232, 233, 245 or 246</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SPEECH:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Speech</td>
<td></td>
</tr>
<tr>
<td>SPCH 109</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FINE ARTS:</th>
<th>SOCIAL SCIENCE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The History of Visual &amp; Performing Arts Take at ULV</td>
<td>Geography GEOG 102 Note - Students planning to attend ULV's main campus: Take Geog at ULV.</td>
</tr>
<tr>
<td></td>
<td>World Civilization I and II HIST 103 and HIST 104</td>
</tr>
<tr>
<td></td>
<td>U.S. History Choose one HIST 117 or HIST H117</td>
</tr>
<tr>
<td></td>
<td>California History HIST 115</td>
</tr>
<tr>
<td></td>
<td>American Government and Politics POLS 102 or POLS H102</td>
</tr>
<tr>
<td></td>
<td>Behavioral Science Choose one ANTH 102 or SOC 101 or SOC 102</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MATH AND SCIENCE:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Math Choose one MATH 105 or MATH H105</td>
<td></td>
</tr>
<tr>
<td>General Biology with Lab BIOL 100</td>
<td></td>
</tr>
<tr>
<td>Physical Science I CHEM 100 and PHYS 100</td>
<td></td>
</tr>
<tr>
<td>Physical Science II PSCI 101</td>
<td></td>
</tr>
</tbody>
</table>
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

Certificates
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 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJ 101 Introduction to Administration of Justice</td>
</tr>
<tr>
<td>AJ 102 Criminal Procedures</td>
</tr>
<tr>
<td>AJ 103 Criminal Law</td>
</tr>
<tr>
<td>AJ 104 Legal Aspects of Evidence</td>
</tr>
<tr>
<td>AJ 126 Traffic Control</td>
</tr>
<tr>
<td>AJ 127 Crime and Delinquency</td>
</tr>
<tr>
<td>AJ 133 Writing for Criminal Justice</td>
</tr>
<tr>
<td>AJ 74 Multicultural Issues in Public Safety</td>
</tr>
</tbody>
</table>

CORRECTIONAL SCIENCE CERTIFICATE
Requirements
15.0 units minimum
All of the following must be completed with a grade of “C” or better

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJ 91 Corrections Supervision and Control</td>
</tr>
<tr>
<td>AJ 103 Criminal Law</td>
</tr>
<tr>
<td>AJ 132 Introduction to Corrections</td>
</tr>
</tbody>
</table>

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

Faculty
Full Time
Ron Fields
David Bellomy

2003-2004 Victor Valley College Catalog
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 Forensic Anthropology 3.0
or AJ 53
BIOL 52 Forensic Entomology 3.0
or AJ 52
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 832.2 CERTIFICATE

Requirements
3.0 units minimum

Units
AJ 6 School Police Officer 3.0

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### 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:

<table>
<thead>
<tr>
<th>Units</th>
<th>AJ 103</th>
<th>Criminal Law</th>
<th>3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AJ 126</td>
<td>Traffic Control</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>AJ 133</td>
<td>Writing for Criminal Justice</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>AJ 140</td>
<td>Communication Skills for Interviewing and Interrogation</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>AJ 67</td>
<td>Field Evidence Technician</td>
<td>3.5</td>
</tr>
</tbody>
</table>

### PUBLIC SAFETY INTERNSHIP CERTIFICATE

**Requirements**

- **10 units minimum**

<table>
<thead>
<tr>
<th>Units</th>
<th>AJ 20</th>
<th>Public Safety Internship Academy I</th>
<th>5.0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AJ 21</td>
<td>Public Safety Internship Academy II</td>
<td>5.0</td>
</tr>
</tbody>
</table>

### 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.


### Career Opportunities

- Plant Breeders, Propagators and Growers
- Zoo, City, Country Club and Botanic Garden Horticulturists
- Nursery Technicians and Managers
Turf Grass Managers  
Farm, Ranch Hands and Managers  
Horticulture, Irrigation and Fertilizer Industry  
Sales Representatives  
Arborists and Tree Pruning Technicians  
Floral Design Technicians and Floral Shop Managers  
Landscape Architects and Designers  
Landscape Construction/Installation Contractors  
Landscape Maintenance Technicians  
Irrigation Specialists  
Water, Soils and Biotechnology Lab Technicians  
Water Use, Education and Conservation Technicians  
Natural Resource Research Technicians  
Environmental and Natural Resource Planner  
GIS Analysts  
Cartographic Technicians  
Park and Wildlife Managers  
Field Biologists  
Agriculture and Conservation Extension Officer  
Agricultural and Food Inspectors  
Agriculture and Natural Resource Educators

Faculty  
Full-time  
Neville Slade

Degrees and Certificates Awarded  
Associate in Science, Environmental Horticulture  
Environmental Field Studies Technician  
Equine Science Specialist Certificate  
Floral Design Certificate  
Horticulture and Landscape Technician Certificate  
Horticulture Specialist Certificate  
Landscape Specialist Certificate  
Landscape Irrigation Certificate  
Natural Resource Management Technician Certificate  
Water Resource Specialist

Certificate Programs

ENVIRONMENTAL FIELD STUDIES CERTIFICATE

Requirements  
13.0 units minimum  
All of the following must be completed:  

<table>
<thead>
<tr>
<th>Units</th>
<th>AGNR 74 Environmental Field Studies</th>
<th>9.0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AGNR 70 Environmental Science</td>
<td>4.0</td>
</tr>
</tbody>
</table>

EQUINE SCIENCE SPECIALIST CERTIFICATE

Requirements  
7 units minimum  
All of the following must be completed:  

<table>
<thead>
<tr>
<th>Units</th>
<th>AGNR 100 General Animal Science</th>
<th>3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AGNR 102 Equine Science</td>
<td>4.0</td>
</tr>
</tbody>
</table>

FLORAL DESIGN CERTIFICATE

The Floral Design Certificate prepares the student to work in the floral design industry.

Requirements  
14 units minimum  
All of the following must be completed:  

<table>
<thead>
<tr>
<th>Units</th>
<th>AGNR 121 Fundamentals of Environmental Horticulture</th>
<th>3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AGNR 160 Beginning Floral Design</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>AGNR 161 Floral Design II</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>AGNR 122 Plant Propagation</td>
<td>3.0</td>
</tr>
</tbody>
</table>

LANDSCAPE SPECIALIST CERTIFICATE

The Landscape Specialist Certificate prepares the student to design, install and maintain landscapes.

Requirements  
20.0 units minimum  
Group I - All of the following must be completed:  

<table>
<thead>
<tr>
<th>Units</th>
<th>AGNR 121 Fundamentals of Environmental Horticulture</th>
<th>3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AGNR 152 Landscape Irrigation</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>AGNR 150 Landscape Design</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>AGNR 154 Landscape and Nursery Management</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>AGNR 140 Plant Materials and Usage I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Group II - Two of the following must be completed:  

<table>
<thead>
<tr>
<th>Units</th>
<th>AGNR 151 Landscape Construction</th>
<th>3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AGNR 120 Pest Management in Environmental Horticulture</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>AGNR 153 Landscape Maintenance Fundamentals</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>AGNR 129 Water Efficient Landscaping</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>AGNR 141 Plant Materials Usage II</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>AGNR 122 Plant Propagation &amp; Production</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>AGNR 71 GIS in Natural Resources</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>AGNR 70 Environmental Science</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>CT 107 Technical Math</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>AGNR 131 Soil Science</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>AGNR 60 Horticulture Lab</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>SPCH 109 Public Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>BIOL 109 Field Biology</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>BIOL 104 General Botany</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>CT 131 Microcomputers in Construction</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>AGNR 138 Cooperative Education</td>
<td>2.0 or 3.0</td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGNR 152</td>
<td>Landscape Irrigation</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 140</td>
<td>Plant Materials and Usage I</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 129</td>
<td>Water Efficient Landscaping</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Group II - One of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGNR 120</td>
<td>Pest Management in Environmental Horticulture</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 151</td>
<td>Landscape Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 121</td>
<td>Fundamentals of Environmental Horticulture</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 122</td>
<td>Plant Propagation &amp; Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 150</td>
<td>Landscape Design</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 153</td>
<td>Landscape Maintenance Fundamentals</td>
<td>2.0</td>
</tr>
<tr>
<td>AGNR 70</td>
<td>Environmental Science</td>
<td>4.0</td>
</tr>
<tr>
<td>AGNR 71</td>
<td>GIS in Natural Resources</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 131</td>
<td>Soil Science</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 141</td>
<td>Plant Materials Usage II</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 60</td>
<td>Horticulture Lab</td>
<td>2.0, 3.0 or 4.0</td>
</tr>
<tr>
<td>AGNR 73</td>
<td>Water Science</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGNR 120</td>
<td>Pest Management in Environmental Horticulture</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 121</td>
<td>Fundamentals of Environmental Horticulture</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 122</td>
<td>Plant Propagation &amp; Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 150</td>
<td>Landscape Design</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 153</td>
<td>Landscape Maintenance Fundamentals</td>
<td>2.0</td>
</tr>
<tr>
<td>AGNR 70</td>
<td>Environmental Science</td>
<td>4.0</td>
</tr>
<tr>
<td>AGNR 71</td>
<td>GIS in Natural Resources</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 131</td>
<td>Soil Science</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 141</td>
<td>Plant Materials Usage II</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 60</td>
<td>Horticulture Lab</td>
<td>2.0, 3.0 or 4.0</td>
</tr>
<tr>
<td>AGNR 73</td>
<td>Water Science</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Group II - Two of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGNR 151</td>
<td>Landscape Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 160</td>
<td>Basic Floral Design</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 152</td>
<td>Landscape Irrigation</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 153</td>
<td>Landscape Maintenance Fundamentals</td>
<td>2.0</td>
</tr>
<tr>
<td>AGNR 150</td>
<td>Landscape Design</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 154</td>
<td>Landscape and Nursery Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 129</td>
<td>Water Efficient Landscaping</td>
<td>3.0</td>
</tr>
</tbody>
</table>

HORTICULTURE AND LANDSCAPE TECHNICIAN CERTIFICATE

Requirements
11.0 units minimum

Group I - All of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGNR 121</td>
<td>Fundamentals of Environmental Horticulture</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 122</td>
<td>Plant Propagation &amp; Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 140</td>
<td>Plant Materials and Usage I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Group II - One of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGNR 151</td>
<td>Landscape Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 120</td>
<td>Pest Management in Environmental Horticulture</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 122</td>
<td>Plant Propagation &amp; Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 140</td>
<td>Plant Materials and Usage I</td>
<td>3.0</td>
</tr>
<tr>
<td>AGNR 129</td>
<td>Water Efficient Landscaping</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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, & San Luis Obispo, 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

| Units | ALDH 90A Certified Phlebotomy Technician IA | 3.0 |

**CERTIFIED PHLEBOTOMY TECHNICIAN 1B CERTIFICATE**

Requirements

| Units | ALDH 90B Certified Phlebotomy Technician IB | 2.5 |

**CERTIFIED PHLEBOTOMY TECHNICIAN 1C CERTIFICATE**

Requirements

| 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

| Units | ALDH 70 Nursing Assistant | 4.5 |
| Units | ALDH 78 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.

**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:

- 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

**Certificate Program**
No certificates awarded.

**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

Athletic offerings include football, softball, men’s and women’s tennis, women’s volleyball, men’s and women’s basketball, wrestling, golf, and women’s soccer.

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 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 Director of Athletics regarding eligibility matters. All varsity athletic classes meet ten laboratory hours per week for 2 units. CSU, UC (UC credit limitation). For course descriptions, see Section IX of this catalog.

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

Faculty
Full time
Frank Foster
Richard Ripley
Brent Wood

Degrees and Certificates Awarded
Associate in Science, Automotive Technology
Automotive Specialist I Certificate

Automotive Technology

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 Specialist I Certificate

2003-2004 Victor Valley College Catalog
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:

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:

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:

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
8.0 units minimum
All of the following must be completed with a grade of "C" or better:

Units
AUTO 50 Introduction to Automotive Technology 4.0
AUTO 77 Automotive Service Writing and Shop Manager 2.0
AUTO 77L Automotive Service Writing and Shop Manager Lab 2.0

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 units minimum
All of the following must be completed with a grade of "C" or better:

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 units minimum
All of the following must be completed with a grade of "C" or better:

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 units minimum
(Successful completion of Specialist I and II)
All of the following must be completed:

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 54 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:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.0</td>
<td>AUTO 55 Manual Transmission Overhaul</td>
</tr>
<tr>
<td>2.0</td>
<td>AUTO 56A Electronic Computer Transmission Controls</td>
</tr>
<tr>
<td>5.0</td>
<td>AUTO 56 Automatic Transmission Overhaul</td>
</tr>
</tbody>
</table>

### AUTOMOTIVE WINDOW TINTING TECHNICIAN CERTIFICATE

Requirements
8.0 units minimum
All of the following must be completed with a grade of "C" or better:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>AUTO 94A Automotive Window Tinting I</td>
</tr>
<tr>
<td>4.0</td>
<td>AUTO 94B Automotive Window Tinting II</td>
</tr>
</tbody>
</table>

### BASIC INSPECTION AREA SMOG TECHNICIAN CERTIFICATE

Requirements
14 units minimum
All of the following must be completed with a grade of "C" or better:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.0</td>
<td>AUTO 80 Automotive Computers, Electronics, and Electrical Systems</td>
</tr>
<tr>
<td>2.0</td>
<td>AUTO 83B Basic Area California Clean Car Course</td>
</tr>
</tbody>
</table>

### COLLISION REPAIR TECHNICIAN CERTIFICATE

Requirements
14.0 units minimum
All of the following must be completed with a grade of "C" or better:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>AUTO 91A Auto Body Repair I</td>
</tr>
<tr>
<td>5.0</td>
<td>AUTO 91B Auto Body Repair II</td>
</tr>
<tr>
<td>1.0</td>
<td>AUTO 92 Auto body Damage Estimating I</td>
</tr>
<tr>
<td>1.0</td>
<td>AUTO 91L Automotive Auto Body Laboratory</td>
</tr>
<tr>
<td>1.0</td>
<td>AUTO 91L Automotive Auto Body Laboratory</td>
</tr>
<tr>
<td>2.0</td>
<td>WELD 58A Gas Metal Arc Welding</td>
</tr>
</tbody>
</table>

*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:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>AUTO 53 Cylinder Block Specialist</td>
</tr>
<tr>
<td>4.0</td>
<td>AUTO 52 Cylinder Head Specialist</td>
</tr>
<tr>
<td>4.0</td>
<td>AUTO 54 Cylinder Assembly Specialist</td>
</tr>
</tbody>
</table>

### 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:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.0</td>
<td>AUTO 80 Automotive Computers, Electronics and Electrical Systems</td>
</tr>
<tr>
<td>1.5</td>
<td>AUTO 84 Advanced California Clean Air Car Course</td>
</tr>
</tbody>
</table>

### HEAVY DUTY DIESEL TRUCK LUBRICATION AND INSPECTION SPECIALIST CERTIFICATE

Requirements
2.0 units minimum
All of the following must be completed with a grade of "C" or better:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0</td>
<td>AUTO 65 Heavy Duty Diesel Truck Lubrication and Inspection Technician</td>
</tr>
</tbody>
</table>

### 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:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>AUTO 91A Auto Body Repair I</td>
</tr>
<tr>
<td>1.0</td>
<td>AUTO 85B Automotive Electrical/Electronic Systems</td>
</tr>
<tr>
<td>3.0</td>
<td>CTMF 126A Woodworking</td>
</tr>
<tr>
<td>4.0</td>
<td>CT 122A Heating and Air Conditioning</td>
</tr>
<tr>
<td>3.0</td>
<td>CTMT 122 Electrical Repair</td>
</tr>
<tr>
<td>2.0</td>
<td>WELD 50 Introduction to Welding</td>
</tr>
</tbody>
</table>

### SMALL ENGINE REPAIR SPECIALIST CERTIFICATE

Requirements
3.0 units minimum
All of the following must be completed with a grade of "C" or better:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>AUTO 70 Small Engine Repair</td>
</tr>
</tbody>
</table>
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 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 units minimum

**Group I - All of the following must be completed:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 100 or 107</td>
<td>General or Human Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL 70</td>
<td>Introduction to Biotechnology</td>
<td>5.0</td>
</tr>
<tr>
<td>BIOL 71</td>
<td>Introduction to Laboratory Technique</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**AND**

**Group II - Complete 3.0 units from courses below:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 72/ CHEM 72</td>
<td>Biomolecular Science</td>
<td>3.0</td>
</tr>
<tr>
<td>BIOL 52</td>
<td>Forensic Entomology</td>
<td>3.0</td>
</tr>
</tbody>
</table>
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

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 101, 102, 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 education. 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
Management Certificate
Bookkeeping I 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 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BADM 106</td>
<td>2.0</td>
</tr>
<tr>
<td>BADM 107</td>
<td>2.0</td>
</tr>
<tr>
<td>BADM 100</td>
<td>3.0</td>
</tr>
<tr>
<td>BADM 142</td>
<td>3.0</td>
</tr>
<tr>
<td>BADM 50</td>
<td>3.0</td>
</tr>
<tr>
<td>BADM 51</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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 units minimum
Group I - All of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BADM 101</td>
<td>4.0</td>
</tr>
<tr>
<td>OR BADM 103</td>
<td>3.0</td>
</tr>
<tr>
<td>BADM 110</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Group II - One of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BADM 112</td>
<td>3.0</td>
</tr>
<tr>
<td>BADM 122</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Group III - One of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 101</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON 102</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Group IV - One of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BADM 109</td>
<td>3.0</td>
</tr>
<tr>
<td>BADM 111</td>
<td>3.0</td>
</tr>
<tr>
<td>BADM 116</td>
<td>3.0</td>
</tr>
<tr>
<td>BADM 52</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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 101+102, 103 or 104, 117, ECON 101, 102, CIS 101, MATH 120
One course from the following: MATH 105, H105, 116, 226
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 units minimum (Group I: 23 units, Group II: 6 units)

Group I - All of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BET 103A</td>
<td>Beginning Word Processing/Typing</td>
<td>3.0</td>
</tr>
<tr>
<td>BET 103B</td>
<td>Beginning Word Processing/Typing</td>
<td>3.0</td>
</tr>
<tr>
<td>BET 103C</td>
<td>Beginning Word Processing/Typing</td>
<td>3.0</td>
</tr>
</tbody>
</table>

3 units must be chosen from one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BET 65</td>
<td>Speedwriting</td>
<td>3.0</td>
</tr>
<tr>
<td>BET 66</td>
<td>Speedwriting\Shorthand Development and Review</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Group II - 6 units of the following must be completed: 6.0

3 units may be chosen from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BET 107A</td>
<td>Internet Level I</td>
<td>1.0</td>
</tr>
<tr>
<td>BET 123F</td>
<td>Machine Transcription</td>
<td>1.0</td>
</tr>
<tr>
<td>BET 136</td>
<td>Career Applications for Word Processing</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BET 107A</td>
<td>Internet Level I</td>
<td>1.0</td>
</tr>
<tr>
<td>BET 123F</td>
<td>Machine Transcription</td>
<td>1.0</td>
</tr>
<tr>
<td>BET 136</td>
<td>Career Applications for Word Processing</td>
<td>3.0</td>
</tr>
</tbody>
</table>

COMPUTER SYSTEMS I CERTIFICATE

This curriculum is designed to prepare students for entry-level word processing positions.

Requirements:
7 units minimum (Group I: 3 units, Group II: 4 units)

Group I - 3 units from one of the following must be completed: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BET 107A</td>
<td>Internet Level I</td>
<td>1.0</td>
</tr>
<tr>
<td>BET 123F</td>
<td>Machine Transcription</td>
<td>1.0</td>
</tr>
<tr>
<td>BET 136</td>
<td>Career Applications for Word Processing</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Group II - 4 units of the following must be completed: 4.0

3 units may be chosen from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BET 107A</td>
<td>Internet Level I</td>
<td>1.0</td>
</tr>
<tr>
<td>BET 123F</td>
<td>Machine Transcription</td>
<td>1.0</td>
</tr>
<tr>
<td>BET 136</td>
<td>Career Applications for Word Processing</td>
<td>3.0</td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>BET 107A Internet Level I</td>
</tr>
<tr>
<td>2.0</td>
<td>BET 112A,B Spreadsheet: Excel for Windows</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 136 Career Applications for Word Processing</td>
</tr>
<tr>
<td>1.0</td>
<td>BET 141A Operating System: Windows</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 103A, B, C Beginning Word Processing/Typing: WordPerfect for Windows</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 104A, B, C Beginning Word Processing/Typing: Word for Windows</td>
</tr>
<tr>
<td>1.0</td>
<td>BET 118A DataBase: Access</td>
</tr>
<tr>
<td>3.0</td>
<td>CIS 280 Fundamentals of Database Management Systems</td>
</tr>
</tbody>
</table>

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 units minimum
Group I - All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>BET 136 Career Applications for Word Processing</td>
</tr>
<tr>
<td>1.0</td>
<td>BET 68A Proofreading</td>
</tr>
<tr>
<td>2.0</td>
<td>BET 74 Office Machine Calculations</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 103A,B,C Beginning Word Processing/Typing: WordPerfect for Windows</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 104A,B,C Beginning Word Processing/Typing: Word for Windows</td>
</tr>
</tbody>
</table>

Group II - 7 units of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>BET 107A Internet Level I</td>
</tr>
<tr>
<td>1.0</td>
<td>BET 123T Machine Transcription</td>
</tr>
<tr>
<td>1.0</td>
<td>BET 134 Condensed Word Processing</td>
</tr>
<tr>
<td>2.0</td>
<td>BET 135 Desktop Publishing: PageMaker</td>
</tr>
<tr>
<td>1.0</td>
<td>BET 141A Operating System: Windows</td>
</tr>
</tbody>
</table>

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 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>BADM 117 Legal Environment of Business</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 123L Machine Transcription-Legal</td>
</tr>
<tr>
<td>2.0</td>
<td>BET 124 Records Management</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 136 Career Applications for Word Processing</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 141A Operating System: Windows</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 142 Electronic Office Procedures and Administration</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 74 Office Machine Calculations</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 103A,B,C Beginning Word Processing/Typing: WordPerfect for Windows</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 104A,B,C Beginning Word Processing/Typing: Word for Windows</td>
</tr>
<tr>
<td>1.0</td>
<td>BET 143 Business English</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 65 Speedwriting</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 66 Speedwriting/Shorthand Development and Review</td>
</tr>
</tbody>
</table>

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 units minimum

All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>BET 123M</td>
<td>Machine Transcription-Medical</td>
</tr>
<tr>
<td>2.0</td>
<td>BET 124</td>
<td>Records Management</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 136</td>
<td>Career Applications for Word Processing</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 141A</td>
<td>Operating System: Windows</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 142</td>
<td>Electronic Office Procedures and Administration</td>
</tr>
<tr>
<td>3.0</td>
<td>ALDH 139</td>
<td>Medical Terminology</td>
</tr>
<tr>
<td>3.0</td>
<td>ALDH 80</td>
<td>Pharmacology</td>
</tr>
<tr>
<td>3.0</td>
<td>ALDH 81</td>
<td>Medical Insurance</td>
</tr>
<tr>
<td>3.0</td>
<td>ALDH 82</td>
<td>Medical Office Procedures</td>
</tr>
</tbody>
</table>

3 units must be chosen from one of the following:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>BET 103A,B,C</td>
<td>Beginning Word Processing/Typing: WordPerfect for Windows</td>
</tr>
<tr>
<td></td>
<td>BET 104A,B,C</td>
<td>Beginning Word Processing/Typing: Word for Windows</td>
</tr>
</tbody>
</table>

3 units must be chosen from one of the following:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>BET 143</td>
<td>Business English</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 68</td>
<td>Proofreading A/B/C (1.0-3.0)</td>
</tr>
</tbody>
</table>

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 units minimum (Group I: 5 units, Group II: 6 units)

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.0</td>
<td>BET 124</td>
<td>Records Management</td>
</tr>
<tr>
<td></td>
<td>BET 136</td>
<td>Career Applications for Word Processing</td>
</tr>
</tbody>
</table>

3 units must be chosen from one of the following:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>BET 103A,B,C</td>
<td>Beginning Word Processing/Typing: WordPerfect for Windows</td>
</tr>
<tr>
<td></td>
<td>BET 104A,B,C</td>
<td>Beginning Word Processing/Typing: Word for Windows</td>
</tr>
</tbody>
</table>

Group II - 6 units of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.0</td>
<td>BET 107A</td>
<td>Internet Level I (1.0)</td>
</tr>
<tr>
<td></td>
<td>BET 123T</td>
<td>Machine Transcription (1.0)</td>
</tr>
<tr>
<td></td>
<td>BET 142</td>
<td>Electronic Office Procedures and Administration</td>
</tr>
<tr>
<td></td>
<td>BET 74</td>
<td>Office Machine Calculations (2.0)</td>
</tr>
</tbody>
</table>

3 units may be chosen from one of the following:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BADM 144</td>
<td>Business Communications (3.0)</td>
</tr>
<tr>
<td></td>
<td>BET 145</td>
<td>Communications for Business (3.0)</td>
</tr>
</tbody>
</table>

3 units may be chosen from one of the following:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BET 65</td>
<td>Speedwriting (3.0)</td>
</tr>
<tr>
<td></td>
<td>BET 66</td>
<td>Speedwriting/Shorthand Development and Review (3.0)</td>
</tr>
</tbody>
</table>

SPREADSHEET PROCESSOR CERTIFICATE

This curriculum is designed to prepare students for entry-level bookkeeping positions.

Requirements

2 units minimum

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0</td>
<td>BET 112A, B</td>
<td>Spreadsheet: Excel for Windows</td>
</tr>
</tbody>
</table>

WORD PROCESSOR CERTIFICATE

This curriculum is designed to prepare students for entry-level secretarial positions.

Requirements

3 units minimum

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>BET 103A,B,C</td>
<td>Beginning Word Processing/Typing: WordPerfect for Windows</td>
</tr>
<tr>
<td></td>
<td>BET 104A,B,C</td>
<td>Beginning Word Processing/Typing: Word for Windows</td>
</tr>
</tbody>
</table>

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

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

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 units minimum
Group I - All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>BRE 100 Real Estate Principles</td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td>BRE 110 Legal Aspects of Real Estate I</td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td>BRE 120 Real Estate Appraisal</td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td>BRE 126 Real Estate Finance</td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td>BRE 142 Real Estate Marketing</td>
<td></td>
</tr>
</tbody>
</table>

Group II - Either one of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>BRE 101 Real Estate Practices</td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td>BADM 103 Financial Accounting</td>
<td></td>
</tr>
</tbody>
</table>

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 units minimum
Group I - All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>BRE 100 Real Estate Principles</td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td>BRE 101 Real Estate Practices</td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td>BRE 110 Legal Aspects of Real Estate I</td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td>BRE 120 Real Estate Appraisal</td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td>BRE 126 Real Estate Finance</td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td>BRE 129 Real Estate Economics</td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>BADM 101 Elementary Accounting</td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td>BADM 103 Financial Accounting</td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td>BRE 142 Real Estate Marketing</td>
<td></td>
</tr>
</tbody>
</table>

Faculty
Full Time
Chris Grover

2003-2004 Victor Valley College Catalog
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 121 Advanced Real Estate Appraisal 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

**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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRE 100</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**BUSINESS REAL ESTATE APPRENTICE CERTIFICATE**

Requirements
9.0 units minimum

Group I - The following must be completed with a grade of “C” or better:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRE 100</td>
<td>3.0</td>
</tr>
<tr>
<td>BRE 101</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Group II - Any one of the following must be completed with a grade of “C” or better:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRE 110</td>
<td>3.0</td>
</tr>
<tr>
<td>BRE 120</td>
<td>3.0</td>
</tr>
<tr>
<td>BRE 126</td>
<td>3.0</td>
</tr>
<tr>
<td>BRE 127</td>
<td>3.0</td>
</tr>
<tr>
<td>BRE 129</td>
<td>3.0</td>
</tr>
<tr>
<td>BRE 140</td>
<td>3.0</td>
</tr>
<tr>
<td>BESC 141</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**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 units minimum

Group I - All of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRE 100</td>
<td>3.0</td>
</tr>
<tr>
<td>BRE 101</td>
<td>3.0</td>
</tr>
<tr>
<td>BRE 110</td>
<td>3.0</td>
</tr>
<tr>
<td>BESC 141</td>
<td>3.0</td>
</tr>
<tr>
<td>BESC 142</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Group II - Any two of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BESC 143</td>
<td>3.0</td>
</tr>
<tr>
<td>BET 104</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**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 units minimum

Group I - All of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRE 100</td>
<td>3.0</td>
</tr>
<tr>
<td>BRE 120A</td>
<td>3.0</td>
</tr>
<tr>
<td>BRE 140</td>
<td>3.0</td>
</tr>
<tr>
<td>BADM 103</td>
<td>3.0</td>
</tr>
<tr>
<td>BADM 110</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Group II - Any two of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRE 101</td>
<td>3.0</td>
</tr>
<tr>
<td>BRE 127</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**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 units minimum

Group I - All of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRE 100</td>
<td>3.0</td>
</tr>
<tr>
<td>BRE 120A</td>
<td>3.0</td>
</tr>
<tr>
<td>BRE 121</td>
<td>3.0</td>
</tr>
<tr>
<td>BRE 125</td>
<td>3.0</td>
</tr>
<tr>
<td>BRE 129</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Group II - Any two of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRE 126</td>
<td>3.0</td>
</tr>
<tr>
<td>BESC 141</td>
<td>3.0</td>
</tr>
<tr>
<td>BET 104</td>
<td>3.0</td>
</tr>
</tbody>
</table>
REAL ESTATE ESCROW CERTIFICATE

Requirements

24 units minimum

Group I - All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BESC 141</td>
<td>Escrow I, Principles (Basic)</td>
</tr>
<tr>
<td>BESC 142</td>
<td>Escrow II, Principles (Advanced)</td>
</tr>
<tr>
<td>BADM 117</td>
<td>Legal Environment of Business</td>
</tr>
<tr>
<td>BRE 100</td>
<td>Real Estate Principles</td>
</tr>
<tr>
<td>BRE 110</td>
<td>Legal Aspects of Real Estate I</td>
</tr>
<tr>
<td>BRE 126</td>
<td>Real Estate Finance</td>
</tr>
</tbody>
</table>

Group II - Any two of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BADM 101</td>
<td>Elementary Accounting</td>
</tr>
<tr>
<td>BADM 103</td>
<td>Financial Accounting</td>
</tr>
<tr>
<td>BADM 109</td>
<td>Human Resource Management</td>
</tr>
<tr>
<td>BADM 116</td>
<td>Human Relations in Business</td>
</tr>
<tr>
<td>BADM 142</td>
<td>Business Mathematics</td>
</tr>
<tr>
<td>BADM 144</td>
<td>Business Communications</td>
</tr>
<tr>
<td>BESC 143</td>
<td>Escrow III, Case Problems</td>
</tr>
<tr>
<td>BRE 101</td>
<td>Real Estate Practices</td>
</tr>
<tr>
<td>BRE 120</td>
<td>Real Estate Appraisal</td>
</tr>
<tr>
<td>BRE 125</td>
<td>Taxes and Real Estate Investment</td>
</tr>
</tbody>
</table>

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 units minimum

Group I - All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRE 100</td>
<td>Real Estate Principles</td>
</tr>
<tr>
<td>BRE 129</td>
<td>Real Estate Economics</td>
</tr>
<tr>
<td>BRE 142</td>
<td>Real Estate Marketing</td>
</tr>
<tr>
<td>BADM 112</td>
<td>Introduction to Marketing</td>
</tr>
<tr>
<td>BADM 114</td>
<td>Sales</td>
</tr>
<tr>
<td>BADM 116</td>
<td>Human Relations in Business</td>
</tr>
</tbody>
</table>

Group II - Any two of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRE 125</td>
<td>Taxes and Real Estate Investment</td>
</tr>
<tr>
<td>BRE 126</td>
<td>Real Estate Finance</td>
</tr>
<tr>
<td>BADM 144</td>
<td>Business Communications</td>
</tr>
</tbody>
</table>

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 units minimum

Group I - All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRE 100</td>
<td>Real Estate Principles</td>
</tr>
<tr>
<td>BRE 101</td>
<td>Real Estate Practices</td>
</tr>
<tr>
<td>BRE 110</td>
<td>Legal Aspects of Real Estate I</td>
</tr>
<tr>
<td>BESC 141</td>
<td>Escrow I</td>
</tr>
<tr>
<td>BET 65</td>
<td>Speedwriting</td>
</tr>
</tbody>
</table>

Group II - Any two of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRE 127</td>
<td>Real Estate Office Administration</td>
</tr>
<tr>
<td>BET 104</td>
<td>Beginning Word Processing/Typing: Word for Windows A/B/C</td>
</tr>
<tr>
<td>BET 112</td>
<td>Spreadsheet: Excel for Windows A/B/C</td>
</tr>
</tbody>
</table>

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 101, 102, 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 101, 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 101, 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 101, 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 Thay
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 8: 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 Per-
mits 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:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>CHDV 106 Child, Family, and Community</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 146 Child Growth and Development</td>
</tr>
</tbody>
</table>

Group II - Choose 6 units from the following Program/Curriculum courses:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>CHDV 127A* Directed Teaching in Children’s Program I</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 127B* Directed Teaching in Children’s Program II</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 132 CHDV 133 CHDV 143 CHDV 144</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 145</td>
</tr>
</tbody>
</table>

*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.

Requirements

20 units minimum

All of the following must be completed with a grade of “C” or better:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>CHDV 106 Child, Family, and Community</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 146 Child Growth and Development</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 127A Directed Teaching in Children’s Program I</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 127B Directed Teaching in Children’s Program II</td>
</tr>
<tr>
<td>3.0</td>
<td>ENGL 50 Writing Fundamentals</td>
</tr>
<tr>
<td>3.0</td>
<td>SPCH 106 Human Communication</td>
</tr>
<tr>
<td></td>
<td>OR</td>
</tr>
<tr>
<td>3.0</td>
<td>SPCH 108* Group Discussion</td>
</tr>
</tbody>
</table>

All course work must be completed with a “C” or better.

*Recommended for students transferring to a four-year college or university.

PRINCIPLES OF EARLY CHILDHOOD EDUCATION CERTIFICATE

LEVEL II: TEACHER

(PRE SCHOOL)

Title 8: 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:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>CHDV 142 Health/Safety and Nutrition</td>
</tr>
<tr>
<td>3.0</td>
<td>ALDH 102/ Contemporary Problems in Personal and Community Health</td>
</tr>
<tr>
<td>4.0</td>
<td>BIOL 100* General Biology</td>
</tr>
<tr>
<td>3.0</td>
<td>SPAN 125 Beginners Conversational Spanish</td>
</tr>
<tr>
<td>5.0</td>
<td>SPAN 101 Elementary Spanish</td>
</tr>
<tr>
<td>3.0</td>
<td>SOC 101 Introduction to Sociology</td>
</tr>
<tr>
<td>3.0</td>
<td>PSYC 108 Identifying and Helping Survivors of Dysfunctional Families</td>
</tr>
<tr>
<td></td>
<td>OR</td>
</tr>
<tr>
<td>3.0</td>
<td>PSYC 110* Developmental Psychology</td>
</tr>
</tbody>
</table>

Group II - Choose 11 units from the following:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>CHDV 110 Introduction to Childhood Education</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 111 Infant and Toddler Caregiving</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 115 Family Day Care Provider</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 132 Montessori Methods of Education</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 133 Art Experiences for Young Children</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 134 Language Experiences for Young Children</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 137 The Child with Special Needs</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 141 The Learning Child-The Middle Years</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 143 Introduction to the High/Scope Curriculum</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 144 Math and Science Experiences for Young Children</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 145 Music and Movement Experiences for Young Children</td>
</tr>
</tbody>
</table>

All course work must be completed with a “C” or better.

*Recommended for students transferring to a four-year college or university.

PRINCIPLES OF EARLY CHILDHOOD EDUCATION CERTIFICATE

LEVEL III: SUPERVISOR

Title 8: 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 (50 days of 3+ hours per day within 2 years) plus the following courses is also required for Site Supervisor certification.

Completion of Level III: Site Supervisor certificate requirements plus the following courses:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>CHDV 142 Health/Safety and Nutrition</td>
</tr>
<tr>
<td>3.0</td>
<td>ALDH 102/ Contemporary Problems in Personal and Community Health</td>
</tr>
<tr>
<td>4.0</td>
<td>BIOL 100* General Biology</td>
</tr>
<tr>
<td>3.0</td>
<td>SPAN 125 Beginners Conversational Spanish</td>
</tr>
<tr>
<td>5.0</td>
<td>SPAN 101 Elementary Spanish</td>
</tr>
<tr>
<td>3.0</td>
<td>SOC 101 Introduction to Sociology</td>
</tr>
<tr>
<td>3.0</td>
<td>PSYC 108 Identifying and Helping Survivors of Dysfunctional Families</td>
</tr>
<tr>
<td></td>
<td>OR</td>
</tr>
<tr>
<td>3.0</td>
<td>PSYC 110* Developmental Psychology</td>
</tr>
</tbody>
</table>

Group II - Choose 11 units from the following:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>CHDV 110 Introduction to Childhood Education</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 111 Infant and Toddler Caregiving</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 115 Family Day Care Provider</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 132 Montessori Methods of Education</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 133 Art Experiences for Young Children</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 134 Language Experiences for Young Children</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 137 The Child with Special Needs</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 141 The Learning Child-The Middle Years</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 143 Introduction to the High/Scope Curriculum</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 144 Math and Science Experiences for Young Children</td>
</tr>
<tr>
<td>3.0</td>
<td>CHDV 145 Music and Movement Experiences for Young Children</td>
</tr>
</tbody>
</table>
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

Child Development Track II (to pursue an elementary school teaching credential):
Please see Table 2 under “Education” in this section for a complete listing of classes required.

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

The Computer Information Systems (CIS) department provides training for those persons who plan to work within a techni
cal, computer-centered environment. Because of the wide
spread use of computers in our society, employment opportu
nities are found in a multitude of different environments such as general business, communications industries, manufactur
ing, environmental engineering, education, medical technol
ogy, 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
All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>CIS 101</td>
<td>Computer Literacy</td>
</tr>
<tr>
<td>2.5</td>
<td>CIS 252</td>
<td>Novell NetWare 6 Advanced Administration</td>
</tr>
<tr>
<td>2.5</td>
<td>CIS 67</td>
<td>Fundamentals of Networking</td>
</tr>
<tr>
<td>2.5</td>
<td>CIS 72</td>
<td>Novell NetWare 6 Basic Administration</td>
</tr>
<tr>
<td>2.5</td>
<td>CIS 77</td>
<td>NetWare Service and Support</td>
</tr>
<tr>
<td>2.5</td>
<td>CIS 79</td>
<td>NDS Design and Implementation</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>CIS 23</td>
<td>Introduction to Operating Systems:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UNIX</td>
</tr>
<tr>
<td>2.0</td>
<td>CIS 24</td>
<td>Fundamentals of Data Communication</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Windows XP For Power Users</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 240A</td>
<td>Windows 2000 Professional</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Intro to Microsoft Windows 2000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Server Administration</td>
</tr>
<tr>
<td>1.5</td>
<td>CIS 72</td>
<td>Novell NetWare 6 Basic Administration</td>
</tr>
<tr>
<td></td>
<td>&amp; CIS 252</td>
<td>Novell 6 Advanced Administration</td>
</tr>
<tr>
<td>2.0</td>
<td>CIS 261</td>
<td>UNIX System Administration A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UNIX System Administration B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Computer Ethics</td>
</tr>
<tr>
<td>2.0</td>
<td>CIS 67</td>
<td>Fundamentals of Networking</td>
</tr>
</tbody>
</table>

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 units minimum

All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>CIS 101</td>
<td>Computer Literacy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OR</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 103</td>
<td>Foundations of Computer Technology</td>
</tr>
<tr>
<td>3.0</td>
<td>CIS 205</td>
<td>Introduction to Systems Analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OR</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 201</td>
<td>C++ Module A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OR</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 202</td>
<td>C++ Module B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OR</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 210</td>
<td>Visual BASIC Programming</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OR</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 206A</td>
<td>Java A</td>
</tr>
<tr>
<td></td>
<td>&amp; CIS 206B</td>
<td>Java B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OR</td>
</tr>
<tr>
<td>2.0</td>
<td>CIS 50</td>
<td>Computer Ethics</td>
</tr>
</tbody>
</table>
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 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>CIS 200 Object-oriented Software Design</td>
</tr>
<tr>
<td>3.0</td>
<td>CIS 108 Assembly Language Programming</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 203 C++ Module C</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 211A/B/C Advanced VB Programming A or B or C</td>
</tr>
<tr>
<td>3.0</td>
<td>CIS 206A Java A</td>
</tr>
<tr>
<td>2.0</td>
<td>CIS 50 Computer Ethics</td>
</tr>
<tr>
<td>3.0</td>
<td>CIS 64 Computer Mathematics</td>
</tr>
<tr>
<td>3.0</td>
<td>ENGL 112 Technical Writing</td>
</tr>
<tr>
<td>3.0</td>
<td>ENGL 112 Technical Writing</td>
</tr>
<tr>
<td>3.0</td>
<td>BADM 144 Business Communications</td>
</tr>
</tbody>
</table>

VISUAL BASIC PROGRAMMING CERTIFICATE

This certificate program provides the student with solid, indepth training in developing applications with Visual Basic, one of today’s most widely used programming languages.

Requirements
16 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>CIS 210 Introduction to Visual Basic Programming</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 211A Advanced VB Programming A</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 211B Advanced VB Programming B</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 211C Advanced VB Programming C</td>
</tr>
</tbody>
</table>

WEB AUTHORING CERTIFICATE

This certificate provides the student solid training in developing web pages.

Requirements
14 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>CIS 111 Multimedia Presentations</td>
</tr>
<tr>
<td>2.0</td>
<td>CIS 136 Introduction to Internet/WWW</td>
</tr>
<tr>
<td>2.0</td>
<td>CIS 137 Introduction to HTML</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 205 Client-Side Scripting</td>
</tr>
<tr>
<td>2.0</td>
<td>CIS 50 Computer Ethics</td>
</tr>
</tbody>
</table>

Associated 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.
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 Auto Desk VIZ has been developed for game designers and architects who want to create 3D architectural virtual walkthroughs using AutoDesk VIZ.

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

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
Computer Animation Technician I Certificate
Geographic Information Systems (GIS) Certificate

Certificate Programs

DRAFTING TECHNICIAN I CERTIFICATE

Requirements
12 units minimum
Select a minimum of 6 units from Group I and 6 units from Group II

Group I -

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIDG 101</td>
<td>Introduction to Drafting</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 103</td>
<td>Blueprint Reading for Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 104</td>
<td>Blueprint Reading for Industry</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 105</td>
<td>Technical Sketching</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Group II -

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT 107</td>
<td>Technical Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 108</td>
<td>Advanced Technical Math</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 90</td>
<td>Intermediate Algebra</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 104</td>
<td>Trigonometry</td>
<td>3.0</td>
</tr>
</tbody>
</table>
ARCHITECTURAL CADD
(COMPUTER AIDED DESIGN AND DRAFTING)
TECHNICIAN I CERTIFICATE

Requirements
9 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>CIDG 103 Blueprint Reading for Construction</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 250 Architectural Computer Aided Design I</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 251 Architectural Computer Aided Design II</td>
</tr>
</tbody>
</table>

CADD
(COMPUTER AIDED DESIGN AND DRAFTING)
TECHNICIAN I CERTIFICATE

Requirements
9 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>CIDG 110 Two Dimensional AutoCAD</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 210 Advanced Two Dimensional AutoCAD</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 120 Solids Modeling and Three Dimensional AutoCAD</td>
</tr>
</tbody>
</table>

CIVIL CADD
(COMPUTER AIDED DESIGN AND DRAFTING)
TECHNICIAN I CERTIFICATE

Requirements
9 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>CIDG 230 Computer Aided Mapping I</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 231 Computer Aided Mapping II</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 280 Geographical Information System I (GIS)</td>
</tr>
<tr>
<td>3.0</td>
<td>AGNR 71 Geographical Information Systems in Natural Resources</td>
</tr>
</tbody>
</table>

COMPUTER ANIMATION TECHNICIAN I CERTIFICATE

Requirements
9 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>CIDG 160 3D Studio Max I</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 260 3D Studio Max II</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 261 3D Studio Max III</td>
</tr>
</tbody>
</table>

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 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>AGNR 71 GIS in Natural Resources</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 280 GIS I</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 281 GIS II</td>
</tr>
</tbody>
</table>

VISUAL COMMUNICATIONS CERTIFICATE - GRAPHIC DESIGN

Requirements
17.0 units minimum
All of the following must be completed with a grade of "C" or better:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>CIDG 70 Design for Graphic Artists</td>
</tr>
<tr>
<td>4.0</td>
<td>CIDG 71 Survey of Computer Graphic Studio</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 72 Computer Illustration</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 73 Typography and Layout</td>
</tr>
<tr>
<td>4.0</td>
<td>CIDG 79 Multimedia and Web Design</td>
</tr>
</tbody>
</table>

VISUAL COMMUNICATIONS CERTIFICATE - PRINT PRODUCTION

Requirements
16.0 units minimum
All of the following must be completed with a grade of "C" or better:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>CIDG 70 Design for Graphic Artists</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 77 Print Production Processes</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 73 Typography and Layout</td>
</tr>
<tr>
<td>4.0</td>
<td>CIDG 71 Survey of Computer Graphic Studio</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 75 Page Layout and Design</td>
</tr>
</tbody>
</table>

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 Heating, Ventilation and Air Conditioning/
Refrigeration Certificate
Building Construction Certificate
Building Inspector Certificate
Electrical Technician
Plumbing Technician
Public Works Certificate
Residential Maintenance Certificate

Certificate Programs

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:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>CT 101 Careers in Construction and Manufacturing</td>
</tr>
<tr>
<td>3.0</td>
<td>CT 105 Technical Sketching</td>
</tr>
<tr>
<td>3.0</td>
<td>CT 106 Materials of Construction</td>
</tr>
<tr>
<td>3.0</td>
<td>CT 107 Technical Math</td>
</tr>
<tr>
<td>3.0</td>
<td>CT 108 Advanced Technical Math</td>
</tr>
<tr>
<td>2.0</td>
<td>CT 116 Construction Safety</td>
</tr>
<tr>
<td>4.0</td>
<td>CT 131 Microcomputers in Construction</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 103 Blueprint Reading for Construction</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>CT 132 Construction Estimation</td>
</tr>
</tbody>
</table>
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 4.0
CT 127 Framing 4.0

Group III - 7 units of the following must be completed:
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:

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT 110 Building Codes and Zoning 3.0</td>
</tr>
<tr>
<td>CT 111A Uniform Building Code 1 3.0</td>
</tr>
<tr>
<td>CT 111B Uniform Building Code 2 3.0</td>
</tr>
<tr>
<td>CT 112 Uniform Mechanical Code 3.0</td>
</tr>
<tr>
<td>CT 113 Uniform Plumbing Code 3.0</td>
</tr>
<tr>
<td>CT 114 National Electrical Code 3.0</td>
</tr>
<tr>
<td>CT 115 Technical Office Procedures and Field Inspection 3.0</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT 103 Construction Management 3.0</td>
</tr>
<tr>
<td>CT 104 Construction Law 3.0</td>
</tr>
<tr>
<td>CT 109 Construction Financing 3.0</td>
</tr>
<tr>
<td>CT 110 Building Codes and Zoning 3.0</td>
</tr>
<tr>
<td>CT 132 Construction Estimation 3.0</td>
</tr>
</tbody>
</table>

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
Group I - All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT 107 Technical Math 3.0</td>
</tr>
</tbody>
</table>
| 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 |
| BADM 101 Elementary Accounting 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
0.0 units minimum
Group I - All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT 107 Technical Math 3.0</td>
</tr>
</tbody>
</table>
| OR
| CT 108 Advanced Technical Math 3.0 |
| AND
| CT 116 Construction Safety 2.0 |
| CT 120A Electrical Wiring 4.0 |
| CT 120B Commercial Wiring 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
Group I - All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT 107 Technical Math 3.0</td>
</tr>
</tbody>
</table>
| OR
| CT 108 Advanced Technical Math 3.0 |
| OR
| CT 109 Construction Financing 3.0 |
| CT 110 Building Codes and Zoning 3.0 |
| CT 132 Construction Estimation 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

<table>
<thead>
<tr>
<th>Group I - All of the following must be completed:</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTPB 111 Introduction to Public Works</td>
<td>3.0</td>
</tr>
<tr>
<td>CTPB 112 Plan Reading for Public Works</td>
<td>3.0</td>
</tr>
<tr>
<td>CTPB 113 Public Works Inspection</td>
<td>3.0</td>
</tr>
<tr>
<td>CTPB 114 Public Works Administration</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group II - Two of the following must be completed:</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT 23  Surveying</td>
<td>4.0</td>
</tr>
<tr>
<td>CTPB 115 Street and Highway Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>CTPB 116A Water Distribution Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>CTPB 117 Portland Cement Concrete</td>
<td>3.0</td>
</tr>
<tr>
<td>CTPB 118 Solid Waste Management</td>
<td>3.0</td>
</tr>
<tr>
<td>CTPB 119 Wastewater Management</td>
<td>3.0</td>
</tr>
</tbody>
</table>

BASIC RESIDENTIAL MAINTENANCE 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

<table>
<thead>
<tr>
<th>Group I - All of the following must be completed:</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT 107 Technical Math</td>
<td>3.0</td>
</tr>
<tr>
<td>OR AND CT 108 Advanced Technical Math</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 116 Construction Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>CTMT 120 Residential Maintenance and Repair</td>
<td>4.0</td>
</tr>
<tr>
<td>CTMT 121 Plumbing Repair</td>
<td>3.0</td>
</tr>
<tr>
<td>CTMT 122 Electrical Repair</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Associate Degree
To earn an Associate in Science degree with a major in Construction Technology complete a minimum of 18 units from any of the certificate requirements above or from any Construction Technology courses and meet all Victor Valley College graduation requirements. CT 138 (Cooperative Education) may be used as Elective credit but may not be used to fulfill major requirements.

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.

COOPERATIVE WORK EXPERIENCE EDUCATION

Cooperative Education is a key element of Victor Valley College’s comprehensive approach to career development. Co-op is an 18-, 13-, or 9-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

<table>
<thead>
<tr>
<th>Paid</th>
<th>Total Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 hrs/wk</td>
<td>1.0 unit</td>
</tr>
<tr>
<td>10 hrs/wk</td>
<td>2.0 units</td>
</tr>
<tr>
<td>15 hrs/wk</td>
<td>3.0 units</td>
</tr>
<tr>
<td>20 hrs/wk</td>
<td>4.0 units</td>
</tr>
<tr>
<td>40 hrs/wk</td>
<td>8.0 units</td>
</tr>
<tr>
<td>75</td>
<td></td>
</tr>
<tr>
<td>150</td>
<td></td>
</tr>
<tr>
<td>225</td>
<td></td>
</tr>
<tr>
<td>300</td>
<td></td>
</tr>
<tr>
<td>600</td>
<td></td>
</tr>
</tbody>
</table>

### 60 Hours per unit/per semester

<table>
<thead>
<tr>
<th>Volunteer</th>
<th>Total Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 hrs/wk</td>
<td>1.0 unit</td>
</tr>
<tr>
<td>8 hrs/wk</td>
<td>2.0 units</td>
</tr>
<tr>
<td>12 hrs/wk</td>
<td>3.0 units</td>
</tr>
<tr>
<td>16 hrs/wk</td>
<td>4.0 units</td>
</tr>
<tr>
<td>32 hrs/wk</td>
<td>8.0 units</td>
</tr>
<tr>
<td>60</td>
<td></td>
</tr>
<tr>
<td>120</td>
<td></td>
</tr>
<tr>
<td>180</td>
<td></td>
</tr>
<tr>
<td>240</td>
<td></td>
</tr>
<tr>
<td>480</td>
<td></td>
</tr>
</tbody>
</table>

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 Co-op 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 which 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. Up to 16 units may be accepted as elective credit for transfer to CSU.

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 Escrow
- Business Education Technologies
- 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
- 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
- Allan Kumlin

### 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 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
Students generally choose to pursue a Multiple Subject Teaching Credential if they plan to teach elementary (K-6) grades and a Single Subject Teaching Credential if they plan to teach secondary (7-12) grades. Special Education is an additional credential and usually requires one of the above credentials being a corequisite or prerequisite.

California school districts are moving in the direction of requiring the Cross-cultural, Language, and Academic Development (CLAD) Credential Program for both Multiple Subject and Single Subject Teaching Credentials. The CLAD Credential Program requires additional courses in cross-cultural topics and additional language requirements. Some universities will be upgrading all credentials to CLAD credentials in the future.
Students pursuing the CLAD credentials must complete one of the following to meet the language requirement:

1. Two years of high school course work in a second language other than English with “C” or better plus FREN 102 or SPAN 102
2. Two semesters of college course work in a second language other than English by completing any two consecutive courses from the same language:
   FREN 101, 102, 103, 104, SPAN 101, 102, 103, 104

Waiver Programs
Certain majors at universities have been approved for preparation for teaching and thus waive additional examinations of the National Teacher Examination (NTE). Whenever possible, students should choose majors which waive the Multiple Subject Assessment for Teachers (MSAT), the Specialty Examination, and the Praxis Subject Assessment Exams in the Single Subject of the NTE.

Multiple Subject Waiver Programs
California State University, San Bernardino:
Liberal Studies, Human Development/Child Development
Track II, American Studies

Multiple Subject Waiver Programs
University of California, Riverside:
English, Ethnic Studies, History, Human Development, Liberal Studies, Political Science, Sociology

Single Subject Waiver 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 Waiver Programs
University of California, Riverside
Biological Sciences, English, History, Mathematics, Political Science, Physical Sciences (Physics), Social Sciences (not a major, but a credential waiver program), Sociology

Because other waiver programs are pending and 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

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:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>EDUC 101 Introduction to Teaching</td>
</tr>
<tr>
<td>3.0</td>
<td>EDUC 52 Educating Today’s Learner</td>
</tr>
<tr>
<td>4.0</td>
<td>ETEC 106 Introduction to Computer Technology for Educators</td>
</tr>
<tr>
<td>2.0</td>
<td>ETEC 107 Introduction to the Internet for Educators</td>
</tr>
<tr>
<td>3.0</td>
<td>ETEC 51 Introduction to Educational Technology</td>
</tr>
<tr>
<td>3.0</td>
<td>ETEC 70 Leadership in Educational Technology</td>
</tr>
<tr>
<td>2.0</td>
<td>ETEC 90 Educational Technology Internship</td>
</tr>
</tbody>
</table>

COLLEGIATE 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 influence 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.
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
    - Human Development/Child Development Track II
  - 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 (CSET waiver)
  - (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.
VOCAATIONAL 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
  Los Angeles
  San Bernardino
  San Diego
  San Francisco
  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

Requirements
64.5-68.5 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELCT 131</td>
<td>DC Circuit Theory and Analysis</td>
</tr>
<tr>
<td>ELCT 132</td>
<td>AC Circuit Theory and Analysis</td>
</tr>
<tr>
<td>ELCT 133</td>
<td>Solid State Devices and Circuits</td>
</tr>
<tr>
<td>ELCT 134</td>
<td>Solid State Circuit Analysis</td>
</tr>
<tr>
<td>ELCT 71</td>
<td>Principles of Digital Logic and Circuits</td>
</tr>
<tr>
<td>ELCT 73</td>
<td>Microprocessor Principles</td>
</tr>
</tbody>
</table>

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 91* Microprocessor Interfacing          | 3.0
ELCT 92* Microprocessor Applications         | 3.0

* Individualized instruction courses require 108 hours of supervised laboratory activities.

All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELCT 57</td>
<td>Technical Mathematics for Electronics I</td>
</tr>
<tr>
<td>ELCT 58</td>
<td>Technical Mathematics for Electronics II</td>
</tr>
<tr>
<td>ELCT 59</td>
<td>Technical Calculus for Electronics I</td>
</tr>
<tr>
<td>ELCT 60</td>
<td>Technical Calculus for Electronics II</td>
</tr>
</tbody>
</table>
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* 0.5 - 1.0

*See pages 41-42 for a listing of courses that can satisfy the various GE requirements listed here.

COMMUNICATION ELECTRONICS CERTIFICATE

Requirements
38 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

ELECTRONICS TECHNOLOGY CERTIFICATE

Career Preparation

Requirements
44 units minimum
All of the following must be completed:

Units
ELCT 31  DC Circuit Theory and Analysis 4.0
ELCT 32  AC Circuit Theory and Analysis 4.0
ELCT 33  Solid State Devices and Circuits 4.0
ELCT 34  Solid State Circuit Analysis 4.0
ELCT 57  Technical Mathematics for Electronics I 3.0
ELCT 58  Technical Mathematics for Electronics II 3.0

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 I, II, III, IV CERTIFICATE

Requirements
16.0 units minimum
All of the following must be completed:

Units
ELCT 78A  CISCO Networking Academy I 4.0
ELCT 78B  CISCO Networking Academy II 4.0
ELCT 78C  CISCO Networking Academy III 4.0
ELCT 78D  CISCO Networking Academy IV 4.0

DIGITAL ELECTRONICS CERTIFICATE

Requirements
30 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

COMPUTER TECHNOLOGY CERTIFICATE

Career Preparation

Requirements
36 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

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ELCT 34  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  

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:

**Option 1: Optoelectronics**  
ELCT 85  Fiber Optics  3.0  
ELCT 86  Lasers  3.0  

**Option 2: Telecommunications**  
ELCT 97  Digital Communications  3.0  
ELCT 98  Microwave Communications  3.0  

**Option 3: Consumer Electronics**  
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  

**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  
  - 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.

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**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.

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**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
Fran Ferrance
Andrea Glebe
Patty Golder
Carol Gollhier
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. IGTC not recommended. However, students who have completed IGTC 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:

- **ART**
  - PHOT 100, 101, 102, 103, 104, 105, 128, 129

- **MUSIC**

- **PHOTOGRAPHY**
  - PHOT 100, 101, 102, 103, 104, 105, 128, 129

- **THEATRE ARTS**

**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 IGTC 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*

David G. Mathews

**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 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>FIRE 100</th>
<th>Fire Protection Organization</th>
<th>3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FIRE 101</td>
<td>Fundamentals of Fire Service Operations</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 102</td>
<td>Fire Prevention Technology</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 103</td>
<td>Fire Protection Equipment and Systems</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 104</td>
<td>Fire Behavior and Combustion</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 59</td>
<td>Hazardous Materials First Responder</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>FT 81</td>
<td>Emergency Medical Technician</td>
<td>5.5</td>
</tr>
<tr>
<td>OR</td>
<td>ALDH 71</td>
<td>Emergency Medical Technician I (Ambulance)</td>
<td>5.5</td>
</tr>
<tr>
<td></td>
<td>FIRE 95</td>
<td>Basic Fire Academy</td>
<td>10.0</td>
</tr>
</tbody>
</table>

**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 units minimum**

All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>FIRE 100</th>
<th>Fire Protection Organization</th>
<th>3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FIRE 101</td>
<td>Fundamentals of Fire Service Operations</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 102</td>
<td>Fire Prevention Technology</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 103</td>
<td>Fire Protection Equipment and Systems</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 104</td>
<td>Fire Behavior and Combustion</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 39</td>
<td>Fire Apparatus and Equipment</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 106</td>
<td>Fire Company Organization and Management</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 108</td>
<td>Fire Hydraulics</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 70</td>
<td>Fire Instructor Training 1A</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 71</td>
<td>Fire Instructor Training 1B</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 72</td>
<td>Fire Command 1A</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 73</td>
<td>Fire Command 1B</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 76</td>
<td>Fire Management 1</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 59</td>
<td>Hazardous Materials First Responder</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>FIRE 81</td>
<td>Emergency Medical Technician</td>
<td>5.5</td>
</tr>
<tr>
<td>OR</td>
<td>ALDH 71</td>
<td>Emergency Medical Technician I (Ambulance)</td>
<td>5.5</td>
</tr>
<tr>
<td></td>
<td>FIRE 95</td>
<td>Basic Fire Academy</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>CIS 101</td>
<td>Computer Literacy</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Group II - Three of the following must be completed:**

<table>
<thead>
<tr>
<th>Units</th>
<th>FIRE 107</th>
<th>Fire Investigation</th>
<th>3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FIRE 109</td>
<td>Wildland Fire Control</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 61</td>
<td>Rescue Practices</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 74</td>
<td>Fire Prevention 1A</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 75</td>
<td>Fire Prevention 1B</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 77</td>
<td>Investigation 1A</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**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 units minimum**

All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>FIRE 100</th>
<th>Fire Protection Organization</th>
<th>3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FIRE 101</td>
<td>Fundamentals of Fire Service Operations</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 102</td>
<td>Fire Prevention Technology</td>
<td>3.0</td>
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<tr>
<td></td>
<td>FIRE 103</td>
<td>Fire Protection Equipment and Systems</td>
<td>3.0</td>
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<tr>
<td></td>
<td>FIRE 104</td>
<td>Fire Behavior and Combustion</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 107</td>
<td>Fire Investigation</td>
<td>3.0</td>
</tr>
<tr>
<td>OR</td>
<td>FIRE 77 and 79</td>
<td>Investigation 1A and 1B</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 70</td>
<td>Fire Instructor Training 1A</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 71</td>
<td>Fire Instructor Training 1B</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 74, 75, 78</td>
<td>Fire Prevention 1A, 1B, 1C</td>
<td>6.0</td>
</tr>
<tr>
<td></td>
<td>FIRE 76</td>
<td>Fire Management 1</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**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)

See Agriculture and Natural Resources and Computer Integrated Design and Graphics.

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 Correspondent
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

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.
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. Course descriptions, see Section IX of this catalog.

**Certificate Program**
No certificates awarded.

**Associate Degree**
No associate degree offered with a major in Geography. Geology 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
- 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.

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.

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
Leo Lyman
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:

<table>
<thead>
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<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>JOUR 108</td>
<td>Fundamentals of Journalism</td>
<td>4.0</td>
</tr>
<tr>
<td>JOUR 108L</td>
<td>Journalism Lab</td>
<td>4.0</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>English Composition</td>
<td>4.0</td>
</tr>
<tr>
<td>PHOT 100</td>
<td>Basic Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>BET 135</td>
<td>Desktop Publishing: PageMaker</td>
<td>2.0</td>
</tr>
</tbody>
</table>

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

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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*
  - BIOL 211, 212, 215A, 215B, 215C
  - ANTH 101, 101L
  - ASTR 101
  - BIOL 201, 202, 203, 104, 118, 109, 100, 107, 114, 126, 127, 128, 129, 120, 121, 129, 221, 231, 232
  - CHEM 201, 201, 255, 206, 207, 281, 282, 100, H100, 114, 128, 129
  - GEOG 101 (cannot fulfill more than one area requirement)
  - GEOG 101L
  - MATH 90, 104, 105, H105, 116, 120, 226, 227, 228, 270, 128, 129, 231, 132, 50
  - OCEA 101
  - PSCI 101, 114, 115, 128
  - PHYS 201, 202, 203, H204, 222, 100, 128, 129
  - PE 102*

- **HUMANITIES** - 3 Units Minimum
  - FREN 101, 102, 103, 104, 125, 128, 129
  - GERM 101, 102, 103, 104, 128
  - PHOT 100, 101, 102, 103, 104, 105, 128, 129
  - PE 103
  - PEDA 150
  - RLST 1, 5A, 5B, 10, 15, 28, 29
  - SPAN 1, 1A, 1B, 2, 3, 4, 25, 28, 29

- **SOCIAL SCIENCE** - Minimum 3 Units
  - ALDH 125
  - ANTH 101, 102, 103, 105, 128, 129
  - ECON 101, 102, 118, 128, 129
  - GEOG 101 (cannot fulfill more than one area requirement), 102
  - GUID 105*
  - HIST 103, 104, 120, 121, 124, 125, 150, 130, 131, 153, 155, 157, 117, 118, 135, 127, 119, 128, 129, 145, 50, 55, 60
  - POLS 101, 102, 112, 103, 110, 111, 120, 128, 129
  - PSYC 101, 102, 103, 105*, 108, 110, 111, 113, 116, 121, 125, 128, 129, 130, 133, 139
  - SOC 101, 102, 103, 107, 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. 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, 120, 226, 227, 228, 129, 231, 132

- **LIFE SCIENCES**
  - ALDH 102*
  - PE 102*
  - PHYS 201, 202

- **PHYSICAL SCIENCES**
  - ASTR 101
  - CHEM 201, 202, 255, 206, 207, 281, 282, 100, H100, 114, 128, 129, 55
  - GEOG 101, 101L
  - GEOL 101, 102, 103, 109, 110, 112, 218
  - OCEA 101
  - PSCI 101, 114, 115, 128, 129
  - 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 (Co-}

opative 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.

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:
tics, and restorative processes.

Dentists provide comprehensive dental treatment to patients, including oral and maxillofacial surgery, endodontics, 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 101, 202, 206+207 or 281+282, ENGL 101, MATH 104, 105, 226, PHYS 221, 222, SPCH 109
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 101, 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, 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, endodontics, 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 101, 202, 206+207 or 281+282, ENGL 101, MATH 104, 105, 226, PHYS 221, 222, SPCH 109

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 101, 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 emphasize 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 101, 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:

The College of Osteopathic Medicine of the Pacific
Doctor of Osteopathic Medicine program
CHEM 101, 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 101, 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, 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, TA 101, TA 106

University of Southern California (Los Angeles):
BIOL 201, 202, CHEM 101, 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 101 + 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 101, 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:
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.

The following course work should be completed prior to 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 101, 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 101, 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 pursing 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
Nursing Assistant

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALDH 139</td>
<td>Medical Terminology</td>
<td>3.0</td>
</tr>
<tr>
<td>ALDH 80</td>
<td>Pharmacology</td>
<td>3.0</td>
</tr>
<tr>
<td>ALDH 81</td>
<td>Medical Insurance</td>
<td>3.0</td>
</tr>
<tr>
<td>ALDH 82</td>
<td>Medical Office Procedures</td>
<td>3.0</td>
</tr>
<tr>
<td>ALDH 82C</td>
<td>Medical Office Procedures/Clinical</td>
<td>5.0</td>
</tr>
<tr>
<td>ALDH 91</td>
<td>Basic CPR</td>
<td>0.5</td>
</tr>
<tr>
<td>BET 103</td>
<td>Beginning Word Processing/Typing</td>
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</tr>
<tr>
<td>OR</td>
<td>WordPerfect for Windows A/B/C</td>
<td></td>
</tr>
<tr>
<td>BET 104</td>
<td>Beginning Word Processing/Typing</td>
<td>3.0</td>
</tr>
<tr>
<td>OR</td>
<td>Word for Windows A/B/C</td>
<td></td>
</tr>
<tr>
<td>PSYC 110</td>
<td>Developmental Psychology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

To earn an Associate in Science degree, the student must complete all the certificate classes, complete three additional units in Allied Health, and meet the 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 103, 104, 105, 106, 110, 111, 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 ensure 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 UC 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. High school diploma, GED or high school Proficiency Exam.
2. Human anatomy (equivalent to Victor Valley College BIOL 211 or 212), 4-5 units completed with a grade of “C” or better.
3. Human physiology (equivalent to Victor Valley College BIOL 231 or 232), 4-5 units completed with a grade of “C” or better.
4. Microbiology (equivalent to Victor Valley College BIOL 221) 5 units with a grade of “C” or better.
5. 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 meet required immunizations, titers and have a chest X-ray and/or PPD. Also, a current American Heart Association CPR Certificate must be obtained and current. Current liability insurance is required in order to comply with the program and clinical agencies’ contractual requirements.
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
Prudence Ferraro
Diego Garcia
Maggie Keil
Rosemary Kirby
Alice Ramming
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
73.5 units minimum

Group A: All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0</td>
<td>NURS 220</td>
<td>Pharmacology and Nursing Management</td>
</tr>
<tr>
<td>10.0</td>
<td>NURS 221</td>
<td>Nursing Process 1</td>
</tr>
<tr>
<td>9.0</td>
<td>NURS 222</td>
<td>Nursing Process 2</td>
</tr>
<tr>
<td>9.0</td>
<td>NURS 223</td>
<td>Nursing Process 3</td>
</tr>
<tr>
<td>9.0</td>
<td>NURS 224</td>
<td>Nursing Process 4</td>
</tr>
<tr>
<td>5.0</td>
<td>BIOL 211</td>
<td>Human Anatomy</td>
</tr>
<tr>
<td>OR</td>
<td>BIOL 212</td>
<td>Human Anatomy</td>
</tr>
<tr>
<td>OR</td>
<td>BIOL 221</td>
<td>General Microbiology</td>
</tr>
<tr>
<td>OR</td>
<td>BIOL 231</td>
<td>Human Physiology</td>
</tr>
<tr>
<td>4.0</td>
<td>ENGL 101</td>
<td>English Composition and Reading</td>
</tr>
<tr>
<td>3.0</td>
<td>PSYC 101</td>
<td>General Psychology</td>
</tr>
<tr>
<td>3.0</td>
<td>PSYC 110</td>
<td>Developmental Psychology</td>
</tr>
<tr>
<td>3.0</td>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
</tr>
</tbody>
</table>

Group B: One of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>SPCH 106</td>
<td>Human Communication</td>
</tr>
<tr>
<td>3.0</td>
<td>SPCH 107</td>
<td>Family Communication</td>
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<tr>
<td>3.0</td>
<td>SPCH 108</td>
<td>Group Discussion</td>
</tr>
<tr>
<td>3.0</td>
<td>SPCH 109</td>
<td>Public Speaking</td>
</tr>
</tbody>
</table>

Group C: One of the following must be completed:
One course which meets the VVC Logic/Mathematics general education requirements for Category V (See page 42)

Group D: One of the following must be completed:
One course which meets the VVC Humanities general education requirement for Category III (See page 42)

Group E: One of the following must be completed:
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

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>4.0-5.0</td>
<td>BIOL 211 or 212</td>
<td>Human Anatomy</td>
</tr>
<tr>
<td>4.0-5.0</td>
<td>BIOL 231 or 232</td>
<td>Human Physiology</td>
</tr>
<tr>
<td>5.0</td>
<td>BIOL 221</td>
<td>General Microbiology</td>
</tr>
<tr>
<td>3.0</td>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
</tr>
<tr>
<td>3.0</td>
<td>PSYC 101</td>
<td>General Psychology</td>
</tr>
<tr>
<td>3.0</td>
<td>PSYC 110</td>
<td>Developmental Psychology</td>
</tr>
<tr>
<td>3.0</td>
<td>SPCH 106, 107, 108, or 109</td>
<td>Human Communication, Family</td>
</tr>
<tr>
<td>3.0</td>
<td>ENGL 101</td>
<td>English Composition and Reading</td>
</tr>
<tr>
<td>2.0</td>
<td>NURS 220</td>
<td>Pharmacology and Nursing Management</td>
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<td>Nursing Process 2</td>
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<td>NURS 223</td>
<td>Nursing Process 3</td>
</tr>
<tr>
<td>9.0</td>
<td>NURS 224</td>
<td>Nursing Process 4</td>
</tr>
</tbody>
</table>

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 Committee to determine appropriate application to and placement in the VVC Nursing Program. Placement will be made on a space available basis. If the student has earned a non-progression grade (D or F) in nursing at an other school, acceptance to Victor Valley College Nursing Program will be considered their second chance. (Contact the Director of Nursing regarding this placement option.)

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 pass the challenge exams for NURS 220, 221, and 222. Students are also required to pass NURS 225 LVN to RN transition course, which is offered during the Summer Semester. Depending
on the number of applicants, acceptance into the transition course may be based on the Enrollment Process. Applications for this option are accepted in the spring. (Contact the Director of Nursing regarding this placement option.)

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, SPCH 109, ENGL 101
   One course from the following: PHIL 207, 209, ENGL 104
4. Additional support courses: PSYC 110, CHEM 206, 207
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**

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>POLS 130 Introduction to Paralegalism</td>
</tr>
<tr>
<td>3.0</td>
<td>POLS 131 Fundamentals of Litigation for Paralegals</td>
</tr>
<tr>
<td>3.0</td>
<td>POLS 132 Legal Research and Writing for Paralegals</td>
</tr>
<tr>
<td>3.0</td>
<td>POLS 133 Legal Ethics for Paralegals</td>
</tr>
<tr>
<td>3.0</td>
<td>POLS 134 Family Law For Paralegals</td>
</tr>
<tr>
<td>3.0</td>
<td>POLS 135 Tort Law for Paralegals</td>
</tr>
<tr>
<td>3.0</td>
<td>AJ 103 Criminal Law</td>
</tr>
<tr>
<td>3.0</td>
<td>BADM 117 Legal Environment of Business</td>
</tr>
</tbody>
</table>

**Group II—At least 9 units of the following must be completed**

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>AJ 102 Criminal Procedures</td>
</tr>
<tr>
<td>3.0</td>
<td>AJ 104 Legal Aspects of Evidence</td>
</tr>
<tr>
<td>3.0</td>
<td>BADM 101 Elementary Accounting</td>
</tr>
<tr>
<td>3.0</td>
<td>OR 103 Principles of Accounting</td>
</tr>
<tr>
<td>3.0</td>
<td>BADM 111 Introduction to Public Administration</td>
</tr>
<tr>
<td>3.0</td>
<td>BADM 72 Internal Revenue Service Procedures</td>
</tr>
<tr>
<td>3.0</td>
<td>BRE 110 Legal Aspects of Real Estate I</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 103A, Beginning Word Processing/Typing</td>
</tr>
<tr>
<td>3.0</td>
<td>103B, 103C Word Perfect for Windows</td>
</tr>
<tr>
<td>3.0</td>
<td>OR</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 104A, Beginning Word Processing/Typing</td>
</tr>
<tr>
<td>3.0</td>
<td>104B, 104C Word for Windows</td>
</tr>
<tr>
<td>3.0</td>
<td>ENGL 104 Critical Thinking and Composition</td>
</tr>
<tr>
<td>3.0</td>
<td>OR</td>
</tr>
<tr>
<td>3.0</td>
<td>PHIL 109 Introduction to Logic</td>
</tr>
<tr>
<td>3.0</td>
<td>SPCH 109 Public Speaking</td>
</tr>
</tbody>
</table>

**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:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.5</td>
<td>ALDH 71 Emergency Medical Technician I (Ambulance)</td>
</tr>
</tbody>
</table>

Valid for two years from date of issue.

**EMERGENCY MEDICAL TECHNICIAN I CERTIFICATE (AMBULANCE)**

**Requirements**

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.5</td>
<td>ALDH 71 Emergency Medical Technician I (Ambulance)</td>
</tr>
</tbody>
</table>

**EMERGENCY MEDICAL TECHNICIAN CERTIFICATE (REFRESHER)**

**Requirements**

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>ALDH 72 Emergency Medical Technician I (Ambulance) Refresher Course</td>
</tr>
</tbody>
</table>

Required for renewal of Emergency Medical Technician Certificate.
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

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>ALDH 50 Paramedic Anatomy and Physiology</td>
<td></td>
</tr>
<tr>
<td>1.0</td>
<td>ALDH 51 Paramedic Introduction to EMS</td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>ALDH 52 Paramedic Cardiology</td>
<td></td>
</tr>
<tr>
<td>3.5</td>
<td>ALDH 53 Paramedic Pharmacology</td>
<td></td>
</tr>
<tr>
<td>1.0</td>
<td>ALDH 54 Paramedic ACLS</td>
<td></td>
</tr>
<tr>
<td>8.0</td>
<td>ALDH 55 Paramedic EMS Theory</td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td>ALDH 56 Paramedic Clinical</td>
<td></td>
</tr>
<tr>
<td>11.0</td>
<td>ALDH 57 Paramedic Field Internship</td>
<td></td>
</tr>
</tbody>
</table>

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.

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
(Most careers require a bachelor's or advanced degree.)

- 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 106, 107, 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.

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

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 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHOT 100</td>
<td>Basic Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>PHOT 101</td>
<td>Intermediate Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>PHOT 105</td>
<td>Portraiture</td>
<td>3.0</td>
</tr>
<tr>
<td>PHOT 52</td>
<td>Introduction to Photoshop</td>
<td>3.0</td>
</tr>
<tr>
<td>PHOT 53</td>
<td>Basic Photographic Lighting Techniques</td>
<td>3.0</td>
</tr>
<tr>
<td>PHOT 54</td>
<td>Portfolio Design</td>
<td>2.0</td>
</tr>
</tbody>
</table>

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 units minimum
Group I - All of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 103</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Group II - 10 units of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>APE 164</td>
<td>1.0</td>
</tr>
<tr>
<td>PEDA 160</td>
<td>1.0</td>
</tr>
<tr>
<td>OR TA 160</td>
<td></td>
</tr>
<tr>
<td>PEDA 161</td>
<td>1.0</td>
</tr>
<tr>
<td>OR TA 161</td>
<td></td>
</tr>
<tr>
<td>PEDA 169</td>
<td>1.0</td>
</tr>
<tr>
<td>PEDA 162</td>
<td>1.0</td>
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<tr>
<td>PEDA 163</td>
<td>1.0</td>
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<tr>
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<td>PEDA 164</td>
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<tr>
<td>PEDA 152</td>
<td>1.0</td>
</tr>
<tr>
<td>PEDA 153</td>
<td>2.0</td>
</tr>
<tr>
<td>PEDA 101</td>
<td>3.0</td>
</tr>
<tr>
<td>PEDA 166</td>
<td>1.0</td>
</tr>
<tr>
<td>OR TA 166</td>
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<td>PEDA 167</td>
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<tr>
<td>OR TA 167</td>
<td></td>
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<tr>
<td>PEDA 266</td>
<td>1.0</td>
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<tr>
<td>OR TA 266</td>
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<tr>
<td>PEDA 267</td>
<td>1.0</td>
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<tr>
<td>OR TA 267</td>
<td></td>
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<tr>
<td>PEDA 170</td>
<td>1.0</td>
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<tr>
<td>OR TA 170</td>
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<td>PEDA 171</td>
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<td>OR TA 171</td>
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<tr>
<td>OR TA 270</td>
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<td>PEDA 271</td>
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<tr>
<td>OR TA 271</td>
<td></td>
</tr>
<tr>
<td>PEDA 174</td>
<td>1.0</td>
</tr>
<tr>
<td>OR TA 174</td>
<td></td>
</tr>
</tbody>
</table>

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 175, 144
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
Physics 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 101, 202, MATH 226 + 227, 228, 231
PHYS 201 + 202 + 203 + H204
BS: Optional: Add CIS 201 + 202
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.

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 101, 202, MATH 226 + 227, 228, 231
PHYS 201 + 202 + 203 + H204
BS: Optional: Add CIS 201 + 202
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 Party Worker
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
POLS 102, 112, 110, MATH 120
Cooperative major with Law and Society: Add PHIL 207, SOC 101
Cooperative major with Administrative Studies: Add BADM 101 or 103, 100, CIS 101, MATH 120,
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.)
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 practices 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.

Applications are available from the Program Director, Allied Health, and the Counseling Department.

Career Opportunities
(Most careers require a bachelor’s or advanced degree.)
Counselor
Government Service
Professional Religious Leader
Religious Educator
Religious Editor
Social Worker
Teacher
Textbook Editor

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.

RELIGIOUS STUDIES

The academic study of religion is an objective, factual study of the texts, symbols, myths, rituals, ideas, and values of 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.)
Counselor
Government Service
Professional Religious Leader
Religious Educator
Religious Editor
Social Worker
Teacher
Textbook Editor

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

(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 units minimum
Group A: All of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSPT 230</td>
<td>Introduction to Respiratory Therapy</td>
<td>3.0</td>
</tr>
<tr>
<td>RSPT 231</td>
<td>Orientation to and Basic Fundamentals of</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>Respiratory Therapy</td>
<td></td>
</tr>
<tr>
<td>RSPT 232</td>
<td>Patient Assessment and Clinical Application</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>of Respiratory Care</td>
<td></td>
</tr>
</tbody>
</table>
Applications can be obtained through the Allied Health Office or the Counseling Department. Prerequisites: CHEM 100, BIOL 100, and MATH 150 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
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](http://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](http://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](http://www.assist.org).

**University of California, Riverside**

Refer to the major preparation agreements on ASSIST, at [www.assist.org](http://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.)

### SOCIOLGY

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
Refer to the major preparation agreements on ASSIST, at University of California, Riverside
CSU General Education-Breadth Requirements

culture (civilization). This study affords insight into foreign attitudes and methods and encourages free communication, written and oral, among people.

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
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.)

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
Marjorie Milroy
John Rude
Theresa Mirci-Smith
Polly Fitch, Emeritus

**Certificate Program**
No certificates awarded.

**Associate Degree**
No associate degree offered with a major in Speech Communication. 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

**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
Marjorie Milroy
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 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. 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
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.

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.

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 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 51</td>
<td>Oxyacetylene Welding, Cutting, and Brazing</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 52</td>
<td>Shielded Metal Arc Welding-Basic</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 53</td>
<td>Shielded Metal Arc Welding-Advanced</td>
<td>4.0</td>
</tr>
<tr>
<td>WELD 57A</td>
<td>Gas Tungsten Arc Welding-Basic</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD 57B</td>
<td>Gas Tungsten Arc Welding-Advanced</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD 58A</td>
<td>Gas Metal Arc Welding-Basic</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD 58B</td>
<td>Gas Metal Arc Welding-Advanced</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD 59</td>
<td>Welding Symbols and Blueprint Reading</td>
<td>1.0</td>
</tr>
</tbody>
</table>

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.

Career Opportunities
Boilermakers
Iron Workers
Maintenance Worker
Millwrights
Sheet Metal Workers
Welder
Welder-Fitter
Welding Estimator
IX.
COURSE DESCRIPTIONS

"The very spring and root of honesty and virtue lie in good education."

- Plutarch
46-120 A.D.
Starting Fall 2003 . . .

Course Numbers have Changed!

What’s happening?

Victor Valley College has replaced its outdated course numbering format with a new, simpler one, designed to be compatible with our new computer system and more similar to those of other colleges and universities. For example, English 1A has become English 101; Math 5 has become Math 105.

How does it affect me as a student?

Courses are listed in a more logical sequence. You can see right away whether a course can be used for a degree or a certificate, and whether it transfers to a university.

How does it work?

It’s simple! Courses that are numbered . . .

. . . 1 - 49 do not apply to any degree
. . . 50 - 99 apply to the AA or AS degree, but don’t transfer to a university
. . . 100 - 299 apply to the AA or AS degree, and normally transfer to a university
   (check with the individual college or university for specific transfer requirements)

How will the changeover happen?

For the next several years, courses listed in the WC Catalog and in the Class Schedule will include the entry, “Formerly [whatever the number was before],” so confusion will be minimized. All requirements for WC certificates and degrees have been translated into the new format. We will use the same courses in the same way, no matter which number you took them under. Course-to-course articulations with universities are now being updated. It should be a seamless switch to a much better system!

Questions?

Counseling Department - ext. 2296  •  Office of Student Learning - ext. 2411  •  Admissions & Records - ext. 2272
### COURSE NUMBERING SYSTEM

<table>
<thead>
<tr>
<th>OLD NO.</th>
<th>NEW NO.</th>
<th>COURSE TITLE</th>
<th>OLD NO.</th>
<th>NEW NO.</th>
<th>COURSE TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJ 11</td>
<td>AJ 101</td>
<td>Intro to Admin Just (CAN AJ 2)</td>
<td>AG 55</td>
<td>AGNR 102</td>
<td>Equine Science</td>
</tr>
<tr>
<td>AJ 12</td>
<td>AJ 102</td>
<td>Criminal Procedures</td>
<td>AG 60</td>
<td>AGNR 70</td>
<td>Environmental Science</td>
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<tr>
<td>AJ 13</td>
<td>AJ 103</td>
<td>Criminal Law (CAN AJ 4)</td>
<td>AG 65</td>
<td>AGNR 71</td>
<td>Geographic Info Sys in Nat Sci</td>
</tr>
<tr>
<td>AJ 14</td>
<td>AJ 104</td>
<td>Lgl Aspt of Evidence (CAN AJ 6)</td>
<td>AG 65L</td>
<td>AGNR 72</td>
<td>Geographic Information Sys Lab</td>
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<tr>
<td>AJ 23</td>
<td>AJ 123</td>
<td>Police Supervision &amp; Leadership</td>
<td>NEW</td>
<td>AGNR 74</td>
<td>Environmental Field Studies</td>
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<tr>
<td>AJ 24</td>
<td>AJ 124</td>
<td>Vice, Narcotics &amp; Organized Crime</td>
<td>AG 70</td>
<td>AGNR 131</td>
<td>Soil Science</td>
</tr>
<tr>
<td>AJ 26</td>
<td>AJ 126</td>
<td>Traffic Control</td>
<td>AG 75</td>
<td>AGNR 141</td>
<td>Plant Materials &amp; Usage II</td>
</tr>
<tr>
<td>AJ 27</td>
<td>AJ 127</td>
<td>Crime and Delinquency</td>
<td>NEW</td>
<td>AGNR 80</td>
<td>Master Gardener</td>
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<td>AJ 30</td>
<td>AJ 130</td>
<td>Death Investigation</td>
<td>AG 80L</td>
<td>AGNR 60</td>
<td>Environmental Horticulture Lab</td>
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<tr>
<td>AJ 32</td>
<td>AJ 132</td>
<td>Intro to Corrections</td>
<td>AG 90</td>
<td>AGNR 101</td>
<td>Animal Nutrition</td>
</tr>
<tr>
<td>AJ 33</td>
<td>AJ 133</td>
<td>Writing for Criminal Justice</td>
<td>OH 17</td>
<td>AGNR 151</td>
<td>Landscape Construction</td>
</tr>
<tr>
<td>AJ 34</td>
<td>AJ 134</td>
<td>Police Field Operations</td>
<td>AG 95</td>
<td>AGNR 73</td>
<td>Water Science</td>
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<tr>
<td>AJ 35</td>
<td>AJ 135</td>
<td>Juvenile Law &amp; Procedures</td>
<td>OH 19</td>
<td>AGNR 120</td>
<td>Pest Management in Environ Hort</td>
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<tr>
<td>AJ 38</td>
<td>AJ 138</td>
<td>Cooperative Education</td>
<td>OH 31</td>
<td>AGNR 121</td>
<td>Fundamentals of Environ Hort</td>
</tr>
<tr>
<td>AJ 40</td>
<td>AJ 140</td>
<td>Comm Skils Interview/Interrogation</td>
<td>OH 32</td>
<td>AGNR 122</td>
<td>Plant Propagation</td>
</tr>
<tr>
<td>AJ 48</td>
<td>AJ 148</td>
<td>Special Topics</td>
<td>OH 34</td>
<td>AGNR 160</td>
<td>Beginning Floral Design</td>
</tr>
<tr>
<td>AJ 49</td>
<td>AJ 149</td>
<td>Independent Study</td>
<td>OH 35</td>
<td>AGNR 152</td>
<td>Landscape Irrigation</td>
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<tr>
<td>AJ 52</td>
<td>AJ 52</td>
<td>Forensic Entomology</td>
<td>OH 36</td>
<td>AGNR 153</td>
<td>Landscape Maintenance</td>
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<tr>
<td>AJ 53</td>
<td>AJ 53</td>
<td>Forensic Anthropology</td>
<td>OH 37</td>
<td>AGNR 161</td>
<td>Floral Design II</td>
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<td>AJ 54</td>
<td>AJ 54</td>
<td>Forensic Pathology</td>
<td>OH 38</td>
<td>AGNR 138</td>
<td>Cooperative Education</td>
</tr>
<tr>
<td>AJ 58</td>
<td>AJ 58</td>
<td>PC 832 Law Enforcement Course</td>
<td>OH 39</td>
<td>AGNR 150</td>
<td>Landscape Design</td>
</tr>
<tr>
<td>AJ 62A</td>
<td>AJ 82A</td>
<td>Law Enforcement Academy</td>
<td>OH 40</td>
<td>AGNR 140</td>
<td>Plant Materials &amp; Usage I</td>
</tr>
<tr>
<td>AJ 62B</td>
<td>AJ 82B</td>
<td>Law Enforcement Acod Module D</td>
<td>OH 43</td>
<td>AGNR 154</td>
<td>Landscape and Nursery Mgmt</td>
</tr>
<tr>
<td>AJ 63</td>
<td>AJ 80</td>
<td>Law Enforcement Acod Level III</td>
<td>OH 48</td>
<td>AGNR 148</td>
<td>Special Topics</td>
</tr>
<tr>
<td>AJ 64</td>
<td>AJ 64</td>
<td>Basic Corrections Officer Acad</td>
<td>OH 49</td>
<td>AGNR 149</td>
<td>Independent Study</td>
</tr>
<tr>
<td>AJ 67</td>
<td>AJ 67</td>
<td>Field Evidence Technician</td>
<td>AH 12</td>
<td>ALDH 102</td>
<td>Contemp Prob in Prsnl/Comm Hlth</td>
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<tr>
<td>AJ 68</td>
<td>AJ 81</td>
<td>Lev II Law Enforcement Mod Bsc Acad</td>
<td>AH 20</td>
<td>ALDH 141</td>
<td>Athletic Training I</td>
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<tr>
<td>AJ 71</td>
<td>AJ 71</td>
<td>Intermed Traffic Accident Invest</td>
<td>AH 21</td>
<td>ALDH 142</td>
<td>Athletic Training II</td>
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<td>AJ 72</td>
<td>AJ 72</td>
<td>Traffic Accident Reconstruction</td>
<td>AH 25</td>
<td>ALDH 125</td>
<td>Med Aspects of Drugs &amp; Alcohol</td>
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<td>AJ 73</td>
<td>AJ 73</td>
<td>Legal Aspects of Corrections</td>
<td>AH 38</td>
<td>ALDH 138</td>
<td>Cooperative Education</td>
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<tr>
<td>AJ 74</td>
<td>AJ 74</td>
<td>Multicultural Issues in Pub Safety</td>
<td>AH 39</td>
<td>ALDH 139</td>
<td>Medical Terminology</td>
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<td>AJ 75</td>
<td>AJ 75</td>
<td>Juvenile Counselor Course</td>
<td>AH 48</td>
<td>ALDH 148</td>
<td>Special Topics</td>
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<td>AJ 90</td>
<td>AJ 90</td>
<td>Security Officers' Training Acad</td>
<td>AH 49</td>
<td>ALDH 149</td>
<td>Independent Study</td>
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<td>NEW</td>
<td>AJ 6</td>
<td>School Police Officer</td>
<td>AH 50</td>
<td>ALDH 50</td>
<td>Paramedic Anat &amp; Physio/Med Trm</td>
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<tr>
<td>AJ 101</td>
<td>AJ 7</td>
<td>Career Dev in Criminal Justice</td>
<td>AH 51</td>
<td>ALDH 51</td>
<td>Paramedic Intro to EMS</td>
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<tr>
<td>AJ 102</td>
<td>AJ 7</td>
<td>Career Dev in Criminal Justice</td>
<td>AH 52</td>
<td>ALDH 52</td>
<td>Paramedic Cardiology</td>
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<td>AJ 103</td>
<td>AJ 8</td>
<td>PC 832.3 Campus Law Enforcement</td>
<td>AH 53</td>
<td>ALDH 53</td>
<td>Paramedic Pharmacology</td>
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<td>AJ 104</td>
<td>AJ 20</td>
<td>Public Safety Internship Acad I</td>
<td>AH 54</td>
<td>ALDH 54</td>
<td>Paramedic Adv Cardiac Life Support</td>
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<td>AJ 105</td>
<td>AJ 21</td>
<td>Public Safety Internship Acad II</td>
<td>AH 55</td>
<td>ALDH 55</td>
<td>Paramedic Emerg Med Svcs Theory</td>
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<tr>
<td>AJ 106</td>
<td>AJ 25</td>
<td>Public Safety Dispatcher</td>
<td>AH 56</td>
<td>ALDH 56</td>
<td>Paramedic Clinical</td>
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<td>AJ 110</td>
<td>AJ 30</td>
<td>Firearms Training</td>
<td>AH 57</td>
<td>ALDH 57</td>
<td>Paramedic Field Internship</td>
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Higher level courses, mostly with prerequisites that are degree applicable and transferable.

1-49 Non-degree applicable and non-transferable.

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.

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ADMINISTRATION OF JUSTICE

AJ 6 School Police Officer (PC 832.2) 3.0 Units
(formerly AJ101)
The campus police course is POST certified covering the role of the school peace officer, laws impacting a college campus, inter-personal relations between the campus police and students or administrative personnel, inter-agency relations, traffic violations and parking, and handling campus emergencies or disasters. Six lecture hours per week for nine weeks. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit)

AJ 7 Career Development in Criminal Justice 1.5 Units
(formerly AJ102)
This course offers a complete package designed to orient the serious law enforcement candidate towards a career choice. Included will be exposure to the many areas of law enforcement opportunities available in local, county, state and federal agencies; pitfalls and politics of the job; and how to prepare for passing required tests for the different agencies. Three lecture hours per week for nine weeks. This course will not apply to the Associate Degree. (No prerequisite)

AJ 8 PC 832.3 Campus Law Enforcement 2.0 Units
(formerly AJ103)
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 20 Public Safety Internship Academy I 5.0 Units
(formerly AJ104)
This course is designed to meet the purpose and scope of the Tech Prep Program. This course will introduce the high school student to the work ethic expected of any professional in the criminal justice field; identify career pitfalls; and expose the student to report writing, firearms and defense tactics, physical fitness, corrections, and fire technology. Four hours lecture, three laboratory hours per week per week. This course will not apply to the Associate Degree. (No Prerequisite. Credit/No Credit) This course may be taken four times.

AJ 21 Public Safety Internship Academy II 5.0 Units
(formerly AJ105)
The Public Safety Internship Academy is designed to meet the purpose and scope of the Tech Prep program. Part II of the Intern Academy will focus on special units in law enforcement, gangs, physical fitness, tactical communications, aspects of defensive tactics and use of force, firearms safety, and courtroom demeanor. Four lecture, three laboratory hours per week. This course will not apply to the Associate Degree. (Prerequisite: AJ 20. Credit/No Credit) This course may be taken two times.

AJ 22 Public Safety Intern Academy Lab 1.0 Unit
This is a high school intern skills lab that reinforces specific skills introduced in AJ 20 and AJ 21. Three laboratory hours per week. This course will not apply to the Associate Degree. (Prerequisite: AJ 21. Credit/No Credit) This course may be taken two times.

AJ 25 Public Safety Dispatcher 5.5 Units
(formerly AJ106)
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 Firearms Training 0.5 Unit
(formerly AJ110)
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.

AJ 31 Fingerprint Recognition and Classification 3.0 Units
(formerly AJ111)
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 Anthropology 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 Law Enforcement Course  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 71  Intermediate Traffic Accident Investigation (Skidmark Analysis)  2.0 Units
This course complies with the requirements of the Commission on Peace Officer Standards and Training for Basics of T iremark Identification and Analysis. Course includes identification of tiremarks, documentation and measurements, case preparation, and testimony of speed from skidmarks. Class meets for a total of 40 lecture hours. (Prerequisite: Basic Traffic Accident Investigation Course or a certified Basic Academy course which satisfies the requirements of the Basic Traffic Accident Investigation Course, and knowledge of high school algebra and trigonometry) This course may be taken three times.

AJ 72  Traffic Accident Reconstruction  4.0 Units
This course furnishes the student with the opportunity to experience, investigate, and describe various relationships in physics as related to traffic accident reconstruction. Correlation between mathematical models and real world events is stressed. This course introduces methods of completing investigative reports dealing with this level of material, presenting information to attorneys, and testifying. Class meets for a total of 68 lecture hours and 12 laboratory hours. (Prerequisite: AJ 71)

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 per week. (No Prerequisite. Credit/ No Credit) This course may be taken two times.

AJ 80  Law Enforcement Academy Level III  4.0 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. Sixty-one lecture, fifty-eight 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 82A  Law Enforcement Academy  Module D, Part A  14.0 Units
This course complies with the requirements prescribed by the Commission on Peace Officers Standards and Training (POST); elevating a Level II Reserve to Level I or full-time peace officer status, effective January 1, 1997. This course includes Professionalism, report writing, Domestic Violence, investigation methods for Crimes in Progress, Crimes against Persons, Crimes against Property, child abuse and Molestation Investigations, and Health and Safety violations. Firearms and Defense training are included with a strenuous physical training program. In order to receive certification and credit, both AJ 82A and AJ 82B must be successfully completed in consecutive semesters. Twelve lecture, six laboratory hours per week. (Prerequisite: DOJ Records check, and medical exam verifying medical clearance for the POST physical agility test. Credit/No Credit) This course may be repeated as required.

AJ 82B  Law Enforcement Academy  Module D, Part B  7.0 Units
This course complies with the requirements prescribed by the Commission on Peace Officers Standards and Training (POST); elevating a Level II Reserve to Level I or full-time peace officer status, effective January 1, 1997. This course includes Professionalism, report writing, Domestic Violence, investigation methods for Crimes in Progress, Crimes against Persons, Crimes against Property, child abuse and Molestation Investigations, and Health and Safety violations. Firearms and Defense training are included with a strenuous physical training program. Twelve lecture, six laboratory hours per week for nine weeks. (Prerequisite: AJ 82A, the previous semester. 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  4.0 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 91  Corrections Supervision and Control  4.0 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 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  3.0 Units
(formerly AJ14) (CAN AJ 6)
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 Leadership  3.0 Units
(formerly AJ23)
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 124  Vice, Narcotics and Organized Crime  3.0 Units
(formerly AJ24)
Formerly Narcotics Investigation.
The interrelations of organized crime to the community; the impact of covert criminal activities upon the social structure; symptoms of organized crime activity, i.e., narcotics and white collar crime; political influences in the legal system; management of crime control units. 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 3.0 Units  
(formerly AJ32)  
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 3.0 Units  
(formerly AJ33)  
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 134 Police Field Operations 3.0 Units  
(formerly AJ34)  
The history and development of patrol philosophy; planning patrol activities; handling complaints and request for services; mechanics of field interviews, searches, and arrests; the handling of traffic related problems; civil and domestic disturbances and other community crime incidents. Three lecture hours per week. CSU. (No prerequisite)

AJ 135 Juvenile Law and Procedures 3.0 Units  
(formerly AJ35)  
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 3.0 Units  
(formerly AJ38)  
See Cooperative Education listing (1-8 units). CSU

AJ 140 Communication Skills for Interviewing and Interrogation 3.0 Units  
(formerly AJ40)  
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 3.0 Units  
(formerly AJ48)  
See Special Topics listing (Variable units). CSU

AJ 149 Independent Study 3.0 Units  
(formerly AJ49)  
See Independent Study listing (1-3 units). CSU

AGNR 60 Environmental Horticulture 1.0-4.0 Units  
(formerly AG80)  
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 70 Environmental Science 4.0 Units  
(formerly AG60)  
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. (No prerequisite) This course may be taken three times.

AGNR 71 Geographic Information Systems for Natural Resources 3.0 Units  
(formerly AG65)  
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. (No prerequisite) This course may be taken four times.
AGNR 72  Geographic Information Systems  4.0 Units
(formerly AG65L)  Laboratory  
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. Twelve 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 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  3.0 Units
(formerly AG31) 
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

AGNR 120  Pest Management in Environmental Horticulture  3.0 Units
(formerly OH19) 
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 weedicides 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 Horticulture  3.0 Units
(formerly OH31) 
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 129  Water Efficient Landscaping  3.0 Units
(formerly AG54) 
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 demand 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
AGNR 138 Cooperative Education  (formerly OH38)
See Cooperative Education listing (1-8 units). CSU

AGNR 140 Plant Materials and Usage I  (formerly OH40)
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.) This course may be taken four times.

AGNR 141 Plant Materials and Usage II  (formerly AG75)
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 re-vegetation. 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. (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  (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 Fundamentals  2.0 Units  (formerly OH36)
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 Management  3.0 Units  (formerly OH43)
A combination course covering the basics of landscaping and nursery management. Three lecture hours per week. CSU.

AGNR 160 Beginning Floral Design  (formerly OH34)
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.

ALLIED HEALTH

ALDH 50 Paramedic Anatomy and Physiology and Medical Terminology  3.0 Units  (formerly AH50)
This is the introductory course of the Paramedic program. This course includes Basic Anatomy, Physiology, and Medical Terminology for the Paramedic. Four lecture hours per week. Offered Summer. (No prerequisite) This course may be taken two times.

ALDH 51 Paramedic Introduction to EMS  1.0 Unit  (formerly AH51)
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 Life Support  1.0 Unit  
(formerly AH54)
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 Services Theory  8.0 Units  
(formerly AH55)
This course covers the theoretical base of assessing and reporting all aspects of trauma and medical emergencies, and includes skills practice in the lab. Seven lecture, three laboratory hours per week. Offered Fall. (No prerequisite) 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  11.0 Units  
(formerly AH57)
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: Eligible for or have taken ENGL 50. Completion of Healthcare Provider CPR program with current card, or concurrent enrollment in ALDH 91 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 (Ambulance)  5.5 Units  
(formerly AH71)
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. Three lecture, six 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 final exam.)

ALDH 72  Emergency Medical Technician (Ambulance) Refresher Course  1.0 Unit  
(formerly AH81)
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 techniques, 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 241. (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 rehabitation protocols. Use of modalities including, whirlpool, ultrasound, ice, Emergency Medical Services, hydroculator, Range of Motion exercises, joint mobilization, strengthening exercises (isokinetic, isotonic, isometric), cardiovascular conditioning and proprioceptive exercises. See cross listing for PE 242. 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-Clinical  
(formerly AH86C)  
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.) 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 Technician 1A  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 of GED, or documentation of equivalent education.) This course may be taken four times.

ALDH 90B  Certified Phlebotomy Technician 1B  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 Technician 1C  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 Personal and Community Health  
(formerly AH12)  
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, Summer. (No prerequisite)

ALDH 125  Medical Aspects of Drugs and Alcohol  
(formerly AH25)  
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, psychedelic drugs, opiates, marijuana, hallucinogens, and other prescription and over-the-counter drugs. Three lecture hours per week. CSU, UC (UC credit limited). (No prerequisite)

ALDH 138  Cooperative Education  
(formerly AH38)  
See Cooperative Education listing (1-8 units). CSU

ALDH 139  Medical Terminology  
(formerly AH39)  
3.0 Units
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  
(formerly AH20)  
3.0 Units
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  
(formerly AH21)  
3.0 Units
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

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 mapping 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 54L Archaeology Lab 2.0 Units (formerly ANTHRO54L)
This course is designed as a laboratory class that complements 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. (No prerequisite.)

ANTH 101 Introduction to Physical Anthropology (formerly ANTHRO1) (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. (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. (Prerequisite or corequisite ANTH 101. Grade Option)

ANTH 102 Introduction to Cultural Anthropology (formerly ANTHRO2) 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. (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 archaeological 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)

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ANTH 105  Indians of North America  3.0 Units
(Formerly ANTHRO5)
This course may be taken three times. It relates the artifacts and other remains found on sites to human behavior. One-half hour lecture, seven and one-half laboratory hours per week. CSU, UC. (No prerequisite. Grade Option.)

ANTH 128  Special Topics  3.0 Units
(Formerly ANTHRO28)
See Special Topics listing (Variable units). CSU

ANTH 129  Independent Study  3.0 Units
(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 101  Survey of Art History (Can Art 2)  3.0 Units
(Formerly ART1A)
An historical survey of significant art from prehistoric times through the fourteenth century. CSU, UC. Offered Fall. (No prerequisite)

ART 102  Survey of Art History (Can Art 4)  3.0 Units
(Formerly ART1B)
An historical survey of significant art from the Renaissance through modern times. Three lecture hours per week. CSU, UC. Offered Spring. (No prerequisite)

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  3.0 Units
(Formerly ART7)
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. (No prerequisite. Grade Option.)

ART 110  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  3.0 Units
(formerly ART12C) (CAN ART 16)
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 of 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) This course may be taken two times.

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  3.0 Units
(formerly ART17A) (CAN ART 10)
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  3.0 Units
(formerly ART17B)
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 Fall. (No prerequisite) This course may be taken four times.

ART 122  Introduction to Life Drawing  3.0 Units
(formerly ART18A) (CAN ART 24)
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  3.0 Units
(formerly ART18B)
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  3.0 Units
(formerly ART18C)
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  3.0 Units
(formerly ART25A) (CAN ART 8)
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  3.0 Units
(formerly ART25B)
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  3.0 Units
(formerly ART28)
See Special Topics listing (Variable units). CSU

ART 129  Independent Study  3.0 Units
(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 3.0 Units
(formerly ART31)
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 3.0 Units
(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
(formerly ART42)
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 3.0 Units
(formerly ART19A)
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 25A and ART 12A/B recommended) This course may be taken four times.

ART 151 Intermediate Oil Painting 3.0 Units
(formerly ART19B)
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 ASTRONOMY 1)
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 ATHLCTS 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 Men's Baseball 1.0 Unit
(formerly ATHLCTS 20)
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 ATHLCTS 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 Men's Basketball 1.0 Unit
(formerly ATHLCTS 44)
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, UC. Offered Fall, Summer. This course may be taken four times.
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 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 125 Varsity Golf (Men) (formerly ATHLTCS 22) 3.0 Units
Students will learn the basic skills, rules, and strategies for competition in golf. CSU, UC (UC maximum credit allowed: 4 units) Offered Fall, 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 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 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 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 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 126P Preparation for Intercollegiate (formerly ATHLTCS 26) 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 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 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 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 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 123 Cross Country (Women) (formerly ATHLTCS 23) 3.0 Units
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 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 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 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. 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 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. 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. 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.
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 Automotive Cylinder Head 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 Automotive Machinist/Cylinder 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 Automotive Machinist/Engine 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 Automotive, Standard 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 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 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 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 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  Automotive Lubrication
(formerly AUTO 81)  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  Automotive Tire Technician
(formerly AUTO 82)  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  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 determined 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  Automotive Brakes  4.0 Units
(formerly AUTO 68)
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. Four lecture hours, four laboratory hours per week. (Prerequisite: AUTO 50 or equivalent experience) This course may be taken four times.

AUTO 63  Introduction to Diesel Engine Repair  4.0 Units
(formerly AUTO 55)
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 5

AUTO 63A  Advanced Diesel Engine Repair
(formerly AUTO 74)  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  Medium/Heavy Duty Truck Suspension and Steering
(formerly AUTO 79)  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  Heavy Duty Diesel Truck Lubrication and Inspection Technician
(formerly AUTO 73)  2.0 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 66  Heavy Duty Truck Air Brakes
(formerly AUTO 88)  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 67  Heavy Duty Truck Hydraulic Brakes
(formerly AUTO 89)  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 68  Heavy Duty Truck Hydraulic Brakes
(formerly AUTO 89)  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  Small Engine Repair
(formerly AUTO 87)  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  Motorcycle Engine Repair
(formerly AUTO 96)  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.
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<td>AUTO 73</td>
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<td>AUTO 77</td>
<td>Automotive Service Writing and Shop Manager</td>
<td>2.0</td>
</tr>
<tr>
<td>(formerly AUTO 62)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUTO 77L</td>
<td>Automotive Service Writing and Shop Manager Laboratory</td>
<td>2.0</td>
</tr>
<tr>
<td>(formerly AUTO 62L)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUTO 78</td>
<td>Auto Parts Specialist</td>
<td>4.0</td>
</tr>
<tr>
<td>(formerly AUTO 63)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUTO 78L</td>
<td>Auto Parts Counter Person Laboratory</td>
<td>2.0</td>
</tr>
<tr>
<td>(formerly AUTO 63L)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUTO 79</td>
<td>Automotive Tune-Up, Emission Control, and Fuel System</td>
<td>12.0</td>
</tr>
<tr>
<td>(formerly AUTO 53)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUTO 79A</td>
<td>Basic Tune-Up</td>
<td>2.0</td>
</tr>
<tr>
<td>(formerly AUTO 80)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUTO 79B</td>
<td>Trouble Shooting and Repair of Ignition and Fuel Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>(formerly AUTO 115)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUTO 80</td>
<td>Automotive Computers, Electronics and Electrical Systems</td>
<td>12.0</td>
</tr>
<tr>
<td>AUTO 77A</td>
<td>Automotive Writing and Shop Manager</td>
<td>2.0</td>
</tr>
<tr>
<td>AUTO 77B</td>
<td>Automotive Writing and Shop Manager</td>
<td>2.0</td>
</tr>
<tr>
<td>AUTO 78A</td>
<td>Automotive Writing and Shop Manager</td>
<td>2.0</td>
</tr>
<tr>
<td>AUTO 78B</td>
<td>Automotive Writing and Shop Manager</td>
<td>2.0</td>
</tr>
<tr>
<td>AUTO 79A</td>
<td>Automotive Writing and Shop Manager</td>
<td>2.0</td>
</tr>
<tr>
<td>AUTO 79B</td>
<td>Automotive Writing and Shop Manager</td>
<td>2.0</td>
</tr>
<tr>
<td>AUTO 80</td>
<td>Automotive Writing and Shop Manager</td>
<td>2.0</td>
</tr>
</tbody>
</table>

This course provides the student with the knowledge necessary to diagnose and repair motorcycle electrical and fuel systems. Information covered will include electrical and fuel system components, and engine performance analysis. Three lecture, three laboratory hours per week. (No prerequisite) This course may be taken four times.
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 Automotive Computers, Electronics, and Electrical Systems 4.0 Units
(formerly AUTO 119)
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. (Prerequisite: AUTO 79 or equivalent) This course may be taken four times.

AUTO 81 Automotive Computer Systems 2.5 Units
(formerly AUTO 67)
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. (Prerequisite: Auto 79 or Auto 83A) This course may be taken four times.

AUTO 82 Automotive Electrical Repair 4.0 Units
(formerly AUTO 93B)
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. (Prerequisite: Auto 79 or Auto 83A) This course may be taken four times.

AUTO 83 Introduction to Smog Check Referee Technology and Basic Business Skills 4.0 Units
(formerly AUTO 59)
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 Fundamental Clean Air Emissions 4.0 Units
(formerly AUTO 60A)
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 California Clean Air Emissions
(formerly AUTO 60B) 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 pre-conditioning 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 Car Course 4.0 Units
(formerly AUTO 60D)
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 pre-conditioning 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 Enhanced Area California Clean Air Car Course 1.5 Units
(formerly AUTO 61)
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, and 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 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.
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 85A</td>
<td>Advanced Engine Performance</td>
<td>2.0</td>
<td>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.</td>
</tr>
<tr>
<td>AUTO 85B</td>
<td>Automotive Electrical and Electronic Systems</td>
<td>1.0</td>
<td>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.</td>
</tr>
<tr>
<td>AUTO 85C</td>
<td>Automotive Electrical/ Electronic Systems Repair</td>
<td>4.0</td>
<td>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.</td>
</tr>
<tr>
<td>AUTO 85D</td>
<td>Introduction to Computer Diagnostic II Systems</td>
<td>1.0</td>
<td>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.</td>
</tr>
<tr>
<td>AUTO 88</td>
<td>Compressed Natural Gas Systems</td>
<td>4.0</td>
<td>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.</td>
</tr>
<tr>
<td>AUTO 89</td>
<td>Electric Vehicle Design and Production</td>
<td>2.0</td>
<td>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. Three lecture hours, three laboratory hours per week. (No prerequisite) This course may be taken three times.</td>
</tr>
<tr>
<td>AUTO 89A</td>
<td>Electric Vehicle Design and Maintenance</td>
<td>4.0</td>
<td>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 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.</td>
</tr>
<tr>
<td>AUTO 89B</td>
<td>Electric Vehicle Design and Construction</td>
<td>4.0</td>
<td>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 four times.</td>
</tr>
<tr>
<td>AUTO 91A</td>
<td>Auto Body Repair I</td>
<td>4.0</td>
<td>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.</td>
</tr>
<tr>
<td>AUTO 91B</td>
<td>Auto Body Repair II</td>
<td>5.0</td>
<td>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 four times.</td>
</tr>
<tr>
<td>AUTO 91L</td>
<td>Automotive Auto Body Laboratory</td>
<td>1.0</td>
<td>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.</td>
</tr>
<tr>
<td>AUTO 92</td>
<td>Auto Body Damage Estimating I</td>
<td>1.0</td>
<td>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-</td>
</tr>
</tbody>
</table>
AUTO 93 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 Leadership and Public Event Planning  
(formerly AUTO 70)  .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 Automotive Air Conditioning and Heating Systems  
(formerly AUTO 117)  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 determined 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 Practical and Critical Reading  
(formerly BSKL 110A)  1.0 Unit  
A review of simple reading skills emphasizing the ability to distinguish between main ideas and supporting details. The course also introduces recognition of development patterns in paragraphs as well as longer pieces of writing and the ability to distinguish fact from opinion and stated main ideas from implied main ideas. This course will not apply to the Associate Degree. (No prerequisite) This course may be taken three times.  

BSKL 10B Word Skills in Reading and Writing  
(formerly BSKL 110B)  1.0 Unit  
A review of spelling, word choice, parts of speech, and punctuation including using plurals, suffixes and prefixes, basic rules for capitalization, the role of verbs, and using context clues. This course also offers instruction in the use of the dictionary and introduces comma rules and end punctuation rules. This course will not apply to the Associate Degree. (No prerequisite) This course may be taken three times.  

BSKL 10C Sentence Skills  
1.0 Unit  
(formerly BSKL 110C)  
This course provides a review of the elements of the sentence. The course explains common problems that occur in sentence construction and how to avoid them, including run-ons and fragments. This course will not apply to the Associate Degree. (No prerequisite) This course may be taken three times.  

BSKL 11A Paragraph Skills  
1.0 Unit  
(formerly BSKL 111A)  
An introduction to topic sentences and paragraph development. Students will recognize and use cause and effect as well as comparison, contrast, and description. They will make paragraphs work in logical order to reflect the writer’s main idea. Students...
will identify relevant information and revise to cut irrelevant information. This course will not apply to the Associate Degree. (No prerequisite) This course may be taken three times.

BSKL 11B Writing Invention and Revision
(formerly BSKL 111B) 1.0 Unit
This course introduces the concept of the writing process with concentration on invention and revision, working on paragraphs to short (one page) essays. The course is designed to help students discover their thoughts and translate these thoughts accurately into writing. This course will not apply to the Associate Degree. (No prerequisite) This course may be taken three times.

BSKL 11C Writing and Editing Skills
(formerly BSKL 111C) 1.0 Unit
This course introduces concepts and practices of revising at the sentence level, checking for sentence, word choice and punctuation errors; clarity is the primary goal. This course will not apply to the Associate Degree. (No prerequisite) This course may be taken three times.

BSKL 12A Math: Operations with Whole Numbers
(formerly BSKL 112A) 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 Rational Numbers
(formerly BSKL 112B) 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.
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 111)

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  4.0 Units
(formerly BIOLOGY 11)
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. Offered Fall, Spring, Summer. (No prerequisite)

BIOL 113  Biology of Sexually Transmitted Diseases 2.0 Units
(formerly BIOLOGY 13)
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. Offered Spring. (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 Wildflowers 3.0 Units
(formerly BIOLOGY 20)
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  3.0 Units
(formerly BIOLOGY 121)
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. Three lecture, three laboratory hours per week. CSU, UC. (No prerequisite)

BIOL 126  Natural History of the Mojave Desert 3.0 Units
(formerly BIOLOGY 16)
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. Three lecture hours per week. CSU. Offered Spring. (No prerequisite. Grade Option)

BIOL 127  Identification and Study of Birds of the Mojave Desert and Adjacent Mountains 3.0 Units
(formerly BIOLOGY 17)
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)

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BIOL 128  Identification and Study of 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 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 148 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 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 Biology  (formerly BIOLOGY 3)  Population and Environmental Biology (Biology 1+2+3 = 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 biology 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 201 or CHEM 100 as prerequisite or corequisite)

BIOL 211  Human Anatomy  (formerly ANATOMY 1)  (CAN BIOL 10)  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 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 or 111 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, 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, UC. Offered Fall, Spring, Summer. (Prerequisite: BIOL 211 completed with a "C" grade or better.)

BIOL 215B  Human Gross Anatomy, Back 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, UC. Offered Fall, Spring, Summer. (Prerequisite: BIOL 211 completed with a "C" grade or better.)
Biol 215C Human Gross Anatomy, 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, UC. 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 protista, 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 or 111; 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 201; and one college biology class equivalent to BIOL 201, 100, 109 or 111; and BIOL 211 or 212, all with a grade of "C" or better.)

Biol 232 Human Physiology 4.0 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, 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 211, all with a grade of "C" or better.)

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 Management (formerly B AD 55) 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 Business (formerly B AD 60) 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 Taxes IA 3.0 Units
(formerly B AD 70)
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 Taxes IB 3.0 Units
(formerly B AD 71)
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 Procedures and Taxpayer Bill of Rights 3.0 Units
(formerly B AD 72)
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 glo-
bal dimensions of business, the various forms of business own-
ership, teamwork, securities, ethics and social responsibility,
and economic challenges facing the United States. Three lec-
ture 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 pro-
prietorship. Concepts and principles are developed in a logi-
cal 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 prac-
tice set which includes the recording, analyzing, and summa-
izing 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 corpo-
rate organizations, and study of the theory and practices unique
to these more complex business forms. Manufacturing cost,
branch and departmental accounting, budgeting, special re-
ports 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 state-
ments. The course focuses on both service enterprises and mer-
chandise enterprises. Business transactions are recorded, ana-
yzed, 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 part-
nership 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. Spe-
cial emphasis is placed on managerial accounting principles
of the job order cost system, process cost systems, and budget-
ing and standard cost systems. Three lecture hours per week.
CSU, UC (UC credit limitation). Offered Fall, Spring. (No pre-
requisite)

BADM 105  Managerial Accounting  3.0 Units
Emphasizes the use of accounting information to implement
management’s decision making and organizational control re-
sponsibilities. Presents an overview of product costing, respon-
sibility 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 lec-
ture 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 mi-
crocomputers 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 con-
trol, payroll, taxation, and reporting and graphics presenta-
tions. Students successfully completing both B AD 4A and 4B
should be fully qualified to take full control of any computer-
ized 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
(formerly B AD 5)  3.0 Units
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 lec-
ture 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 hu-
man 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, busi-
ness ethics and social responsibility, motivation, communica-
tion and teamwork, globalization, and quality control are a few
of the topics covered. This course is designed for the manage-
ral 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 includ-
ing a survey of the major functions, i.e., policy making, per-
sonnel administration, budgeting, administrative responsibil-
ity. 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  
(formerly B AD 11)  3.0 Units  
An introductory course in retail management. Field trips may be included. Three lecture hours per week. CSU. Offered Spring. (No prerequisite)

BADM 114    Sales  
(formerly B AD 12)  3.0 Units  
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  
(formerly B AD 18)  3.0 Units  
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  
(formerly B AD 42)  3.0 Units  
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

BADM 138    Cooperative Education  
(formerly B AD 38)  
See Cooperative Education listing (1-8 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: Beginning DOS A/B/C  
(formerly BET 46)  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: Beginning DOS A  
(formerly BET 46A)  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: 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: 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: 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  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/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/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/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
BET 103C (formerly BET 3C) Beginning Word Processing/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 (formerly BET 3D) Beginning Word Processing/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 (formerly BET 4) Beginning Word Processing/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 (formerly BET 4A) Beginning Word Processing/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 (formerly BET 4B) Beginning Word Processing/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 (formerly BET 4C) Beginning Word Processing/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 (formerly BET 4D) Beginning Word Processing/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

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

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

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 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 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 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: Excel for Windows ABC  
(formerly BET 12)  
1.0 Unit  
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 112B Spreadsheet: Excel for Windows B  
(formerly BET 12B)  
1.0 Unit  
This second 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 112C Spreadsheet: Excel for Windows C  
(formerly BET 12C)  
1.0 Unit  
This third 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 112B) This course may be taken three times.

BET 114A Spreadsheet: Quattro 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  
(formerly BET 17A)  
1.0 Unit  
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  
(formerly BET 17B)  
1.0 Unit  
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  
(formerly BET 17C)  
1.0 Unit  
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  
(formerly BET 18)  
3.0 Units  
This course is designed to teach the student advanced concepts and business skills using Access, including working with advanced queries, briefcase replication, macros and use of Visual Basic for applications code. CSU. Offered Fall, Spring, Summer (No prerequisite) This course may be taken three times.

BET 118A Database: Access A  
(formerly BET 18A)  
1.0 Unit  
Introduces database concepts and skills. Students will learn to manage and organize database files with extensive hands-on practice at individual workstations. CSU. Offered Fall, Spring, Summer (No prerequisite) This course may be taken three times.

BET 118B Database: Access B  
(formerly BET 18B)  
1.0 Unit  
This second unit in database management will feature advanced querying, storing and organizing business information. CSU. Offered Fall, Spring, Summer (No prerequisite) This course may be taken three times.

BET 118C Database: Access C  
(formerly BET 18C)  
1.0 Unit  
This course is designed to teach the student advanced concepts and business skills using Access, including working with advanced queries, briefcase replication, macros and the use of Visual Basic for applications code. CSU. Offered Fall, Spring, Summer (Prerequisite: V 118B) This course may be taken three times.

BET 122 Intermediate Keyboarding/Typing A/B/C  
(formerly BET 22)  
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: BUAD 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
(formally 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BET 134</td>
<td>Condensed Word Processing</td>
<td>1.0</td>
<td>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)</td>
</tr>
<tr>
<td>BET 135</td>
<td>Desktop Publishing: PageMaker</td>
<td>2.0</td>
<td>formerly BET 35 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)</td>
</tr>
<tr>
<td>BET 136</td>
<td>Career Applications for Word Processing</td>
<td>3.0</td>
<td>formerly BET 36 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)</td>
</tr>
<tr>
<td>BET 138</td>
<td>Cooperative Education</td>
<td>1.0</td>
<td>formerly BET 38 See Cooperative Education listing (1-8 units). CSU</td>
</tr>
<tr>
<td>BET 139A</td>
<td>Advanced Word Processing/Applications A</td>
<td>1.0</td>
<td>formerly BET 39A 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)</td>
</tr>
<tr>
<td>BET 139B</td>
<td>Advanced Word Processing/Applications B</td>
<td>1.0</td>
<td>formerly BET 39B 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)</td>
</tr>
<tr>
<td>BET 139C</td>
<td>Advanced Word Processing/Applications C</td>
<td>1.0</td>
<td>formerly BET 39C 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)</td>
</tr>
<tr>
<td>BUET 141A</td>
<td>Operating System: Windows A</td>
<td>1.0</td>
<td>formerly BET 41A 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.</td>
</tr>
<tr>
<td>BET 141B</td>
<td>Operating System: Windows B</td>
<td>1.0</td>
<td>formerly BET 41B 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.</td>
</tr>
<tr>
<td>BET 141C</td>
<td>Operating System: Windows C</td>
<td>1.0</td>
<td>formerly BET 41C This third unit includes features using program manager and Windows interface. CSU. (Prerequisite: BET 141B) This course may be taken three times.</td>
</tr>
<tr>
<td>BET 142</td>
<td>Office Technologies and Procedures</td>
<td>3.0</td>
<td>formerly BET 42 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.)</td>
</tr>
<tr>
<td>BET 143</td>
<td>Business English</td>
<td>3.0</td>
<td>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)</td>
</tr>
<tr>
<td>BET 145</td>
<td>Communications for Business</td>
<td>3.0</td>
<td>formerly BET 45 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)</td>
</tr>
<tr>
<td>BET 148</td>
<td>Special Topics</td>
<td>Variable</td>
<td>formerly BET 48  See Special Topics listing (Variable units).</td>
</tr>
<tr>
<td>BET 149</td>
<td>Independent Study</td>
<td>1.0</td>
<td>formerly BET 49  See Independent Study listing (1-3 units).</td>
</tr>
<tr>
<td>BESC 138</td>
<td>Cooperative Education</td>
<td>1.0</td>
<td>formerly BUS ESC 38 See Cooperative Education listing (1-8 units). CSU</td>
</tr>
<tr>
<td>BESC 141</td>
<td>Escrow I, Principles (Basic)</td>
<td>3.0</td>
<td>formerly BUS ESC 41 Methods and techniques of escrow procedures for various types of business transactions with emphasis on real estate,</td>
</tr>
</tbody>
</table>
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 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 Origination (formerly BUS RE 54) 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 Mortgage Processing (formerly BUS RE 55) 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 3.0 Units
(formerly BUS RE 32)
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 Applications 3.0 Units
(formerly BUS RE 33)
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 3.0 Units
(formerly BUS RE 34B)
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 3.0 Units
(formerly BUS RE 35)
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 3.0 Units
(formerly BUS RE 37)
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 128 Cooperative Education 3.0 Units
(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 3.0 Units
(formerly BUS RE 40)
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)
CAREER DEVELOPMENT

CRDV 52  Career Development Growing on the Job  1.0 Unit
(formerly CAR DEV 52)
Course content will include: understanding your personality and interpersonal relationships, and being good at being new. One lecture hour per week. Offered Fall, Spring. (No prerequisite)

CRDV 53  Career Development/Integrating Work and Life  1.0 Unit
(formerly CAR DEV 53)
Course content will include: planning your fiscal fitness program, looking forward to change, and mapping your life line. One lecture hour per week. Offered Fall, Spring. (No prerequisite)

CRDV 54  Career Development/Developing Leadership Abilities  1.0 Unit
(formerly CAR DEV 54)
Course content will include: designs of management, analyzing new careers, and stress management. One lecture hour per week. Offered Fall, Spring. (No prerequisite)

CRDV 55  Career Development/Successful Job Hunt  0.5 Unit
(formerly CAR DEV 55)
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. Offered Fall, Spring. (No prerequisite. Credit/No Credit)

CRDV 56  Career Development/Resume Writing and Job Applications  0.5 Unit
(formerly CAR DEV 56)
Students will be introduced to gathering information from and posting resumes to the Internet. Offered Fall, Spring. (No prerequisite. Credit/No Credit) This course may be taken four times.

CRDV 57  Career Development/Employment Interviews  0.5 Unit
(formerly CAR DEV 57)
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/Decision-Making  0.5 Unit
(formerly CAR DEV 60)
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/Getting the Job  0.5 Unit
(formerly CAR DEV 61)
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/Performing on the Job  0.5 Unit
(formerly CAR DEV 62)
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  1.0 Unit
(formerly CHEM 101)
Students are oriented to the resources available on a community college campus, tried 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 \textit{ab initio} and semiempirical 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
A comprehensive survey of general chemistry for students who have not had chemistry or who have not had chemistry recently. The fundamental principles of chemistry, including structure and classification; a brief introduction to organic chemistry focusing on applications to society. Satisfies general education and Allied Health requirements for a one-semester, introductory chemistry course. 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
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 restau-

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
(formally 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 202 General Chemistry (formerly CHEM 1B) (CAN CHEM 4) 5.0 Units
Using atomic theory as developed in Chemistry 1A 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 206 Introductory Chemistry II: Organic Chemistry 4.0 Units
(formally CHEM 6)
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: 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 282 Organic Chemistry 5.0 Units
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 1-30 are intended for professional development.

CHDV 1 Mentor Seminar A 0.5 Unit
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
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 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 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
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 lec-
tecture 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 Enriching the Early Childhood
(formerly CLDDEV 106H) 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 Enriching the Early Childhood
(formerly CLDDEV 106I) 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 19 Advanced Business Practices
(formerly CLDDEV 110) for Family Child Care 0.5 Unit
Family Child Care Providers attend monthly seminars to explore issues related to business practices and professional duties including but not limited to, computerized business records, writing contracts, taxes, insurance, marketing and recruiting, licensing, food subsidy program, hiring, leadership and advocacy. Seminar content will be individualized to meet the needs of participants. One-half hour lecture per week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit) This course may be repeated.
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. See cross listing for MATH 70. Two lecture, three laboratory hours per week. (No prerequisite. Grade Option) This course may be taken four times.

CHDV 71 Guided Discoveries Practicum
(formerly CLDDEV 71)
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. See cross listing for MATH 71. Six laboratory hours per week. (No prerequisite. Grade Option) This course may be taken four times.

CHDV 106 Child, Family and Community
(formerly CLDDEV 6)
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 Introduction to Early Childhood
(formerly CLDDEV 10)
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 Infant and Toddler Caregiving
(formerly CLDDEV 11)
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 Family Day Care Provider
(formerly CLDDEV 15)
3.0 Units
This course will address the many factors involved in providing quality care in one’s home. This course will cover how to set up a safe, healthy and stimulating environment that meets the development 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)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHDV 137</td>
<td>The Child with Special Needs</td>
<td>3.0</td>
<td>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)</td>
</tr>
<tr>
<td>CHDV 138</td>
<td>Cooperative Education</td>
<td></td>
<td>See Cooperative Education listing (1-8 units). CSU</td>
</tr>
<tr>
<td>CHDV 141</td>
<td>Basics of School-Age Child Care</td>
<td>3.0</td>
<td>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)</td>
</tr>
<tr>
<td>CHDV 142</td>
<td>Child Health, Safety, and Nutrition</td>
<td>3.0</td>
<td>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. (No prerequisite)</td>
</tr>
<tr>
<td>CHDV 143</td>
<td>Introduction to the High/Scope Curriculum</td>
<td>3.0</td>
<td>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. Offered Fall. (No prerequisite)</td>
</tr>
<tr>
<td>CHDV 144</td>
<td>Math and Science Experiences for Young Children</td>
<td>2.0</td>
<td>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. (No prerequisite)</td>
</tr>
<tr>
<td>CHDV 145</td>
<td>Music/Movement Experiences for Young Children</td>
<td>2.0</td>
<td>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. (No prerequisite)</td>
</tr>
<tr>
<td>CHDV 146</td>
<td>Child Growth and Development</td>
<td>3.0</td>
<td>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.</td>
</tr>
<tr>
<td>CHDV H146</td>
<td>Honors Child Growth/Development</td>
<td>4.0</td>
<td>A study of the child from conception through adolescence; cognitive, physical and social emotional development. Guidance for the developmental stages will be included. Four lecture hours per week. CSU (Prerequisite: Enrollment in honors course requires acceptance into the Honors Program or prior approval from the instructor.)</td>
</tr>
<tr>
<td>CHDV 148</td>
<td>Special Topics</td>
<td></td>
<td>See Special Topics listing (Variable units). CSU</td>
</tr>
<tr>
<td>CHDV 149</td>
<td>Independent Study</td>
<td></td>
<td>See Independent Study listing (1-3 units). CSU</td>
</tr>
<tr>
<td>CHDV 220</td>
<td>The Mentor Teacher /Adult Supervision</td>
<td>2.0</td>
<td>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 nine weeks. CSU. (No prerequisite)</td>
</tr>
<tr>
<td>CHDV 239A</td>
<td>Administration of Children’s Programs I</td>
<td>3.0</td>
<td>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.)</td>
</tr>
<tr>
<td>CHDV 240</td>
<td>Administration of Children’s Programs II</td>
<td>3.0</td>
<td>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.)</td>
</tr>
</tbody>
</table>
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  Novell NetWare 6 Basic Administration (formerly CIS 74)  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: 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 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)

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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 Technology for Educators  (formerly CIS 6)  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 for Educators  (formerly CIS 7)  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 122  Fundamentals of Database 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 123  Introduction to Operating Systems: UNIX  (formerly CIS 23)  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 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 133  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 136  Introduction to the Internet/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 completing 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  2.0 Units  
(formerly CIS 38)  
See Cooperative Education listing (1-8 units). CSU

CIS 139 Windows XP for Power Users  4.0 Units  
(formerly CIS 39)  
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 setup will be addressed. Three lecture, three laboratory hours per week. CSU. (No prerequisite)

CIS 201 C++ Module A: An Introduction to Programming  4.0 Units  
(formerly CIS 32A)  
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: Understanding the Language and OOP  4.0 Units  
(formerly CIS 32B)  
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 programming 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 211A Advanced VB Programming Module A: Advanced Topics  4.0 Units  
(formerly CIS 13)  
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 133. Recommended: CIS 104) This course may be taken three times.

CIS 211B Advanced VB Programming Module B: Database Programming  4.0 Units  
(formerly CIS 14)  
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 133 and CIS 122, or equivalent) This course may be taken three times.

CIS 211C Advanced VB Programming Module C: Web Programming  4.0 Units  
(formerly CIS 15)  
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 Windows 2000 Server Administration
(formerly CIS 41)  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 250  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 250A 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  UNIX System Administration A
(formerly CIS 45A)  2.0 Units
The second course teaching the management of 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 287A  Structured Query Language A
(formerly CIS 45B)  2.0 Units
First module of manipulating 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 280)

CIS 288A  Oracle A
(formerly CIS 47A)  2.0 Units
An introduction to using the Oracle relational database management system. This is the first of two modules. Topics include: working with multiple tables, database design, data manipulation, and querying databases. Two lecture, six laboratory hours per week for nine weeks. CSU. (Prerequisite: CIS 280; Recommended: CIS 281)

CIS 288B  Oracle B
(formerly CIS 47B)  2.0 Units
This second course on Oracle continues instruction on the Oracle relational database management system. Topics include: working with 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 290A) 

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. (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  AutoDesk VIZ 3.0 Units
This course will cover advanced architectural walkthroughs and still renderings with AutoDesk VIZ. 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 two 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 develop 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 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 an 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.

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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  (No prerequisite)

CIDG 103  Blueprint Reading for Construction  3.0 Units  
(formerly CIDG 3)  
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  3.0 Units  
(formerly CIDG 4)  
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  3.0 Units  
(formerly CIDG 8)  
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  (No prerequisite)

CIDG 110  Two Dimensional AutoCAD  3.0 Units  
(formerly CIDG 6A)  
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 Three Dimensional CADD  3.0 Units  
(formerly CIDG 6C)  
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

CIDG 138  Cooperative Education  3.0 Units  
(formerly CIDG 38)  
See Cooperative Education listing (1-8 units). CSU

CIDG 148  Special Topics  3.0 Units  
(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  3D Studio Max I  3.0 Units  
(formerly CIDG 26A)  
The student will learn the basics in 3D modeling using transforms and modifiers, how to create and apply static and animated materials, manipulation of particle systems (rain, snow, etc.), key framing and animation editing, forward and inverse kinematics, lights and camera control, special effects and the different levels of rendering. Two lecture hours, three laboratory hours per week. (No prerequisite) This course may be taken two times.

CIDG 210  Advanced Two Dimensional AutoCAD  3.0 Units  
(formerly CIDG 6B)  
This course will cover 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  3.0 Units  
(formerly CIDG 23B)  
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  3.0 Units  
(formerly CIDG 25B)  
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 Design I  3.0 Units  
(formerly CIDG 53A)  
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 AutoCAD/AutoDesk Architectural program. Two lecture hours, three laboratory hours per week. Offered Fall. (Prerequisite: CIDG 110.)
CIDG 251 Architectural Computer Aided 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 AutoCAD program. Two lecture hours, three laboratory hours per week. Offered Spring. (Prerequisite: CIDG 250) This course may be taken two times.

CIDG 260 3D Studio Max II 3.0 Units
(Formerly CIDG 26B)
This course will cover the more advanced modeling and animation features of 3D Studio Max including NURBS modeling, advanced lofting, animating with Character Studio, complex aspects of the Materials Editor, Plug-Ins, trackview in depth, Bezier controllers, lighting and video post. Course will prepare students to work in the entertainment, forensic, architectural, and computer gaming industries. Two lecture hours, three laboratory hours per week. (Prerequisite: CIDG 160.) This course may be taken two times.

CIDG 261 3D Studio Max III 3.0 Units
(Formerly CIDG 26C)
This course will cover advanced animation with 3D Studio Max including animating with controllers, expressions, multiple modifiers, cameras and Character Studio. Facial animation, compositing and editing and Video Post special effects will also be covered. Course will prepare students to work in the entertainment, forensic, architectural, and computer gaming industries. Two lecture hours, three laboratory hours per week. CSU. (Prerequisite: CIDG 260) This course may be taken two times.

CIDG 280 Geographical Information System I (Geographical Information System (GIS)) 3.0 Units
(Formerly CIDG 27A)
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. (No prerequisite) This course may be taken four times. CSU

CIDG 281 Geographical Information System II (Geographical Information System (GIS)) 3.0 Units
(Formerly CIDG 27B)
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 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 101 Careers in Construction 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. Three lecture hours per week. CSU. (No prerequisite.)

CT 103 Construction Management 3.0 Units
(Formerly CT 3)
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, Fall. (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 3.0 Units
(Formerly CT 6)
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
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  3.0 Units  
(formerly CT 8)  
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 other Summer. (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  3.0 Units  
(formerly CT 10)  
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  3.0 Units  
(formerly CT 11A)  
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  3.0 Units  
(formerly CT 11B)  
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  3.0 Units  
(formerly CT 12)  
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  3.0 Units  
(formerly CT 13)  
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 Field Inspection  3.0 Units  
(formerly CT 15)  
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. Offered every 4th semester. (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 4.0 Units**  
(formerly CT 22A)  
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)

**CT 122B Commercial Refrigeration 4.0 Units**  
(formerly CT 22B)  
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) This class may be taken three 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 Construction 4.0 Units**  
(formerly CT 25)  
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 1.5 Units**  
(formerly CT 26)  
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. 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 4.0 Units**  
(formerly CT 30)  
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) This course may be taken two times.

CTMF 126B  Advanced Woodworking  3.0 Units
(formerly CTMANF 26B)
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 126A) This course may be taken for a total of four times.

CTMF 127  Production Woodworking  3.0 Units
(formerly CTMANF 27)
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) This course may be taken for a total of four times.

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) 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  3.0 Units
(formerly CTMANF 30B)
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 4.0 Units
(formerly CTMANF 40)
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 Laboratory 2.0 Units
(formerly CTMANF 41)
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. CSU (No prerequisite. Grade Option.) This course may be taken three times.

CTMT 120 Residential Maintenance and Repair 4.0 Units
(formerly CTMANT 20)
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 Light Vehicles 3.0 Units
(formerly CTMANT 29)
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 3.0 Units
(formerly CTPBWK 11)
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 3.0 Units
(formerly CTPBWK 12)
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 3.0 Units
(formerly CTPBWK 14)
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 3.0 Units
(formerly CTPBWK 15)
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 lecture hours, 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 Keynesian 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)
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 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
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 3.0 Units
See Cooperative Education (1 - 8 units). CSU

EDUCATIONAL TECHNOLOGY

ETEC 51 Introduction to Educational 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 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 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 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  2.0 Units
(formerly ETEC 21)  for Educators
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/asyncronous 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. 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  2.0 Units
(formerly ELCT 107)  Preparation
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 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 77A. Corequisite: ELCT 78)

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 Interworking Packet Exchange (IPX) address encapsulation types, Interworking Packet Exchange (IPX) 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 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, over-
ELCT 78D. Cisco’s Networking Academy IV) This course may be taken four times.

ELCT 79A Microsoft Certified Systems Engineer 4.0 Units
This is the first in 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 Advanced Power Management (APM), encrypt data by using Encrypting File 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 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 99 Telecommunications: Microwave Communications 3.0 Units
This high technology laboratory course is designed to provide a broad background in the use of microwave devices, including 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 electric and magnetic fields, 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, Summer. (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 bipolar 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 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 actuating systems. Topics include microprocessor basics, buses, address decoding, 68HC11 chip structure and internal features, instruction timing, switch decoding, interfacing with displays and adapters, 1/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 134  Solid State Circuit Analysis  4.0 Units
(formerly ELCT 34)
Course focuses on linear-integrated circuits and their use in
the design of circuits and instruments. Topics include opera-
tional amplifier theory and linear circuits, nonlinear OP-Amp
circuits, regulated power supplies, oscillators and timers, thy-
ristors, frequency domain, and frequency mixing. Three lec-
ture, three laboratory hours per week. CSU. Offered Spring.
(No prerequisite)

ELCT 138  Cooperative Education  4.0 Units
(formerly ELCT 38)
See Cooperative Education (1 - 8 units). CSU

ELCT 148  Special Topics  3.0 Units
(formerly ELCT 48)
See Special Topics listing (Variable units). CSU

ENGLISH

ENGL 6  Basic Writing and Reading  4.0 Units
(formerly ENGL 166)
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 by using literature, the media and the visual arts as
both subject matter and models for beginning writers. May be
repeated for a total of eight units. 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)
A semi-individualized reading course designed so that each stu-
dent begins work at a suitable level. Students will develop ability
to comprehend, analyze, evaluate, and respond to written
works, and develop proficiency in vocabulary building and spell-
ing skills. Three lecture hours per week. This course will not apply
to the Associate Degree. Offered Fall, Spring, Summer. (No pre-
requisite. 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
da ll segments of the college community to develop their writ-
ing skills. Emphasis is on the one-to-one tutorial approach, com-
puter-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, in-
cluding planning, organizing, composing short essays, reading
a variety of college preparatory texts, and editing for punc-
tuation, 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 pro-
gram. A practical course supplementing the process and func-
tion of expository writing, including a review of spelling, punc-
tuation, diction, usage, and sentence structure. One-half lec-
ture, 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, criti-
cal 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 as-
essment.) 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 ob-
erving, 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. (Pre-
requisite: ENGL 101 with a grade of “C” or better. Grade Op-
ton) 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 tu-
ators in one-on-one conferences, discuss tutoring theory, and
observe tutors in the Writing Center and/or composition in-
structors in the classroom. Though this class is meant to pre-
pare students to tutor writing, any student wishing to improve
his/her writing skills will benefit from this course. One lec-
ture 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  4.0 Units
(formerly ENGL 1A) (CAN ENGL 2)
Principles and methods of research and expository writing.
Analytical reading of source materials and writing of exposito-
ry 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 as-
essment.)

ENGL H101  Honors Composition and Reading  5.0 Units
(formerly ENGL H1A)
Principles and methods of expository writing. Analytical read-
ing of source materials and writing of expository papers. Hon-
ors seminar will deepen students’ insights. Five lecture hours

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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 10 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 Literature
(formerly ENGL H1B)
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 and Composition
(formerly ENGL H2)
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 Spring and Fall. (Prerequisite: ENGL 101 with a grade of “C” or better. ENGL 102 recommended)

ENGL 112 Technical Writing
(formerly ENGL 12)
3.0 Units
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
(formerly ENGL 16)
3.0 Units
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 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 Study Skills
(formerly ENGL 49)
3.0 Units
Formerly College Reading.

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. Offered Fall, Spring, Summer. (Prerequisite: ENGL 59 with a grade of “C” or better)

ENGL 210 Fiction Writing
(formerly ENGL 10)
3.0 Units
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
(formerly ENGL 20)
3.0 Units
Twentieth century literature, chiefly of England and the United States, emphasizing novels and short stories. Three lecture hours per week. CSU, UC. Offered Spring semester every other year starting Spring 1991. (Prerequisite: ENGL 102 with a grade of “C” or better)

ENGL 225 Poetry
(CAN ENGL 20) 3.0 Units
British and American poetry with consideration of versification, structure, imagery, diction, themes, and genres. Three lecture hours per week. CSU, UC. Offered Fall semester every other year starting Fall 1990. (Prerequisite: ENGL 102 with a grade of “C” or better)
ENGL 230 Survey of American Literature 1600-1865 (formerly ENGL 30A) 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. Offered Fall semester every third year starting Fall 1991. (Prerequisite: Completion of ENGL 102 with a grade of “C” or better)

ENGL 231 Survey of American Literature 1865 to Present (formerly ENGL 30B) 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. Offered Spring semester every third year starting Spring 1992. (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 (formerly ENGL 35) 3.0 Units
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 (formerly ENGL 40A-B) 3.0-3.0 Units
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. ENGL 241 offered Spring semester every third year starting Spring 1991. (Prerequisite: ENGL 102 with a grade of “C” or better)

ENGL 245 Survey of English Literature (formerly ENGL 46A) 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. Offered Fall semester every third year starting Fall 1992. (Prerequisite: ENGL 102 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. Offered Spring semester every other year starting Spring 1991. (Prerequisite: ENGL 102 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 22 Speaking and Listening Skills 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 and Writing 6.0 Units
This course focuses on fundamental reading and writing skills for ESL students who have a basic knowledge of common English words and phrases. Students read short, simplified narrative passages. Reading skills include understanding new vocabulary in context and scanning. Students write simple sentences and brief paragraphs on familiar topics. This course will not apply to the Associate Degree. Six lecture hours per week. (Prerequisite. Successful completion of AENG 10.1 and 10.2, or a minimum score of 21 on the ESL assessment. Grade option) This course may be taken four times.
This course focuses on how students can continue improving their speaking and listening skills in the workplace, including making complaints, confronting, and discussing and reaching agreement. This course will not apply to the Associate Degree. Six lecture hours per week for one week. (Prerequisite. Successful completion of AENG 10.1 and 10.2, or a minimum score of 21 on the ESL assessment. Grade option) This course may be taken four times.

ESL 27  
Speaking and Listening Skills  
(formally ESL 116D)  
in the Workplace  
0.5 Unit
This is the fourth 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 in the workplace, including understanding emergency procedures, asking permission, and making small talk. 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 28  
Speaking and Listening Skills  
(formally ESL 116C)  
for Learning at Work  
0.5 Unit
This is the third 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 starting a job, including understanding directions and procedures, how to ask for repetition and clarification, and describing things such as tools and machines. This course will not apply to the Associate Degree. Four lecture, twelve laboratory hours per week for one week. (No prerequisites. 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 29  
Speaking and Listening Skills  
(formally ESL 116B)  
for Job Interviewing  
0.5 Unit
This is the second 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 interview, including appropriate assertiveness, asking and answering interview questions, responding to job offers, and follow-up strategies. 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. Credit Option) This course may be taken four times.

ESL 30  
Speaking and Listening Skills  
(formally ESL 116A)  
for Job Situations  
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 starting a job, including understanding directions and procedures, how to ask for repetition and clarification, and describing things such as tools and machines. This course will not apply to the Associate Degree. Four lecture, twelve laboratory hours per week for one week. (No prerequisites. 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 31  
Intermediate Writing I  
3.0 Units  
(formally 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  
(formally 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  
(formally 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 recommended 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 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 35  Intermediate Speaking and Listening 5.0 Units
This course focuses on speaking and listening skills for students at an 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. This course will not apply to the Associate degree. Five lecture hours per week. (Prerequisite: Successful completion of ESL 25 and 23, or minimum score of 31 on the ESL assessment. Grade Option.) This course may be taken three times.

ESL 36  High Intermediate Speaking and Listening 5.0 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. This course will not apply to the Associate degree. Five lecture hours per week. (Prerequisite: Successful completion of ESL 35, or minimum score of 40 on the ESL assessment. Grade Option.) This course may be taken three times.

ESL 37  Intermediate Grammar 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 38  High Intermediate Grammar 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 47  Advanced Grammar 3.0 Units
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 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 7**  First Responder - Medical 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, 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, 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 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. (Prerequisite: Must possess valid EMT I, State Fire Marshal’s certificate-State regulation. Credit/No Credit) This course may be taken four times.

**FIRE 9**  Fire Control III, Structural Fire 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 Fighting Techniques .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 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/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 19  Back Fire/Burn Out Safety (formerly FT 168.19) 0.5 Unit
This course will provide instruction to the fire fighter student in basic safety considerations and procedures when immediate and unplanned back firing or burning out of an area is deemed necessary for wildland fire control. CDF certified. Eight lecture hours per week for one week. This course will not apply to the Associate Degree. (Prerequisites: FIRE 80A. State mandated. Credit/No Credit) This course may be taken four times.

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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 per 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.

FTRE 21A  Firing Methods and Procedures
(formerly FT 121.1) 1.5 Units
This course will provide instruction to the fire fighter student about firing techniques and related firing devices used in wildland fire suppression. North West Coordinating Group certified. 24 lecture hours for one week. This course will not apply to the Associate Degree. (Prerequisites: FIRE 66, FIRE 80A. State mandated. Credit/No Credit) This course may be taken four times.

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. (Prerequisite: 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  
(Formerly FT 141)  
Fire Fighter Physical Agility 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  
(Formerly FT 111)  
Building Construction for 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  
(Formerly FT 50)  
Fire Service Supervision - 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 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  
(Formerly FT 51)  
Fire Service Supervision - 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  
(Formerly FT 52)  
Commanding the Initial Response 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  
(Formerly FT 53)  
Hazardous Materials First 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  
(Formerly FT 54)  
Fire Command 2E 2.0 Units  
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  
(Formerly FT 55)  
Fire Instructor 2A 2.5 Units  
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  
(Formerly FT 56)  
Fire Instructor 2B 2.5 Units  
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 59  
(Formerly FT 59)  
Basic Wildland Fire Fighter 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 59A  
(Formerly FT 59.1)  
Wildland Fire Fighter's Skills 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 con-
trol. Sixteen lecture and twenty-four laboratory hours per week for one week. (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 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 60E or employment within a recognized fire service agency at the rank of company officer or above. State Mandated. Credit/No Credit)

FIRE 60D  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. (No prerequisite)

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 (CFSITES) 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 60J  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. (Prerequisites: ICS-100, 200, 300/State mandated. Credit/No Credit) This course may be taken four times.

FIRE 60K  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. (Prerequisites: FIRE 66, FIRE 86, ICS-100, 200, 300/State Mandated. Credit/No Credit) This course may be taken four times.

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 60G. 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/  
Demobilization Unit Leader  
(formerly FT 68.10)  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  
Medical Technician (EMT)  
(formerly FT 68.11)  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 61I  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. (No prerequisite. Credit/No Credit)  

FIRE 61J  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. (Prerequisite: FIRE 66, FIRE 86, ICS-100, 200, 300/State mandated. Credit/No Credit) This course may be taken four times.  

FIRE 61K  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 66/State mandated. Credit/No Credit) This course may be taken four times.  

FIRE 63  Apparatus Driver/Operator IA  
(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 63A  Basic Fire Engine Operation  
(formerly FT 63.1)  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. (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 64  Apparatus Driver/Operator IB  
(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 2.0 Units
(formerly FT 60)
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 65H  Hand Crew Fire Fighter Skills Maintenance 1.5 Units
(formerly FT 60.2)
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. (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 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 Command 1.0 Unit
(formerly FT 66)
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 Fire Protection 3.0 Units
(formerly FT 69)
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 IA - Instructional Techniques Part I 2.0 Units
(formerly FT 70)
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 IB - Instructional Techniques Part 2 2.0 Units
(formerly FT 71)
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 IA - Command Principles for Company Officers 2.0 Units
(formerly FT 72)
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 IB - Hazardous Materials Command Principles for Company Officers 2.0 Units
(formerly FT 73)
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 73A  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 74  Fire Prevention IA - Fire Inspection 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 IB - 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 I - Supervision 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 76A  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 77  Investigation IA - Fire Cause 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 IC - Flammable 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 IB 2.0 Units
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 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 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 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 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 81A  EMT-ID, Defibrillation 0.5 Unit
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. (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 81B EMT-I, Continuing Education 0.5 Unit
(formerly FT 81.4) Retraining
This course provides the student with the information and skills development and testing requirements for re-qualification for Emergency Medical Technician 1 and qualifies for Continuing Education credit. Four lecture hours, twelve laboratory hours per week for one week. (Prerequisite: EMT-I. State and county mandated. Credit/No Credit.) This course may be taken four times.

FIRE 82 Hazardous Materials First Responder Awareness 0.5 Unit
(formerly FT 82) Recertification
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 Hazardous Materials First Responder Operational 1.5 Units
(formerly FT 80) Recertification
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 capacities permit. Twenty-four hours of lecture total. Offered Fall, Spring. (No prerequisite) This course may be taken four times.

FIRE 83 Fire Management 2C, Labor and Personnel Management 2.0 Units
(formerly FT 83) Recertification
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 Fire Command 2A-Command Tactics at Major Fires 2.0 Units
(formerly FT 84) Recertification
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 Fire Management 2A- Organizational Development and Human Relations 2.0 Units
(formerly FT 85) Recertification
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 Intermediate Incident Command System (ICS) 1.5 Units
(formerly FT 86) Recertification
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 Fire Management 2E 2.0 Units
(formerly FT 87) Recertification
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 88 Fire Command 2B-Management of Major Hazardous Materials 2.0 Units
(formerly FT 88) Recertification
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. (No prerequisite)

FIRE 89 Fire Command 2C-High Rise Fire Tactics 2.0 Units
(formerly FT 89) Recertification
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. (No prerequisite)

FIRE 90 Paid Call Fire Fighter Academy 3.0 Units
(formerly FT 90) Recertification
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/her 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  Fire Control 5  1.5 Units
(formerly FT 91)
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  Fire Management 2D, Master Planning 2.0 Units
(formerly FT 93)
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  Fire Command 2D, Planning for Large Scale Disasters 2.0 Units
(formerly FT 94)
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 97  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, 24 laboratory hours for one week. (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 98  Fire Company Officer's Academy 1.5 Units
(formerly FT 98)
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 Maintenance 1.5 Units
(formerly FT 98.1)
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 3.0 Units
(formerly FT 30)
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 Operations 3.0 Units
(formerly FT 31)
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 3.0 Units
(formerly FT 32)
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 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 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 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 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  
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  
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  
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  
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

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**FRENCH**

**FREN 101**  
Elementary French  
(formerly FRENCH 1)  
(CAN FREN 2)  5.0 Units  
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  
(formerly FRENCH 2)  
(CAN FREN 4)  5.0 Units  
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  
(formerly FRENCH 3)  
(CAN FREN 8)  3.0 Units  
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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 101</td>
<td>Physical Geography (CAN GEOG 2)</td>
<td>3.0</td>
<td>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. (No prerequisite)</td>
</tr>
<tr>
<td>GEOG 101L</td>
<td>Geography Laboratory (CAN GEOG 6 when taken with GEOG 1)</td>
<td>1.0</td>
<td>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)</td>
</tr>
<tr>
<td>GEOG 102</td>
<td>Cultural Geography (CAN GEOG 4)</td>
<td>3.0</td>
<td>An examination of human activities on the surface of the earth as exhibited by various cultures. Worldwide variations in landscape, 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. (No prerequisite)</td>
</tr>
<tr>
<td>GEOG 103</td>
<td>Geography of California (formerly GEOG 3)</td>
<td>3.0</td>
<td>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)</td>
</tr>
<tr>
<td>GEOG 128</td>
<td>Special Topics (formerly GEOG 28)</td>
<td></td>
<td>See Special Topics listing (Variable units). CSU</td>
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### GEOLOGY

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<th>Course Code</th>
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<tbody>
<tr>
<td>GEOL 101</td>
<td>Physical Geology (CAN GEOL 2) (formerly GEOL 1)</td>
<td>4.0</td>
<td>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, Summer. (No prerequisite)</td>
</tr>
<tr>
<td>GEOL 102</td>
<td>Historical Geology (formerly GEOL 2)</td>
<td>4.0</td>
<td>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 Fall, Spring, Summer. (No prerequisite)</td>
</tr>
<tr>
<td>GEOL 103</td>
<td>Geology of California (formerly GEOL 3)</td>
<td>3.0</td>
<td>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, Spring, Summer. (No prerequisite)</td>
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<tr>
<td>GEOL 109</td>
<td>Geology of the Western National Parks (formerly GEOL 9)</td>
<td>3.0</td>
<td>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, UC. Offered Fall, Spring, Summer. (No prerequisite)</td>
</tr>
<tr>
<td>GEOL 110</td>
<td>Descriptive Mineralogy (formerly GEOL 10)</td>
<td>4.0</td>
<td>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)</td>
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<tr>
<td>GEOL 112</td>
<td>Introduction to Mineralogy (formerly GEOL 12)</td>
<td>3.0</td>
<td>An introduction to minerals and their occurrences. Identification of minerals based on physical and chemical properties, crystallography, relationships, and genesis. Emphasis on ore-forming minerals. Two lecture, three laboratory hours per week. CSU, UC. (No prerequisite)</td>
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<tr>
<td>GEOL 128</td>
<td>Special Topics (formerly GEOL 28)</td>
<td></td>
<td>See Special Topics listing (Variable units). CSU</td>
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<td>GEOL 129</td>
<td>Independent Study (formerly GEOL 29)</td>
<td></td>
<td>See Independent Study listing (1-3 units). CSU</td>
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</tbody>
</table>
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 Disabled Students  1.0 Unit
(formerly GUID 101)
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. Two lecture hours per week for nine weeks. This course will not apply to the Associate Degree. Offered Fall, Spring. (No prerequisite. Permission of instructor required. Credit/No Credit) This course may be repeated.

GUID 16  LD Program Eligibility Assessment  0.5 Unit
(formerly GUID 60)
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. Three lecture hours per week for six weeks. Offered Fall, Spring. (No prerequisite. Credit/No Credit) This course may be taken two times.

GUID 51  Orientation to College  0.5 Unit
(formerly GUID 4I)
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 Development  1.0-2.0 Units
(formerly GUID 4C)
A series of short-term offerings developed in response to the common interest of special groups. Opportunities for 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 4L)
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  3.0 Units
(formerly GUID 6)
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
(formerly GUID 80)
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. (No prerequisite. Learning Disabilities eligibility process recommended prior to enrollment. Credit/No Credit)

GUID 75  Career Orientation for the Disabled  1.0 Unit
(formerly GUID 80)
This course is designed to offer disabled students a practical orientation in career selection and development of skills in job...
GUID 100  Career and Life Planning  
(formerly GUID 4E)  
2.0 Units  
This group guidance course is designed to assist students in understanding 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. 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 Study Skills  
(formerly GUID 7)  
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 lifestyle, and critical thinking skills. Three lecture hours per week. CSU. (No prerequisite)

HISTORY

HIST 1  History (Field Trip) of Mojave Road  
(formerly HIST 101)  
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 Paute, 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 Mohave Magazine and related oral history interviews already gathered by previous classes and individuals. Three lecture hours per week. (No prerequisite)

HIST 103  World History to 1500  
(formerly HIST 3A)  
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  World History Since 1500  
(formerly HIST 3B)  
3.0 Units  
Course will cover the period of 1500 to the 1980s and will focus on the making of the modern world. Interlocking 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
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 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 (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite)

HIST H117  Honors History of the United States to 1876  
(formerly HIST H17A)  (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)  (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 United States from 1876  
(formerly HIST H17B)  (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 18th 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 122  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. Offered Fall. (No prerequisite)

HIST 123  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 and modern China and Japan. Three lecture hours per week. CSU, UC. Offered Fall. (No prerequisite)

HIST 124  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 125  Special Topics  
(formerly HIST 28)  
See special Topics listing (Variable units). CSU

HIST 126  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 so-
ciety as a product of the region's geographical position in rela-
tion to the rest of Latin America, Europe, and the United States.
Enables the student to have a greater grasp of Mexico's de-
velopment and its position in the world community. Three lec-
ture 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 Interna-
tional honor society study topic for each year. Faculty mem-
bers 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. Of-
fered 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)  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 Ha-
waii. The anthropological background, settlement patterns, ero-
sion of traditional culture and values conquests by whites, geno-
cide, 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 the 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 meth-
odologies 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: Organic Chemistry  5.0 Units
Modern organic synthesis, biotech, and pharmaceutical labo-
atories assess the feasibility of their proposed syntheses us-
ing computer generated models of target compounds. Current
trends in modern research indicate a growing dependence on
computational chemistry. This program will extend topics cov-
ered in CHEM 106 into basic concepts of computational chem-
ystry. Emphasis will be on molecular modeling techniques, ac-
quision, processing, and presentation of experimental data.
Four lecture, three laboratory hours per week. CSU, UC (Pre-
requisite: 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 biologi-
cal macromolecules. 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 hon-
ors course requires acceptance into Honors Program.)

CHDV H146  Honors Child Growth
(formerly CLDDEV H46) and Development  4.0 Units
A study of the child from conception through adolescence; cog-
nitive, physical and social emotional development. Guidance
for the developmental stages will be included. Four lecture
hours per week. CSU, UC (Prerequisite: Enrollment in honors
course requires acceptance into the Honors Program or prior
approval from the instructor.)

ENGL H101  Honors Composition
(formerly ENGL H1A) and Reading  4.0 Units
Principles and methods of expository writing. Analytical read-
ing of source materials and writing of expository papers. Hon-
ors seminar will deepen students' insights. 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 En-
glish 101 (completion of ENGL 50 with a grade of "C" or better)
ENGL H102  Honors Composition  
(formally ENGL H1B) 
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  
(formally ENGL H2)  
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  
(formally 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  
(formally HIST H17B)  
United States from 1876 (CAN HIST 10)  
3.0 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. Three lecture hours per week. CSU, UC (UC credit limitation).  
(No prerequisite)

MATH H105  Honors College Algebra  
(formally 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, loga- 
rithmic 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 H226  Honors Analytic Geometry  
(formally 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  
(formally 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  
(formally 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  
(formally 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  
(formally POL SCIENCE 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 schol-
arly texts and political oratory will be used extensively to ex-
amine the American political experience. Three 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 be-
havior and a consideration of theories and principles pertaining
to the topics of research design and experimentation, per-
ception, emotions and motivation, personality, social psychol-
ogy, 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 PSYCH H10) Psychology 4.0 Units
This course includes the theories, methods, and research find-
ings regarding biosocial, cognitive, and psychosocial develop-
ment of the individual from conception through adulthood,
including death, dying, and bereavement. Four lecture hours
per week. CSU Offered Fall, Spring, Summer. (Prerequisite: En-
rollment 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/instruc-
tor conferences and/or departmental recommendation. De-
signed to provide an opportunity for qualified students to do
individual study in a selected area of a subject field. The stu-
dent may take up to a maximum of six units of Independent
Study course work in a particular discipline. Instructor is re-
ponsible for providing advice and guidance as required, and
for evaluating student performance. (Prerequisite: Formulation
of a written statement of purpose acceptable to the in-
structor 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 sub-
ject 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 photojournal-
ism including basic photography skills, digital imaging, pro-
cessing, 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
In this course, the student will learn the basic techniques of
news and feature reporting and writing while producing the
Victor Valley College student newspaper. Topics covered will
include interviewing techniques, libel and privacy laws and
newspaper writing strategies. Students will produce the cam-
pus newspaper three times in the semester and learn about
career opportunities related to journalism including market-
ing, public relations and computer publishing. Three lecture,
three laboratory hours per week. CSU. (No prerequisite)

JOUR 108L Journalism Lab 1.0-3.0 Units
(formerly JOURN 8L)
This is a laboratory-only class which requires prior comple-
tion of Journalism 8. The student will learn advanced tech-
niques of writing and editing. The student will learn and prac-
tice the basics of desktop publishing and increase their overall
and increase their overall responsibility in production and dis-
tribution 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

MATHEMATICS

MATH 10 Basic Mathematics Skills
(formerly MATH 167) 3.0 Units
Provides work in operations with whole, decimal, and frac-
tional numbers. Prime factorization, measurement, and pre-
algebra 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) This course may be
taken four times.

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.) This course may be taken two times.

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: 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. See cross listing for CHDV 70. 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. See cross listing for CHDV 71. 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) 3.0 Units (formerly MATH 4)
Trigonometric functions, solutions of triangles, identities, inverse functions, half angles, multiple angles, trigonometric equations, inverse trigonometric functions, and oblique triangles. Emphasis on preparation for calculus. Three lecture hours per week. CSU. Offered Fall, Spring, Summer. (Prerequisite: MATH 90 with a grade of "C" or better or eligibility as determined by VVC assessment.)

MATH 105 College Algebra (CAN MATH 10) 4.0 Units (formerly MATH 5)
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 (CAN MATH 10) 4.0 Units (formerly MATH 5)
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 120 Introduction To Statistics (formerly MATH 20) (CAN STAT 2) 3.0 Units
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. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (Prerequisite: MATH 90 with a grade of "C" or better, or eligibility as determined by VVC assessment.)
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 226  Analytic Geometry and Calculus
(formerly MATH 26A)  (CAN MATH 18)  5.0 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. Five lecture hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: 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: 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
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
Vectors and the geometry of space, vector-valued functions, the calculus of functions as several variables, multiple integration, Green's Theorem, divergence theorem, Stokes' 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, Stokes’ 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
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  Principles of Animation 3.0 Units
(formerly MEART 40)
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  Animation II 3.0 Units
(formerly MEART 41)
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  Digital Character Animation 3.0 Units
(formerly MEART 42)
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  Animation Programming 3.0 Units
(formerly MEART 43)
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  Animation Technology Applications 3.0 Units
(formerly MEART 44)
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  Render Management 3.0 Units
(formerly MEART 45)
This course is 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 60  Fundamentals of Game Design 3.0 Units
(formerly MEART 30)
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  Game Design Interface Design 3.0 Units
(formerly MEART 31)
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  Game Engine Programming 3.0 Units
(formerly MEART 32)
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  Multi-User Game Design 3.0 Units
(formerly MEART 33)
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 3.0 Units
(formerly MEART 35)
This course is a 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)  
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  
(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 102. 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 114 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 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 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)

MUSC 117 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. (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. (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. (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 1.0 Unit
(formerly MUSIC 18D)
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. (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 1.0 Unit
(formerly MUSIC 18E)
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. (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 1.0 Unit
(formerly MUSIC 18F)
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. (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 1.0 Unit
(formerly MUSIC 18G)
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. (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. (Prerequisite: For music transfer students. Declared music major. Demonstrated performance abil-
ity 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
(formally 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
(formally 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
(formally 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
(formally 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
(formally 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
(formally 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
(formally 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
(formally MUSIC 28)
See Special Topics listing (Variable units).

MUSC 129  Independent Study
(formally MUSIC 29)
See Independent Study listing (1-3 units).

MUSC 130  Women’s Choir  1.0 Unit
(formally 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
(formally 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. (Pre-
MUSC 122 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 desired.) (Credit/No Credit) This course may be taken four times.

MUSC 124 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 125 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 126 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 127 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 128 Cooperative Education (formerly MUSIC 38)
See Cooperative Education listing (1-8 Units). CSU

MUSC 129 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 130 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. Auditions 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 131 Jazz Rock Combo 1.0 Unit
(formerly MUSIC 32)
This course is a study and performance of standard jazz literature for the beginning and intermediate jazz combo. Improvisation skills, sight reading skills, ear training skills, and performance practice skills will be emphasized. Three laboratory hours per week. CSU, UC. (Prerequisite: Student must audition. Credit/No credit) This course may be taken four times.

MUSC 132 Beginning String Ensemble (formerly MUSIC 61A) 0.5 Unit
This course is 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. Three 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 133 Preludium String Ensemble (formerly MUSIC 62) 0.5 Unit
This course is 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, UC. Offered Fall, Spring. (Prerequisite: Student must audition for this ensemble. Alternative course is Music 137. Credit/No Credit.) This course may be taken four times.

MUSC 134 Studio Band 1.0 Unit
(formerly MUSIC 35)
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 - Chromatic Practice    3.0 Units  
(Formerly MUSIC 3A)  
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    1.0 Unit  
(Formerly MUSIC 4C)  
Laboratory, Level III  
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. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: MUSC 105) (Credit/No Credit)

MUSC 204    Advanced Theory - Chromatic Practice, Part II    3.0 Units  
(Formerly MUSIC 3B)  
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    1.0 Unit  
(Formerly MUSIC 4D)  
Laboratory, Level IV  
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. Offered Fall, Spring. (No prerequisite)

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 repertoire 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 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. 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 and NURS 221)

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 (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 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 221 and/or licensed as a Registered Nurse or Licensed Vocational Nurse. Grade Option.)

NURS 245  Nursing Leadership 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. CSU, UC. (No prerequisite)

PHILOSOPHY

PHIL 101  Introduction To Philosophy: Enduring Questions  3.0 Units
(Formerly PHILOS 6)
Formerly Philosophy 6A. Introduction to the field of philosophy through a discussion of basic questions about existence, knowledge, and value. Topics considered include ethics, social thought, politics, reason, logic, mind, freewill, and religion. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite. Eligibility for ENGL 101 recommended)

PHIL 108  Contemporary Moral Issues  3.0 Units
(Formerly PHILOS 8)
Introduction to the basic concepts, theories, and tools of moral philosophy: relativism, subjectivism, egoism, utilitarianism, Kantian ethics, virtue ethics, contract ethics, feminist ethics.
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. (No prerequisite.)

PHIL 120  Introduction to Ancient and Medieval Philosophy  3.0 Units
In this introduction to ancient philosophical thought, the following topics are given primary emphasis: classical Greek and medieval scholastic philosophy in the European tradition; the medieval Aristotelians in the Islamic tradition; the six orthodox schools of Hinduism; classical Confucian and Taoist thought; and the major Buddhist Mahayana schools. Three lecture hours per week. CSU, UC. Offered Fall. (No prerequisite.)

PHIL 121  History of Modern and 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, Philosophical Analysis, 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
This course provides instruction in critical thinking and advanced English composition. The emphasis is on developing students' skills in argumentative writing through instruction in the analysis, evaluation and formulation of arguments; the critical study of texts; and the composition of critical essays. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: ENGL 101 with a grade of "C" or better.)
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 3.0 Units  
(Formerly PHOTO 3) 
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 light 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. Offered alternate years. (No prerequisite) 

PHOT 106 Introduction to Photojournalism 2.0 Units  
(Formerly PHOTO 6) 
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
PE 104 Psychology of Physical 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 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
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
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
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
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
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
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
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 1.0 Unit
See Special Topics listing (Variable units).

PE 140 Care and Prevention of Injuries 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
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
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 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)

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PE 151 Officiating Recreational and Team Activities 3.0 Units
(formerly PE 23)
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. (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, Summer. (No prerequisite. 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. The 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 Conditioning 1.0 Unit
(formerly PE 10H)
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 1.0 Unit
(formerly PE 40)
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 (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 3.0 Units
(formerly PE 27)
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 151A. 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 151B. 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  1.0 Unit  
(formerly PE 21P)  
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 Performance I  1.0-3.0 Units  
(formerly PE 41A)  
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 Performance II  1.0-3.0 Units  
(formerly PE 41B)  
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 Performance III 1.0-3.0 Units
(formerly PE 41C)
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, UC (No prerequisite. Grade option) This course may be taken four times.

PEDA 277
Dance Rehearsal and Performance IV 1.0-3.0 Units
(formerly PE 41D)
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, UC (No prerequisite. Grade option) This course may be taken four times.

PEDA 279
(Adapted) Adapted Physical Education Courses

APE 160
Adapted Physical Exercise 1.0 Unit
(formerly PE 5)
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 1.0 Unit
(formerly PE 5C)
Snow Skiing
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 1.0 Unit
(formerly PE 5D)
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.

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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  1.0 Unit  
(formerly PE 5P)
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" Exercise Class  1.0 Unit  
(formerly PE 5R)
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" Cardiac Rehab  1.0 Unit  
(formerly PE 5S)
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  1.0 Unit  
(formerly PE 5B)
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  1.0 Unit  
(formerly PE 5E)
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  1.0 Unit  
(formerly PE 5H)
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  1.0 Unit  
(formerly PE 5L)
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**  
(formerly PHY SCI 15)  
3.0 Units  
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). Offered Spring. (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**  
(formerly PHYSICS 10)  
4.0 Units  
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)  
(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)  
(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 (formerly PHYSICS 1C)**  
(Mechanics Of Fluids,Heat and Sound)  
(CAN PHYS SEQ B)  
4.0 Units  
Charge and matter, the electric field, electric potential, capacitors and dielectrics, direct current and resistance, electromagnetic 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  
(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 Government and Politics
(formerly POL SCI 1B) 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 and Politics
(formerly POL SCI H1B) 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 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
(formerly POL SCI 20) 2.0 Units
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) 3.0 Units
See Special Topics listing (Variable units).

POLS 129 Independent Study
(formerly POL SCI 29) 1.0-3.0 Units
See Independent Study listing (1-3 units).
POL 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)

POL 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)

POL 132  Research and Writing for 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)

POL 133  Legal Ethics for Paralegals  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 Fall. (No prerequisite)

PSYC 101  Introductory Psychology
(formerly PSYCH 1A)  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)  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 Psychology
(formerly PSYCH 1B)  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 development, time management, communication skills, career development, time management, communication skills, career development,
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 Survivors of Dysfunctional Families  3.0 Units
(formerly PSYCH 8)
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**  Neuropsychological Basis of Behavior  3.0 Units
(formerly PSYCH 10)
The course relates states and behaviors such as addiction, circadian 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, UC. (No prerequisite)

**PSYC 110**  Developmental Psychology  3.0 Units
(formerly PSYCH 11)
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 Honors  4.0 Units
(formerly PSYCH H10)
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  3.0 Units
(formerly PSYCH 11)
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  1.0 Unit
(formerly PSYCH 12)
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  3.0 Units
(formerly PSYCH 25)
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  3.0 Units
(formerly PSYCH 28)
See Special Topics listing (Variable units).

**PSYC 129**  Independent Study  3.0 Units
(formerly PSYCH 29)
See Independent Study listing (1-3 units).

**PSYC 130**  Psychology Of Adulthood  3.0 Units
(formerly PSYCH 30)
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 Studies  3.0 Units
(formerly PSYCH 33)
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  3.0 Units
(formerly PSYCH 38)
See Cooperative Education listing (1-8 units). CSU

**PSYC 139**  Dysfunctional Family-Practicum  1.0 Unit
(formerly PSYCH 39)
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**  
(formerly PSYCH 4)  
3.0 Units 
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**  
(formerly PSYCH 13)  
3.0 Units 
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 Studies**  
(formerly REL STS 1)  
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, behavior, 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 Old Testament**  
(formerly REL STS 5A)  
3.0 Units 
Survey of the history and literary activity of Israel from antiquity through the Post-exilic period. The course will provide an analysis of the Hebrew scriptures from literary, historical, and sociological perspectives. Some comparisons will be made with non-canonical writings of the period. CSU, UC. Offered Fall. (No prerequisite. ENGL 101 recommended)

**RLST 106**  
**Introduction To The New Testament**  
(formerly REL STS 5B)  
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 non-canonical writings of the period. CSU, UC. Offered Spring. (No prerequisite. ENGL 101 recommended)

**RLST 110**  
**World Religions**  
(formerly REL STS 10)  
3.0 Units 
Factual introduction to the development, beliefs, and practices of the great religions of world history: ancient Greek, Roman, Egyptian, and Persian religions; Hinduism, Buddhism, Confucianism, Taoism, Shinto, Judaism, Christianity, and Islam. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite. ENGL 101 recommended)

**RLST 115**  
**Religion In America**  
(formerly REL STS 15)  
3.0 Units 
Historical study of religion in America, emphasizing both its diversity and unifying factors. Major topics include Native American religion, Judaism, Roman Catholicism, Protestantism, African-American religions, American Sects, Metaphysical and Occult religions, Asian religions, and religious dimensions of politics and popular culture. Three lecture hours per week. CSU, UC. (No prerequisite. Eligibility for ENGL 101 recommended)

**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 Therapy**  
(formerly RSP THY 30)  
3.0 Units 
This course 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 cardiopulmonary pathology in order to give the student a basic foundation for theory and application of Respiratory Therapy. Nine lecture hours per week for six weeks. CSU. Offered Summer. (Prerequisite: MATH 50, CHEM 100, BIOL 100 and formal admission to the Respiratory Therapy Program)

**RSPT 231**  
**Orientation To Basic Fundamentals Of Respiratory Therapy**  
(formerly RSP THY 31)  
10.0 Units 
Survey of respiratory therapy as an allied health profession. Informs the student of the responsibilities and functions of a Respiratory Therapist. The course content will include: medical terminology, physics and math for respiratory therapy, basic anatomy and physiology of the respiratory-pulmonary system, medical gas therapy, humidity and aerosol therapy, infection control, basic therapeutic and diagnostic modalities. Provides initial hospital orientation and administration of basic respiratory therapy to patients, through laboratory simulation. Four lecture, eighteen laboratory hours per week. CSU. Offered Fall. (Prerequisite: RSPT 230 with a grade of “C” or better.)
RSPT 232 Patient Assessment and Clinical Application Of Respiratory Therapy 10.0 Units
A more in-depth study of the theory and application of respiratory therapy. The course will include: pressure-cycled ventilators, techniques of airway management, comprehensive pulmonary assessment, advanced cardiopulmonary physiology, pharmacological care and pulmonary function testing of pulmonary patients. The student will spend 16 hours a week in the hospital concentrating on respiratory therapy floor care. 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 and Advanced Pulmonary Physiology 13.0 Units
A more advanced study of the theory and application of respiratory therapy. The course content will include: continuous mechanical ventilation, respiratory physiology, equipment used in acute care management, microbiology for respiratory therapy, arterial puncture and analysis, endotracheal intubation, and the principles of advanced cardiac life support. The student will spend 24 hours a week in the hospital concentrating on the management of the critically ill patient, and gaining experience with the various adult life support systems. Four lecture, three laboratory, and 24 clinical hours per week. CSU. Offered Fall. (Prerequisite: RSPT 239, BIOL 211, 231, with a grade of “C” or better.)

RSPT 234 Neonatal and Pediatric Respiratory Care, Pathophysiology and Pulmonary Rehabilitation 13.0 Units
Method of application of the principles of respiratory care in the clinical setting. The course content will include: neonatal and pediatric respiratory therapy, NRP, PALS, pathophysiology of pulmonary manifestations of disease and trauma, cardiopulmonary rehabilitation, and organization and administration of the Respiratory Therapy department. Includes 24 hours of weekly clinical practice under supervision, and 2 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 Orientation To and Basic Principles Of Respiratory Therapy 1.0-5.0 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. The course content will include: medical terminology, physics and math for respiratory therapy, basic anatomy and physiology of the respiratory-pulmonary system, medical gas therapy, humidity and aerosol therapy, infection control, basic therapeutic and diagnostic modalities. Hours per week: self-paced. CSU. Offered Fall. (Admission to Advanced Standing Program.)

RSPT 242 Patient Assessment and Clinical Application Of Respiratory Care 1.0-5.0 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. A more in-depth study of the theory and application of respiratory therapy. The course will include the study of pressure-cycled ventilation, techniques of airway care, advanced cardiopulmonary physiology and pharmacological care of the pulmonary patient. Hours per week: self-paced. CSU. Offered Spring. (Completion of RSPT 241 with a grade of “C” or better.)

RSPT 243 Respiratory Care Written and Clinical Simulation 1.0 Unit
This course will prepare individuals for the NBRC’s written and Clinical Simulation Exam. Those already registered by NBRC will be able to review, evaluate, and improve their clinical assessment and decision-making skills. One lecture. Offered Spring. (Completion of RSPT 233 or RCP/CRT credentials.)

RESTAURANT MANAGEMENT

RMGT 1 Foodservice Training: Server 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/Light Cook 4.5 Units
This course will provide the student with the basic and essential training as a prep/light 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 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:
Understanding Fish and Shellfish 2.0 Units
(formerly RES MGT 75)
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:
Understanding Meats and Poultry 2.0 Units
(formerly RES MGT 76)
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-
Prep/Line Cook 3.0 Units
(formerly RES MGT 81)
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-
Waiter/Waitress 3.0 Units
(formerly RES MGT 82)
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) Industry 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 Industry
(formerly RES MGT 93) 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

SOCIOMETRY

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)
### SPANISH

**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. (No prerequisite)

**SPAN 125**  
*Conversational Spanish I*  
(formerly SPAN 25)  
3.0 Units  
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.

### SOCIETY

**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 107**  
*The Ethnic Experience In American Society*  
(formerly SOC 7)  
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

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SPAN 130  Conversational Spanish for Healthcare Professionals I  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
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
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  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  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
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  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, Summer. (No prerequisite)

SPCH 109  Public Speaking  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  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 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

**SPCH 223**  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 222) This course may be taken two times.

**SPCH 224**  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 223) This course may be taken two times.

**SPCH 225**  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 224) This course may be taken two times.

### THEATRE ARTS

**TA 101**  Introduction to Theatre  (formerly TA 1)  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  3.0 Units  (formerly TA 4)
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  3.0 Units  (formerly TA 6)
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 for Young Audiences  1.0 Unit  (formerly TA 8)
This course will provide study and laboratory exploration 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  2.0 Units  (formerly TA 9)
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  
(Formerly TA 13)  
2.0 Units  
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  
(Formerly TA 15)  
2.0-4.0 Units  
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: Lighting and Sound  
3.0 Units  
(Formerly TA 17)  
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  
2.0 Units  
(Formerly TA 20)  
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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 161</td>
<td>Intermediate Tap</td>
<td>1.0 Unit</td>
<td>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.</td>
</tr>
<tr>
<td>TA 166</td>
<td>Ballet I</td>
<td>1.0 Unit</td>
<td>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.</td>
</tr>
<tr>
<td>TA 167</td>
<td>Ballet II</td>
<td>1.0 Unit</td>
<td>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 laboratory hours per week. CSU, UC (No prerequisite. Grade option) This course may be taken four times.</td>
</tr>
<tr>
<td>TA 170</td>
<td>Jazz Dance I</td>
<td>1.0 Unit</td>
<td>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.</td>
</tr>
<tr>
<td>TA 171</td>
<td>Jazz Dance II</td>
<td>1.0 Unit</td>
<td>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.</td>
</tr>
<tr>
<td>TA 174</td>
<td>Modern Dance I</td>
<td>1.0 Unit</td>
<td>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.</td>
</tr>
<tr>
<td>TA 175</td>
<td>Modern Dance II</td>
<td>1.0 Unit</td>
<td>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.</td>
</tr>
<tr>
<td>TA 266</td>
<td>Ballet III</td>
<td>1.0 Unit</td>
<td>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.</td>
</tr>
<tr>
<td>TA 267</td>
<td>Ballet IV</td>
<td>1.0 Unit</td>
<td>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.</td>
</tr>
<tr>
<td>TA 270</td>
<td>Jazz Dance III</td>
<td>1.0 Unit</td>
<td>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.</td>
</tr>
<tr>
<td>TA 271</td>
<td>Jazz Dance IV</td>
<td>1.0 Unit</td>
<td>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.</td>
</tr>
<tr>
<td>TA 274</td>
<td>Modern Dance III</td>
<td>1.0 Unit</td>
<td>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.</td>
</tr>
<tr>
<td>TA 275</td>
<td>Modern Dance IV</td>
<td>1.0 Unit</td>
<td>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, UC (No prerequisite. Grade option) This course may be taken four times.</td>
</tr>
</tbody>
</table>

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**WELDING**

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 50</td>
<td>Introduction to Welding</td>
<td>2.0 Units</td>
<td>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. 2nd and 4th Terms and Summer. (No prerequisite)</td>
</tr>
<tr>
<td>WELD 51</td>
<td>Oxyacetylene Welding, Cutting, and Brazing</td>
<td>3.0 Units</td>
<td>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)</td>
</tr>
<tr>
<td>WELD 52</td>
<td>Shielded Metal Arc Welding - Basic</td>
<td>3.0 Units</td>
<td>Develops entry-level shielded metal arc welding (SMAW) skills for the welder. Two lecture, four laboratory hours per week. Offered Fall, Spring. (No prerequisite)</td>
</tr>
</tbody>
</table>
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. 1st 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
Adell, Tim (1999)
Assistant Professor, English
B.A., North Park College
MA., 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)
Assistant 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)
Instructor, 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

Basha, Claudia (1988)
Professor, English/French
B.A., University of Illinois, Champaign-Urbana
M.S., Oklahoma State University

Basiri, Thomas (1997)
Assistant Professor, Chemistry
Ph.D., Boston College

Becker, Barbara (1993)
Associate 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

Bellomy, David (2000)
Instructor, Administration of Justice
B.S., California State College at Los Angeles
M.A., California State University, San Bernardino
Ph.D., Claremont Graduate School

Bennett, Harry Lee (2000)
Instructor, 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

Boucher, Larry (1997)
Assistant Professor, Respiratory Therapy
A.S., Long Beach City College
B.S., Southern Illinois University at Carbondale
M.A., University of Redlands

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

Butros, Michael (2000)
Instructor, Mathematics
B.S., University of California, Irvine
M.S., Northern Arizona University

Instructor, 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

Assistant Professor, Anthropology
B.A., M.A., California State University, Fullerton

Chapman, James (1967)
Professor Emeritus, Mathematics
A.B., M.A., San Jose State College

Chimiklis, Phrosene (1980)
Professor, Chemistry
B.S., University of New Hampshire
M.S., Ph.D., University of Maryland, College Park

Chou, Juanita (1983)
Professor, Counseling
B.A., M.S., San Francisco State College

Clark, Thomas (1998)
Dean of Instruction, Vocational Programs
B.S., California State Polytechnic University, Pomona
M.A., California State University, Chico

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
Contreras, Fernando (2000)  
_Instructor, Counseling_
B.A., University of California, Santa Cruz  
M.A., San Jose State University

_Dean, Student Services_
M.D., A.B., Humboldt State University  
Ed.D., University of Nevada, Las Vegas

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

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)  
_Professor, Librarian_
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

Emboden, Nord (1989)  
_Professor, Construction Technology/Drafting_
B.A., California State University, Long Beach

Erne, Gisela (2000)  
_Director, Child Development Center_
A.S., Victor Valley College  
M.A., B.A., Pacific Oaks College

Faro, Tom (1988)  
_Professor, Electronics & Computer Technology_

Fedderson, Robert (2001)  
_Instructor, Computer Information System_
B.A., California State University, San Bernardino

Ferrance, Francis (1973)  
_Professor, English_
A.B., Stonehill College  
M.A., University of Rhode Island  
M.Ed., Bridgewater State College  
Ph.D., University of Arizona

Ferraro, Prudence (2000)  
_Instructor, Nursing_
B.S., M.S., University of Phoenix

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, 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

Glebe, Andrea (1997)  
*Assistant Professor, English*

B.A., B.A., Washington State University  
M.A., Colorado State University

Golder, Patricia (1997)  
*Assistant 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

*Instructor, 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)  
*Instructor, 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

*Associate Professor, Theatre Arts/Speech*

B.F.A., M.A., Marshall University

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, Jellrey (2001)  
*Director of DSPS*

B.A., Azusa Pacific University  
M.A., Fuller Theological Seminary

Hoover, David (2000)  
*Instructor, 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)  
*Instructor, Librarian*

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)  
*Assistant Professor, Counseling*

B.S., California State University, Fullerton  
M.A., California State University, San Bernardino

Jennings, Patricia (2001)  
*Instructor, Psychology*

B.A., M.A., Antioch University

*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)  
*Assistant Professor, Chemistry*

B.S., University of Rochester  
M.S., California State Polytechnic University, Pomona

Kinney, Lee (2001)  
*Instructor, 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
<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Position</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kohlschreiber, Molly (1976)</td>
<td><strong>Professor Emeritus, Art</strong></td>
<td>B.A., M.A., Long Beach State College</td>
</tr>
<tr>
<td>Kroencke, John (1971)</td>
<td><strong>Professor Emeritus, Business Administration</strong></td>
<td>A.B., M.A., San Jose State College</td>
</tr>
<tr>
<td>Kumlin, Allan (1979)</td>
<td><strong>Professor Cooperative Education</strong></td>
<td>B.V.E., M.A., California State University, San Bernardino</td>
</tr>
<tr>
<td>Lackey, Jennie A. (1967)</td>
<td><strong>Professor Emeritus, Psychology</strong></td>
<td>B.A., University of Minnesota, M.Ed., University of Montana, Missoula</td>
</tr>
<tr>
<td>Lewallen, Willard (1999)</td>
<td><strong>Vice President, Student Services</strong></td>
<td>B.S., California Polytechnic University, Pomona, M.S., Ed., Purdue University, Ph.D., University of California, Los Angeles</td>
</tr>
<tr>
<td>Linstrom, John (2003)</td>
<td><strong>Instructor, Paramedic</strong></td>
<td>A.S., Victor Valley College, B.S., Cogswell Polytechnic College</td>
</tr>
<tr>
<td>Lyman, Leo (1984)</td>
<td><strong>Professor, History</strong></td>
<td>B.S., Brigham Young University, M.S., University of Utah</td>
</tr>
<tr>
<td>Mackay, Pamela (1992)</td>
<td><strong>Professor, Biological Sciences</strong></td>
<td>B.S., B.S., M.S., California Polytechnic University, Pomona</td>
</tr>
<tr>
<td>Malone, James Patrick (2000)</td>
<td><strong>Instructor, Mathematics</strong></td>
<td>M.S., B.A., Humboldt State University</td>
</tr>
<tr>
<td>Marin, Traci (2003)</td>
<td><strong>Instructor, Respiratory Therapy</strong></td>
<td>A.S., Victor Valley College, B.S., Loma Linda University</td>
</tr>
<tr>
<td>Mathews, David (1990)</td>
<td><strong>Professor, Fire Technology</strong></td>
<td>B.S., California State University, Los Angeles</td>
</tr>
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<td>Mayer, Eric (1989)</td>
<td><strong>Professor, History</strong></td>
<td>B.A., M.A., Ph.D., University of California, San Diego</td>
</tr>
<tr>
<td>McCracken, Michael (2000)</td>
<td><strong>Instructor, Counseling</strong></td>
<td>B.A., University of California, Riverside, M.A., California State University, San Bernardino</td>
</tr>
<tr>
<td>McDevitt, Steven (1976)</td>
<td><strong>Professor, Speech/SocialScience</strong></td>
<td>B.A., University of Southern California, M.A., California State University, Fullerton, J.D., Western State University College of Law, Fullerton</td>
</tr>
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<td>Melkonian, Arda (1998)</td>
<td><strong>Assistant Professor, Mathematics</strong></td>
<td>B.S., M.A., University of California, Los Angeles</td>
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<td>Menser, Gary (1983)</td>
<td><strong>Professor, Industrial Arts/Welding</strong></td>
<td>B.A., M.A., California State University, Long Beach</td>
</tr>
<tr>
<td>Miller, David J. (1990)</td>
<td><strong>Professor, Counseling/Psychology</strong></td>
<td>B.A., University of California, Berkeley, M.S., University of Wisconsin, Madison, Ed.D., U.S. International University, San Diego</td>
</tr>
<tr>
<td>Miller, Thomas (1976)</td>
<td><strong>Professor, Music</strong></td>
<td>B.M., Biola University, M.M., M.S.M., Southern Methodist University, Ph.D., University of Southern California</td>
</tr>
<tr>
<td>Milroy, Marjorie (1968)</td>
<td><strong>Professor, Speech/Theatre Arts</strong></td>
<td>B.A., San Jose State College, California, M.A., California State University, San Bernardino</td>
</tr>
<tr>
<td>Mircl-Smith, Theresa (1990)</td>
<td><strong>Professor, Speech</strong></td>
<td>B.A., California State University, Sacramento, M.A., California State University, Fullerton</td>
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<td>Moon, Oscar Odell (1990)</td>
<td><strong>Professor, Business Administration</strong></td>
<td>B.S., California Polytechnic University, Pomona, J.D., Western State University, Fullerton</td>
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<td>Moser, David (1999)</td>
<td><strong>Assistant Professor, Mathematics</strong></td>
<td>B.A., M.A., California State University, Los Angeles</td>
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<td>Nunez, Peggy (1999)</td>
<td><strong>Assistant Professor, EOPS Counseling</strong></td>
<td>B.A., University of California, Santa Barbara, M.A., University of Denver</td>
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<td>Oliver, Claude (2001)</td>
<td><strong>Instructor, Computer Integrated Design and Graphics</strong></td>
<td>B.S., California State University, Fresno, M.A., Chapman University</td>
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<td>Paine, John (1998)</td>
<td><strong>Assistant Professor, Physical Education</strong></td>
<td>B.S., California Polytechnic University, Pomona, M.Ed., Azusa Pacific University</td>
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<td>Palmer, Rebecca (1989)</td>
<td><strong>Professor, Business Education Technology</strong></td>
<td>B.V.E., California State University, San Bernardino</td>
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<td>Pendleton, Joseph (2000)</td>
<td><strong>Instructor, Reading Specialist</strong></td>
<td>M.A., Marquette University, B.A., B.A., University of California, Irvine</td>
</tr>
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<td>Penos, Jose (1998)</td>
<td><strong>Assistant Professor, Restaurant Management</strong></td>
<td>B.S., M.A., San Jose State College, California, University of California, Irvine</td>
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Peterson, Shirley (1990)
Professor, Counseling
B.S., University of Montana
M.S., Oregon State University
M.A., Ph.D., Fielding Institute

Pierce, Sherri (2000)
Instructor, Counselor DSPS
M.A., B.A., California State University, Long Beach

Professor Emeritus, Automotive Technology
A.A., Victor Valley College
B.V.E., 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

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)
Instructor, Biological Sciences
B.A., M.A., California State University, Fullerton
M.S., University of Wisconsin

Ridge, Patrick J. (2001)
Instructor, Mathematics
B.A., M.A., California State University, San Bernardino

Ripley, Richard (1997)
Assistant 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)
Instructor, 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, Khalid (2000)
Instructor, Electronics & Computer Technology
B.S., M.S., Northrup University

Rude, John (1997)
Assistant 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

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)
Instructor, Horticulture
M.S., Colorado State University

Smith, Carl (1994)
Director of EOPS
B.A., M.A., California State University, San Bernardino

Smith, Michael (2000)
Instructor, Education
B.A., University of California, Riverside
M.A., Pepperdine University

Solis, Judy (1998)
Assistant Professor, English
B.A., M.A., Kent State University

Superintendent/President
B.S., University of La Verne
M.A., Ph.D., University of California, Riverside

Sweet, John (1996)
Associate Professor, Automotive

Spykens, 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)

_Instructor, Computer Integrated Design and Graphics_
B.A., M.P.S., New York University

Thay, Sandy (2003)

_Instructor, Child Development_
B.S., M.S., University of La Verne

Teel, Patricia (2001)

_Instructor, 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)

_Instructor, 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)

_Instructor, DSPS Counseling_
B.A., M.A., California State University, San Bernardino
M.A., Azusa Pacific 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

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, Biological Sciences_
B.A., Long Beach State College
M.S., Northern Arizona University

Weathersby, Bonnie (2001)

_Instructor, Counseling_
B.A., M.A., California State University, San Bernardino

Weis (Tran), Ahn (2001)

_Instructor, Mathematics_
B.A., California State University, San Bernardino

White, Christa (1998)

_Assistant Professor, Physical Education_
B.S., Texas Tech University
M.Ed., Azusa Pacific University

Williams, James (2000)

_Vice President, Administrative Services_
B.S., California State University, Long Beach
M.S., Golden Gate University
Ed.D., University of Laverne

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)

_Instructor, Counseling_
AB., M.S., San Diego State University

Wood, Brent (2000)

_Instructor, Commercial Photography_
B.A., Brooks Institute of Photography, Santa Barbara

Yong, Henry C.V. (2000)

_Dean of Instruction, Academic Services_
Ed.S., M.A., Specialist in Education, B.A., Lorna Linda University

Young, Henry (1995)

_Associate Professor, Business Administration_
B.S., California State Polytechnic University, Pomona
M.B.A., University of Phoenix
CLASSIFIED STAFF

Angulo, Kenneth (1998), Custodian
Armstrong, Terrie (1997), Instructional Assistant I
Barbosa, Margarita (1995), Administrative Assistant
Barrett, Patricia (1987), DSPS Specialist
Bazurto, Theresa (1999), Administrative Secretary I
Becerra, Chicpaul (2000), Office Assistant
Bell, David (2002), Director of Information Technology and Research
Bernor, Gary (1998), Communication Systems Technician
Bogdan, Richard (2002), Grounds Maintenance Worker
Bourdy, Cynthia (2001), Office Assistant
Browne, Aaron (1993), Book Division Coordinator
Brehm, Chris (2002), Office Assistant
Butler, Renay (2000), Accounting Technician I
Caldwell, Sheree (1999), Placement Specialist
Camarena, Yvonne (1998), CDC Permit Teacher
Campbell, Ron (1973-1997), Distinguished Service
Carney, Jim (1999), Campus Police Public Safety Officer
Carpenter, Sharon (1997), Human Resources Technician
Casler, Arthur (1997), Maintenance Worker
Castleman, Darlene (1978-1998), Distinguished Service
Cera, Linda (1988), Executive Assistant
Chapman, Diane (1996), Financial Aid Specialist
Chip, David (2002), Human Resources Technician
Christensen, M. Tillie (1992), Library Technical Assistant
Christianson, Julie (2000), Administrative Secretary I
Christian, Nancy (1988), Performing Arts Center Technician
Clair, Mark (1999), Research Analytical Technician
Clark, Sandra (1988), Director of Financial Aid
Coleman, Fran (1998), Administrative Assistant
Compton, Nonnie (2000), Payroll Technician
Conrad, Michelle (2001), Accounting Technician I
Corbin, Rosaline (1999), Custodian
Cross, Doug (1998), Instructional Assistant III
Crowley, Kevin (2000), Instructional Assistant III
Dance, Tamara (1990), Admissions & Records Assistant
Dane, Mary (1999), CDC Permit Teacher
David, Leta (1996), Network Manager
Davission, Barbara (2002), Office Assistant
Demers, Andre (2002), Instructional Assistant III
Derryberry, Donna (1998), Administrative Secretary I
Do, Eileen (2001), Webmaster
Dorval, Judi (1999), Citation Specialist
Drew, Rebecca (1999), Administrative Secretary I
Embrey, Vira (1990), Administrative Secretary II
Erdmann, Karen (1990), CDC Permit Teacher
Espinoza, Jan (2001), CDC Associate Teacher
Etheridge, Jasper (1997), Sergeant, Campus Police and 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

Fluh, Todd (2001), Instructional Assistant III
Ford, Carole, (1999), Instructional Assistant II
Foster, Sheri Nolan (1985), Coordinator of Payroll and Benefits
Foxworthy, Doug (2000), Financial Aid Specialist
Garcia, Stephen (1989), Director of Maintenance/Operations
Gesson, Vicki (1987), Instructional Assistant III
Gilbert, Thomas (2000), Network Microcomputer Technician
Gonzales, Susan (1991), CDC Food Service Specialist
Green, Ruth (1992), Student Development Center Specialist
Greene, Mitchell (1996), Network Engineer
Grellich, Bill (1989), Director of Marketing/Public Information
Groom, Sharon (1997), Financial Aid Specialist
Guinotte, Christine (2001), Administrative Secretary I
Gummo, Patricia (1990), Laboratory Technician
Gurola, Jaime (2003), Instruc Network/Computer Maint Tech
Hannaman, Doug (1999), Lead Maintenance Worker
Harley, Virginia (1998), Accounting Technician II
Harriman, Darrell, (1999), Electronics Lab Specialist
Henderson, LLoyd (2002), Printing Services Assistant
Henning, Lori (2001), Accounting Technician I
Hernandez, Yvonne (2002), Instructional Assistant III
Hill, Anna (2000) Student Development Center Assistant
Hinojos, Susan (2002), Instructional Assistant I
Hoppes, Joann (1997), Instructional Assistant I
Howard, John (1998), Internal Auditor
Howie, Brian (1997), Maintenance Worker
Huiner, Beverly (1986), Instructional Assistant I/Typesetter
Huggins, LaDonna (2001), Office Assistant
Hughes, Butch (2001), Grounds Maintenance Worker
Jackson, Rita (2001), Instructional Assistant I
Jacquez, Noreen (1999), Campus Police/Public Safety Officer
James, Bernadine (2001), Administrative Secretary I
Janisko, Gina (1998), Financial Aid Specialist
Jasso, Evelyn (1998), CDC Associate Teacher
Johnson, David (2002), Maintenance Worker
Johnson, Gloria (1990), JTPA/CalWORKS Coordinator
Jordan, Ernestine (2001), Switchboard Operator/Receptionist
Jordan, Jr., Laymon (1997), Vehicle/Equipment Mechanic
Jordan, Paclita (2002), CDC Associate Teacher
Kagy, Margaret (1989), C.A.R.E. Specialist
Katnic, Laura (2001), Office Assistant
Kaur, Updesh (2000), CDC Permit Teacher
Keating, Michael (1997), Sergeant, Campus Police and Public Safety
King, David (1993), Maintenance Technician
Kwan, Michael (1997), Instructional Assistant III
Lanphear, Joanna (1999), Custodian
Lares, Sonia (2003), CDC Associate Teacher
Lexion, April (1986), Administrative Secretary II
Loomis, Tim (2001), Maintenance Worker
Lopez, Arthur (2002), Custodian
Lougee, Karyl (1988), Director of Printing Services
Lough, Margie (1972-1998), Distinguished Service
Lovitt, Michelle (2001), Child Development Center Permit Teacher
Manriquez, Veronica (1997), CDC Permit Teacher
Marsh, Claudia (1973), Laboratory Technician
Martin, Mary (1987), Administrative Secretary II
Martin, Victor (2002), Custodian
Martinez, Carlos (1997), Lead Custodian
Mata, Kathy (1998), Accounting Technician I
McComas, Annette (2000), Administrative Assistant
McConnehey, Debra (1998), Accounting Technician I
McDaniel, Linda (2002), Switchboard Operator/Receptionist
McGowan, John (1977), Maintenance Locksmith
McGowan, Suzanne (1985), Maintenance and Operations Clerical Technician
Melendez, Simon (1982-2000), Distinguished Service
Melendez, Vito (1985), Grounds Maintenance Worker
Messer, Monty (1996), Lead Warehouse/Delivery Worker
Messer, Michelle (1999), Administrative Secretary II
Millen, Becky (1999), Director of Admissions and Records
Miller, Sam (1998), Custodian
Mistretta, Sandra (1999), Data Processing Specialist
Mohr, Diane (2002), Office Assistant
Montgomery, Patricia (2001), Placement Specialist
Moore, Kathleen (1980), Media Services Coordinator
Moreno, Christina (1997), Data Processing Specialist
Moreno, Sandra (2001), Office Assistant
Mount, Paul (1997), Custodian
Moy, Sheila (1999), EOPS Specialist
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
Newberry, Patricia (1996), Administrative Secretary II
Niche, Eva (2001), CDC Associate Teacher
Nickerson, William (1997), Instructional Assistant I
Nolan, Greta (1990), Records Evaluator II
Nollner, Holly (2001), Administrative Secretary I
Orloski, Janet (1990), Instructional Assistant II
Ornelas, Lori (2000), Administrative Secretary I
Ortiz, Paulette (2002), Office Assistant
Osborne, Lori (1997), Admissions and Records Assistant
Osburn, B. Michelle (1997), Instructional Assistant III
Ostberg, Christine (2000), Office Assistant
Parker, Sharon (1997), Child Development Center Technician
Parmer, William (Tom) (2000), Custodian
Pearson, Eric (1981), Performing Arts Center Coordinator
Penland, Pamela (1997), Administrative Secretary I
Peterson, Deborah (2000), Instructional Assistant III
Peto, Bruce (1980), Custodian
Pontius, Dana (2002), Office Assistant
Potts, Deborah (2000), Administrative Secretary II
Prieto, Angela (1977), Library Technical Assistant
Prieto, Luis (1999), Warehouse/Delivery Worker
Pringle, Mary (1984), Coordinator of Administrative Services
Pringle, Willie (1977), Director of Student Services
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 Systems Coordinator
Roberts, Beth (2000), Student Development Center Assistant
Robillard, Teresa (1998), CDC Permit Teacher
Robinson, Dianne (1997), Admissions and Records Assistant
Rodgers, Laurel (1990), Library Technical Assistant
Rodriguez, George (2000), Custodian
Rodriguez, Melina (2002), Office Assistant
Rosander, George (1998), Instructional Assistant III
Rothschild, Jean (1997), Office Assistant
Rotte, Kyle (2001), Network Manager
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
Sneed, Delia (2002), Admissions and Records Assistant
Snell-Gonzales, Shirley (2000), Administrative Assistant
Solis, Bonifacio (1999), Admissions and Records Assistant
Sooter, Joe Ann (1997), Library Technical Assistant
Stanford, Shirley (1993), Attendance Accounting Technician
Stanley, Lisa (2002), Custodian
Steinback, David (1995), Instructional Assistant III
Stewart-Leffew, Amy (1998), Grounds Maintenance Worker
Suderno, Jean (1997), Admissions and Records Assistant
Sullivan-Bolding, Eileen (1987), DSPS Specialist
Swantner, Rhonda (1997), Laborary Aide
Tashima, Julie (1992), Director of Athletics/Athletic Trainer
Thomas, Jack (1997), Director of Campus Police and Public Safety
Thompson, Ann (1968), Accounting Technician I
Thompson, Patricia (1986), Records Evaluator II
Townsend, Lisa (2002), Administrative Secretary I
Tremblay, Julie (1997), Library Technical Assistant
Underwood, Starla (2002), Financial Aid Specialist
Vanover, Robert (1997), Instructional Assistant III
Vidana-Barda, Marie (1990), Accounting Technician II
Wack, Gerald (2002), Custodian
Waldeck, Arlene (1988), Purchasing Technician
Walker, Frank (1998), Warehouse Delivery Worker
Whipple, Lael (1987), Administrative Assistant
Wilksrom, Ruby (1989), Coordinator, Curriculum Scheduling
Wilkin, Amy (1998), Athletic Trainer
Wilkett, Nancy (1990), Custodian
Williams, Audrey (1983), Records Evaluator II
Williams, Patti (2001), Learning Center Specialist
Williams, Sharon (1999), Director of Facility Construction and Contracts
Wilson, Cynthia (1999), Human Resources Analyst
Wright, Sharon (1999), Accounting Technician II
Youngs, Albert (2000), Instructional Assistant III
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"The silver spoon is predominantly wielded by those who eat from the bowl of knowledge."

- W. J. Greulich
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