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<td>Fine Arts, A.A.</td>
<td>This is usually the major for students interested in areas such as the following:</td>
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<tr>
<td>Liberal Arts, A.A.</td>
<td>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:</td>
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<tr>
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<td>Anthropology, Economics, English, French, Geography, History, Journalism, Liberal Studies, Philosophy, Political Science.</td>
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<td>Psychology, Religious Studies, Sociology, Spanish</td>
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<tr>
<td>Math/Science, A S.</td>
<td>This is usually the major for students interested in areas such as the following:</td>
</tr>
<tr>
<td></td>
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*No degree is awarded with a major in Allied Health. See specific areas within Allied Health for applicable majors.

**Pending approval by the Chancellor's Office, California Community Colleges
VICTOR VALLEY COLLEGE
A Public Community College Founded in 1962

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
(707) 569-9177 • FAX (707) 569-9179

Nursing: Program
National League for Nursing
California Board of Registered Nursing

Paramedic Program
Inland Counties Emergency Medical Agency

VICTOR VALLEY COLLEGE
18422 Bear Valley Road
Victorville, CA 92392-5849
(760) 245-4271
www.vvcconline.com
Ways This Catalog Can Help You . . .

To more easily find what you are looking for in this catalog, use the INDEX beginning on
page 223.

To look up important dates, turn to the college CALENDAR on the inside back cover. 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 your many opportunities in PROGRAMS OF STUDY beginning on page 63. Use the index on page 223 to find specific programs of study such as Administration, Business Education Technology, Electronics and Computer Technology, English, History, Medical and Health Professions, Welding, and more.

To find out more information about any course, read detailed COURSE DESCRIPTIONS beginning on page 127.

To assure you complete all requirements for an ASSOCIATE DEGREE at Victor Valley College, carefully read REQUIREMENTS FOR GRADUATION beginning on page 41. To find out which courses fulfill GENERAL EDUCATION REQUIREMENTS for an associate degree, turn to page 42.

To find information about the requirements to TRANSFER from Victor Valley College to any California State University (CSU) or University of California (UC) campus, turn to page 43. To find out which courses fulfill CSU GENERAL EDUCATION REQUIREMENTS, turn to page 50-51. To find out which courses fulfill INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC) Requirements, turn to page 46-47.

To review Victor Valley College rules and regulations which were established to foster higher quality education for you, read ABOUT YOUR CAMPUS on page 5.
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WELCOME TO VICTOR VALLEY COLLEGE

“If the environment permits it, anyone can learn whatever he chooses to learn; and if the individual permits it, the environment will teach him everything it has to teach.”

-Viola Spolin
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 thirty-five 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 one first settled more than a hundred years ago by California gold miners, trappers, ranchers, merchants, and railroad men.

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

Victorville itself, 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 traces its roots back to the beginning 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 voters 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, and Student Activities Center buildings have been added. The old library has been remodeled into a learning center, language lab, learning disabilities, and student assessment (all computerized). In addition to these, an elevator connecting the lower and upper campus, parking lots, and tennis courts have been added to the campus. On the horizon is a major classroom building with some 950 student computer learning stations, a dramatic arts/speech addition to the Performing Arts Center, and a new Child Development Center as well as softball and soccer fields.
Welcome to Victor Valley College


BOARD OF TRUSTEES

- ASB Trustee: Maxine Moore
- Thomas M. Elder, II: Carl R. Tate
- Dennis Henderson: 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 as a whole. 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 occupational opportunities within the Victor Valley area.

In recent years, through its Economic and Community Development Department, the college has begun delivering a wide variety of customized training programs to meet the needs of local business, industry, and public agencies.

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

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

CAMPUS CULTURE AND CLIMATE

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

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

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

Nicholas Halisky, Superintendent/President
Ronald L. Krimper, Vice President, Student Learning
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
Henry Yong, Dean, Academic Programs

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 70 certificates of achievement for satisfactory completion of specific programs of study. For an overview, see the inside front cover of the catalog. For a complete listing, turn to page 63.

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 Victor Valley College.
**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**
Technical Education programs at Victor Valley College train interested students in specific occupations. 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**
Graduates of Victor Valley College who have achieved academic distinction are recognized at graduation.

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:

<table>
<thead>
<tr>
<th>Level</th>
<th>GPA Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Honors</td>
<td>3.90 - 4.00 GPA</td>
</tr>
<tr>
<td>High Honors</td>
<td>3.75 - 3.89 GPA</td>
</tr>
<tr>
<td>Academic Distinction</td>
<td>3.50 - 3.74 GPA</td>
</tr>
</tbody>
</table>

These honors are noted on student degrees.

**ABOUT YOUR CAMPUS**

**Student Responsibilities**
Victor Valley College provides an excellent local setting in which students can improve and educate themselves. 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 10,000 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 '99</th>
<th>'00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Murder</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Rape</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Robbery</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Assault</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Auto Theft</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Auto Burglary</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Being under the influence</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Weapons possessions</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Burglary</td>
<td>10</td>
<td>33</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 handicap 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: sique las guias federales incluyendo el Título IX de la Enmienda Educativa de 1972 la cual se relata al redatamiento, empleo y la retención de empleados. VVC no hace disntinción a base de raza, color, sexo, origen national, 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 de Victor Valley, (760) 245-4271, extension 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, Lois Kobz, Director of Human Resources, Victor Valley College, 18422 Bear Valley Rd., Victorville, CA 92392 (760) 245-4271, extension 2386.

Política No Discriminatoria
El Distrito del Colegio de 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 ingles no será una barrera a la admisión o participación en el programa de educación vocacional.

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 - Lois Kobz, Director of Human Resources, Victor Valley College, 18422 Bear Valley Rd., Victorville, CA 92392 (760) 245-4271, extension 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 Lois Kobz, Director of Human Resources/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 - Lois Kobz, Director of Human Resources, Victor Valley College, 18422 Bear Valley Rd., Victorville, CA 92392 (760) 245-4271, extension 2386.

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, address, telephone number, date and place of birth, major field of study, class schedule, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, the most recent school attended, 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 under other defined circumstances without the students consent.

Student records primarily include those found in the Admission and Records Office (admission application, transcripts, petitions...) and the Dean of Students Office (discipline). The required log of access to these records is kept in the Admin-
sions and Deans Offices. Officials and employees may have access to these records if they are operating within the scope of their assigned duties. These records 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 Institutional Infrastructure. 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 1995 cohort. Rates were assembled from a cohort including only:

- First-time, full-time, credit freshman students in Fall 1995
- Indicated a goal of degree, certificate, or transfer

In looking at WCC’s Fall ’95 initial cohort, only 110 (1.3%) students are represented. Out of this proportionately small cohort, 27.1% of students either graduated, completed, or became transfer prepared and the overall transfer rate was viewed at 14.0%.

The Tracking Period for the current cohort was three years (Fall ’95-Spring ’98). Summer sessions were not included. Students in the ’95 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.

WCC’s results are shown below:

<table>
<thead>
<tr>
<th>Category</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completers</td>
<td>27%</td>
</tr>
<tr>
<td>Left in good standing</td>
<td>18%</td>
</tr>
<tr>
<td>Left in poor standing</td>
<td>18%</td>
</tr>
<tr>
<td>Still enrolled</td>
<td>20%</td>
</tr>
<tr>
<td>Transfers</td>
<td>14%</td>
</tr>
<tr>
<td>Other</td>
<td>3%</td>
</tr>
</tbody>
</table>

18% of students left in poor standing; whereas 61% 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. WCC 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 64 certificates
II.
GETTING AROUND CAMPUS

“Let us dare to read, think, speak and write.”
-John Adams
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**
Located on the lower campus. 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 that was completed in May 1994 with a seating capacity of 2,014. 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 two outdoor tennis courts, a track/athletic field, softball diamond, baseball diamond, and soccer field. All facilities are available to students in athletics classes for organized team sports or for recreational use during the year.

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, women’s soccer, women’s volleyball, men’s and women’s basketball, wrestling and golf, 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. Rams Bookstore is owned and operated by Victor Valley Community College District. The bookstore is located in the Student Activity/Community Conference Center at the east end of the lake adjacent to the elevator complex.

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.

Tickets to on-campus musical and theatrical events are available through the bookstore. Call (760) 245-4271, extension 849, for more information.

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.

**Campus Police Services**
Located in the Student Activities Center/Community Conference Center. 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 operates three programs, and has recently expanded to two locations. Site one, located on the lower campus, north of the Technical/Vocational Complex, hosts preschool and school aged programs. Site two, located on the upper campus, north of the Administration Building, hosts infant, toddler, and preschool programs.

Other academic supplies such as graduation announcements, computer software are available through Rams Bookstore.

The Child Development Center infant and toddler programs serve children from 6 weeks through 3 years; the preschool program serves children age 3 through Kindergarten; and the school-age program serves children from Kindergarten through age 12. All three programs operate both day and evening sessions.

The centers are open Monday through Thursday, 7:30am to 9:00pm; Friday, 7:30am to 5:30pm; and Saturday, 8:00am to 3:00pm. During college breaks, the centers are open Monday through Friday, 7:30am to 5:30pm.

The Child Development Center is accredited by the National Association for the Education of Young Children. The CDC provides quality childcare for the children of income-eligible parents who are either working or in some type of training program. Spaces are also available for full-fee participants. In addition, the program serves as a training site for students enrolled in child development classes. For more information, please phone the center at (760) 245-4271, extension 2235 or 2322.

**Classroom complexes:**
- ACADEMIC COMMONS - 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, basic skills enrichment, and the DSPS-Learning Disabled Center.
ADMINISTRATION BUILDING - 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 - 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.

ART - 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.

BUILDING 15, SEWING COMPLEX - 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.

BUSINESS - The Business Building is located on the east side of the lake just east of the Performing Arts Center. Most business classes take place in this facility. The Business Building also houses the Business Education Technology Laboratory area and the Computer Information Systems, where computers and specialized business equipment are located.

COUNSELING/ADMINISTRATION - Counseling/Administration is located on the southeast end of the lake. This building includes the offices of Counseling, Career Center, Transfer Center, Student Learning, Switchboard and Mailroom.

HUMANITIES COMPLEX - The new home of English, ESL, and language classes, located on the lower campus at the corner of Bear Valley and Fish Hatchery Roads. The Complex also houses the Language Lab, Writing Center and faculty offices.

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

LOWER PORTABLES 3 & 4 - Houses the Fire Technology classes, and are located on the lower campus behind the Construction Technology Building.

MUSIC BUILDING - 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.

PERFORMING ARTS CENTER - Organizations wishing to use the Performing Arts Center should contact Facility Scheduling at (760) 245-4271, extension 2480, regarding availability and rental fees.

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

STUDENT ACTIVITIES CENTER (SAC) - Located on upper campus, east of the lake. Classes are held on the 2nd floor: SAC A, SAC B, SAC C, Quiet Room, and Club Room.

TECHNICAL/ VOCATIONAL COMPLEX - 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.

### Instructional Media Services

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. Materials and equipment are circulated to instructors for use in the classroom. Media production facilities and equipment are also available for faculty and staff use.

### Learning Resources

The mission of the Learning Resource Department is to provide informational resources and services to meet the needs of the educational programs of the college. The Learning Resource Department also serves the information needs of the college staff and administration, as well as provides general and recreational reading for the community at large.

### Library

Located at the north side of the lake, the library offers a diverse collection that includes books, periodicals, pamphlets, microfilm, audio and video cassettes, and CDs. In addition to the regularly circulating books, the library has collections of reference, reserve, local history, and instructor-reserved materials that are available for use within the library. Also available in the library are photocopiers, typewriters and video players for instructional videotapes.

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

While books and materials are lent to students free of charge, community members pay a $12 annual fee to borrow materials. The library charges fees for late return of library materials according to guidelines set by the college Board of Trustees.

Overdue fees range from 10 cents to $1 per day. For lost or damaged materials, borrowers are charged the replacement cost plus a processing charge for each lost or damaged item.

Fines or lost book fees due the library must be paid before grades and transcripts can be issued.
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 Summer is $10 per vehicle.

Parking fees are subject to change.

Alternative Parking Options
In addition to semester parking permits, the College offers students and visitors two alternative 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 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.)

MASTER ARTISTS SERIES - A series of professional performances is presented annually in the Performing Arts Center. Reserved seating for all performances provides a relaxed atmosphere to enjoy the variety of world-class talent that is presented.

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 wishing to use this facility should contact the Secretary, Administrative Services, (760) 245-4271, extension 2480, 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 is a central gathering place for students, faculty, staff and the VVC community.
III.

ADMISSIONS AND REGISTRATION

“That everyone may receive at least a moderate education appears to be an object of vital importance.”
-A. Lincoln
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, and Paramedic programs. The Office of the Dean, Allied Health Programs and Services, located in the Allied Health Building, 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. At registration, all students will be required to file a “statement of residence.” Residence rules are as follows:

1. California residence. 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 Registrar 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 Registrar 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 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-1) 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-1) 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.

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**REGISTRATION**

Registration is the process of becoming officially enrolled in college.

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

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

Victor Valley College’s current Schedule of Classes for the fall, spring, and summer terms contains complete instructions on how to register using RamTalk.

Students may register for classes using RamTalk, the phone-in registration system. A RamTalk Help Line is available for assistance or questions. Call on any scheduled RamTalk day (760) 245-4271, extension 2354.

Students must register for classes by the registration date, prior to the beginning of classes, and complete and return all required forms to the Office of Admissions and Records.

The Office of Admissions and Records will provide final dates for registration as well as other registration materials on request.

Students who do not properly complete the registration process, including the payment of all required college fees, cannot be admitted to classes or receive course credit.

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

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

**Student Registration Priorities**

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

1. Continuing/New/Returning Disabled students
2. Continuing/New/Returning EOPS students
3. Victor Valley College continuing students
4. New and returning students
5. Special full-time students (K-12)
6. Special part-time students (K-12)
7. Non-credit students
8. Auditing students

Note: Please read “W” Grade Symbol on page 26 for registration priority for courses for which excessive w’s have been earned.
Requirements For Registration

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

- A completed admissions application and statement of legal residence to the college.
- All transcripts from previously-attended colleges.
- 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.

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.

College fees must be paid and complete drop/add forms submitted and processed by the Admissions and Records Office before classes are officially dropped or added to a student’s schedule.

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 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 Admissions 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.
IV.
SERVICES FOR STUDENTS

“Education: A debt due from present to future generations.”
-George Peabody
Services for Students

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.

Student body privileges include participation in classes, use of the library, use of the Student Health Center plus a wide variety of student testing and counseling services which are available free of charge.

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.vvcconline.com.

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 and expressing an interest in joining.

Among the clubs now in existence are the Honor Society Phi Theta Kappa, M.E.Ch.A., Black Student Union, Dance club, Scribbler’s club, Chess club, Computer club, French club, and the Sounds of Gospel.

EXTENDED OPPORTUNITY PROGRAM AND SERVICES (EOPS)

Extended Opportunity Program and Services (EOPS) provides book service, tutoring, career counseling, work/study programs, student assisting, priority registration, and other support services to disadvantaged students. The aim of this state-funded program is to help these students succeed at Victor Valley College.

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 on the upper campus between the Music and Art Buildings. Office hours are Monday through Friday from 8:30a.m to 5:00p.m.

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. The student must be enrolled in twelve units and have applied for financial aid. You must also be considered single and head of 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 Music Portable #1, located between the Music and Art Buildings. Office hours are Monday through Friday, 8:30a.m. to 5:00p.m.
BASIC SKILLS

The Basic Skills program is housed in the Academic Commons, located between the library and the Student Activities Center (SAC). Ten basic skills courses offer personalized and media-based instruction in reading, writing, and math. These are one credit, open entry/open exit courses held at the Academic Commons. Success in these classes provides a solid foundation for further introductory college level courses. Basic skills credit/non-credit units do not apply to the Associate Degree. All students registered for Basic Skills Open Lab must attend one orientation meeting in the Academic Commons.

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, nine modules of basic skills courses are offered at the Learning Center on an open-entry, open-exit basis. 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.

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.

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, Guidance 4E. 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 Guidance 4C, 4E and 5 (see course descriptions in Section X).

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)**

DSPS is the umbrella program which serves all eligible students with disabilities. It encompasses these three areas:

- Physical Disabilities Program
- Learning Disabilities Program
- Adaptive Computer Training Center

This department works to ensure that all students with a disability have the appropriate accommodations and services necessary to achieve academic success.

All students who want support services because of a disability must apply at the DSPS office. They must be prepared to verify their disability with appropriate documentation.

**Physical Disabilities Program**

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

At Victor Valley College, the Physical Disabilities Program provides eligible student with a number of accommodations, as well as loans of appropriate equipment.

Individualized accommodations include college orientation, vocational and academic counseling, early registration, alternative texts, notetaking assistance, sign language interpreters, alternative testing, referral to public agencies, and use of the ACT Center.

The campus of Victor Valley College is accessible to students with mobility impairments. DMV placards or disabled plates are required for use of disabled parking. Students with disabilities are required to pay for campus parking.

**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.

The student with learning disabilities is able to comprehend but differs markedly in learning style from other students. A student with a disability can become a successful student with appropriate learning strategies and accommodations.

The Learning Disabilities Program develops a plan of academic support individualized to each student determined eligible for services.

Accommodation services include alternative testing, study skills instruction, equipment loans, readers, liaison with faculty and tutors, use of ACT Center, and a network referral system.

These classes include:

Guidance 60, “Learning Disabilities Assessment” is designed to assess students to determine eligibility for learning disabilities services according to statewide criteria.

Guidance 70, “Alternative Learning Strategies” provides students with learning disabilities the opportunity to identify their individual learning profile and to investigate compensatory learning strategies.

Dev. 60 A/B/C, “Language Analysis Development,” provides progressive perceptual and neurological deficit stimulation therapy and a multisensory, direct instructional, cognitive approach to analyzing language for students identified with specific learning disabilities.

**Adaptive Computer Technology Center (ACT Center)**

Along with other services provided by DSPS, those who qualify have access to the ACT Center located in the Academic Commons Building.

The primary purpose of the ACT Center is to train needed adaptive technology skill to individuals with disabilities. The acquired skills will empower students with disabilities to work independently with computers at home, at work, and in campus labs, classrooms, and the library.
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 course work on one of 82 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 forty subject areas for groups and individually.
- a set of pre-college basic skills courses to bring students “up to speed” enabling them to successfully enter credit courses in math and English.
- over 60 computer software applications in 15 subject areas plus many new applications in CD-ROM format.
- mini seminars and workshops, such as the TI-85 graphing calculator sessions.

Formal basic skills classes and study skills seminars round out the multiple peer, staff and faculty supported services. Tutoring, workshops and coursework computer help are free services for registered WC students. The ten Basic Skills modules offered on an open-entry, open-exit basis require registration and fee payment.

CAREER/TRANSFER CENTER

The Career/Transfer Center consists of the Career Center and 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, UCR and Cal Poly Pomona 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 Student Services Building. The Center is open Monday between 8:30a.m. and 7:00p.m.; Tuesday through Friday, the hours are 8:30a.m. to 5:00p.m. For further information, call (760) 245-4271, extension 2279 or 2447.

STUDENT EMPLOYMENT OFFICE

The Victor Valley College Student Employment Office assists students in finding employment at no cost to them or to the employer. Job announcements are posted in the Student Employment Office and range from unskilled part-time entry-level to full-time career-level management positions.

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.

Student Employment Office personnel interview students to assess employability. We assist job-seekers with writing resumes and cover letters, interview training as well as networking with the employment community. Students may access computer-assisted job search sites.

The Student Employment Office services also include placement in training sites for Cooperative Education students. See the Cooperative Work Experience Education program description for details.

The Student Employment Office also coordinates the on-campus placement of students eligible for the Federal College Work Study (FCWS) program and CalWORKs participants.

Students interested in part-time, full-time, temporary, holiday, seasonal, summer, on-campus, or worksite training, may obtain job information from this office 8:30-5:00p.m, Monday-Friday. The Student Employment Office, Humanities Portable 1, (760) 245-4271, extension 2265, www.vvcconline.com/coopedu
V. MANAGING YOUR EDUCATION

“Education has for its object the formation of character.”
- Herbert Spencer
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 STEPS that a student must follow for proper matriculation are as follows:

- APPLICATION - Fill out the VVC Admissions application and any transcripts you have from other colleges and bring it to the Admissions Office.

- ASSESSMENT - Take the 2-hour Assessment/Placement exam in reading, writing, and math so you can be properly placed in these courses to assure your success.

Exemptions: All new matriculated students as defined above, must be assessed. The following new students, however, are “exempt” and may choose to participate or not participate in assessment or orientation. They must document the “exemption” in the Counseling Office.

- Students who have already received a degree from an accredited college
- Students who have completed the equivalent of college Algebra or English 1A at other colleges.
- Students who have taken the Computerized Placement Test (CPT) for assessment elsewhere in the last three years.
- Students who plan to enroll in only non-credit (Adult/Continuing or Community Service) classes.
- Students who are not otherwise being matriculated, except those who plan to register for an English or mathematics course at Victor Valley College.

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, educational history, etc.

Students who need work in basic skills need to consider any one or the entire set of the Basic Skills modules or other similar basic skills offerings. These courses are designed so the student can then, after this refreshment effort, successfully go on to entry-level credit courses in writing and mathematics.

Students have the right to challenge their assessment test results and placement in specific courses. See page 16 for more information, Prerequisites, Corequisites, Advisories. See the Flow Chart of Math, English, and Reading Course Sequences in this section of the catalog.

- ORIENTATION - Attend the one-hour orientation which will familiarize you with VVC policies, programs and services.
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**

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**English and Reading Course Sequences**

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Basic Skills Courses* → English 166* Basic Reading and Writing ↓ English 50 Writing Fundamentals ↓ English 1A English Composition and Reading ↓ English 18 Composition and Literature ↓ English 59 Effective Reading and Study Skills English 49 Critical Reading and College Study Skills English 58* Reading Improvement I
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*Does not count toward the associate degree*
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:

- Guidance 4C - Reentry Issues for Personal Development
- Guidance 4D - Self Esteem
- Guidance 4E - Career Planning
- Guidance 4G - College Success
- Guidance 5 - Personal and Career Success

Important College Information Sources

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

- SCHEDULE OF CLASSES - Each semester and summer, VVC publishes a Schedule of Classes to be offered during that term. It shows the course description, day and time, and location. It also lists important campus policies. Schedules are mailed to area residents and are available at the Admissions and Records Office. You need one to plan your schedule and register through RamTalk.

- COLLEGE WEBSITE - Various information on the College is available at www.wcconline.com.

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 Politica de Matriculación

Estudiantes pueden hacer una petición sobre cualquier parte de la política de matriculación (menos los requisitos) dirigida al Decano de Servicios Estudiantiles. Esto incluye reclamos acerca del proceso discriminatorio. El Decano va a conducir una revisión para evaluar cualquier ajuste que sean apropiados. Un record de los reclamos será mantenido en la oficina del Decano de Servicios Estudiantiles por 3 años.

Course Numbering System

Courses which transfer to other colleges and universities are numbered for easy reference.

Courses numbered 1 through 49 are usually applicable both for transfer and for graduation.

Courses numbered 50 through 99 generally only count towards graduation at Victor Valley College.

With a few exceptions, courses numbered 100 and above are designed to meet specific community needs and are not used for graduation from Victor Valley College. Exceptions include some courses in automotive technology and electronics which may be applied towards a degree.

Courses which transfer to the California State University System (CSU) or to the University of California (UC) are included in articulation agreements between Victor Valley College and the participating colleges and universities. Please note that these agreements change from time to time.

Courses which transfer are indicated in their course descriptions in Section IX of this catalog covering course descriptions.

Units and Credits

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

Students are considered full-time students if they take 12 or more units per normal 16-week semester, 6 units during 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. 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.

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:

(CR Credit (not counted in GPA, equivalent to “C” or better)
NC No Credit (not counted in GPA, less than “C”) 
I Incomplete 
W Withdrawal from class)
In Progress-Class extends beyond the end of the academic term. Remains on the permanent record to satisfy enrollment documentation but is replaced by the grade and unit credit when the course is completed. Not used in calculating GPA.

RD Report Delayed-Assigned by the Registrar when the assignment of a grade is delayed due to circumstances beyond the control of the student. This is a temporary symbol, not to be used in calculating GPA, and to be replaced by a permanent grade as soon as possible.

MW Military Withdrawal-The “MW” is to be assigned for students who are members of an active or reserve military service and who receive verified orders compelling a withdrawal from courses. The “MW” symbol is not counted in Progress Probation and Dismissal calculations.

Satisfactory Standing
Each student’s work is considered to be satisfactory if an average of 2.0, or “C” or better, is maintained.

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

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

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

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

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

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

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

Withdrawal From Class
When students desire to withdraw from a particular class, it is the responsibility of the student to initiate the withdrawal procedure in a timely manner. Don’t just disappear! Withdrawals are not considered official until a “drop card” is completed, signed by the instructor whose class is dropped, and processed in the Admissions and Records office. 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.

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 authorized after the proper faculty member is informed. These withdrawals will be recorded as a “W” on student transcripts. Students who do not withdraw by this time must receive a grading symbol other than “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 or certificate. 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 apply for academic renewal for not more than two semesters of work completed at WC.
- The student must submit evidence that the previously recorded work was substandard and thus not reflective of current academic ability. Such evidence may include, but is not limited to, one of the following: 15 semester units with at least a 3.00 GPA 30 semester units with at least a 2.50 GPA 45 semester units with at least a 2.00 GPA

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

- At least 24 months must have elapsed between the end of the most recent proposed academic renewal semester and the date of the petition.
- A student may request academic renewal only once.
- Work taken during the disregarded term(s), even if satisfactory, will not be applied toward & requirements; however, subject credit will be allowed for any course completed satisfactorily.
- If the petition is granted, the student’s permanent record is annotated to indicate that no units for work taken during the disregarded term(s), even if satisfactory, will apply toward graduation or other unit commitment. However, all work remains legible on the permanent record to ensure a true and complete academic history.
A student may repeat work taken during academic renewal semesters only if such repetition is necessary to allow normal progression toward an educational objective.

In determining GPA honors at graduation, all work, including that completed during academic renewal semesters, is computed in the cumulative GPA.

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 [R]
Some courses are designated by the symbol [R] in the course description, which indicates repetition is allowed for increased skill development. Credit awarded for these [R] 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. Special circumstances 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, or

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

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 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, contact the Dean, Academic Programs, (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 WC. 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:

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 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 granted.

In order to challenge, the student must not have 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 32 units at Victor Valley College. See Advanced Placement Equivalencies on page 30.

### 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 coordinated program 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. 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 every Friday 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 7 units during a summer intersession.

- To add one or more classes after the close of registration.

- 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.

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 5p.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.

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 Office of Admissions and Records, the Counseling Department, and the Office of the Vice President, Student Services.

**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.

  WC notifies students of their subject to academic 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 requiring them to see a counselor during the current term.

Students subject to academic dismissal at the end of the spring semester may be prohibited from registering for fall semester unless they filed a Petition for Readmission. As part of this petition process students must meet with a counselor and may be limited to a certain number of units, may be required to take specific classes, and/or may required to seek specific support services.
Continued enrollment at VVC will depend on whether students have followed the conditions specified in the Petition for Readmission and whether they have made progress academically. Students are responsible for satisfactorily completing the terms of this Petition for Readmission, and failure to do so may result in immediate dismissal from VVC.

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 of enrollment (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 WC.
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 10</td>
<td>4</td>
<td>11/ 1/ 93</td>
</tr>
<tr>
<td>Chemistry</td>
<td>3, 4 or 5</td>
<td>Chemistry 10</td>
<td>5</td>
<td>10/ 5/ 92</td>
</tr>
<tr>
<td></td>
<td>4 or 5</td>
<td>Chemistry 1A and 1B</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Computer Science</td>
<td>3, 4 or 5</td>
<td>Elective credit &amp;</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Computer Science AB</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economics</td>
<td>3, 4 or 5</td>
<td>Economics 1B</td>
<td>3</td>
<td>9/ 11/ 92</td>
</tr>
<tr>
<td>Micro</td>
<td>3, 4 or 5</td>
<td>Economics 1A</td>
<td>3</td>
<td>9/ 22/ 92</td>
</tr>
<tr>
<td>Macro</td>
<td>3, 4 or 5</td>
<td>Economics 1A</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>3, 4 or 5</td>
<td>English 1A</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Language &amp; Composition</td>
<td>3, 4 or 5</td>
<td>English 1B</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Composition &amp; Literature</td>
<td>3, 4 or 5</td>
<td>English 1B</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>French</td>
<td>3, 4 or 5</td>
<td>French 1 and 2</td>
<td>10</td>
<td>9/ 17/ 92</td>
</tr>
<tr>
<td>Language</td>
<td>3, 4 or 5</td>
<td>Prerequisite for French 3 or 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Literature</td>
<td>3, 4 or 5</td>
<td></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 1B</td>
<td>3</td>
<td>9/ 8/ 92</td>
</tr>
<tr>
<td>Comparative</td>
<td>4 or 5</td>
<td>Political Science 2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>History</td>
<td>3, 4 or 5</td>
<td>History 17A and 17B</td>
<td>6</td>
<td>9/ 28/ 92</td>
</tr>
<tr>
<td>American</td>
<td></td>
<td>Before 1500: Elective credit only</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>European</td>
<td>3, 4 or 5</td>
<td>After 1500: History 3B</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>3, 4 or 5</td>
<td>Mathematics 26A</td>
<td>5</td>
<td>2/ 8/ 92</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>3, 4 or 5</td>
<td>Partial credit for 26B</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Calculus BC*</td>
<td>3, 4 or 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td>3, 4 or 5</td>
<td>Music 10</td>
<td>3</td>
<td>9/ 10/ 92</td>
</tr>
<tr>
<td>Listening &amp; Literature</td>
<td></td>
<td>Elective credit only</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Theory</td>
<td>3, 4 or 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>3, 4 or 5</td>
<td>Psychology 1A</td>
<td>3</td>
<td>10/ 19/ 92</td>
</tr>
<tr>
<td>Spanish</td>
<td>3, 4 or 5</td>
<td>Spanish 1 and 2</td>
<td>10</td>
<td>9/ 17/ 92</td>
</tr>
<tr>
<td>Language</td>
<td></td>
<td>Prerequisite for Spanish 3 or 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Literature</td>
<td>3, 4 or 5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Calculus BC: Partial credit of 4 units for Math 26B may be granted; do not enroll in Math 26C before you complete Math 26B. You can receive credit for the missing 1 unit of 26B by taking it through Independent Study -Math Department 2-8-92.

2000-2001 Victor Valley College Catalog
VI.
FINANCING YOUR EDUCATION

“The surest path to wisdom is a liberal education.”
-A. W. Griswold
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.

WC 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 WC Educational Program Plan and regular attendance in WC 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 next page).

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.

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.

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 pro-
viding 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.

**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 $400 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.

**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 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**
Veterans, or qualified veteran’s dependents, wishing to use their GI Bill educational benefits should stop by the Veterans Affairs office. The VA office has the necessary forms to initiate your application. The VA office also provides assistance regarding the use of your benefits.

If you are a veteran with less than 10 years since date of discharge, you may call the following number to verify the status of your GI Bill: 1-888-442-4551.

Dependents of disabled or deceased veterans may be eligible for a tuition and fee waiver, and may also qualify for Chapter 35 GI Bill benefits.

The Veterans Affairs office is located in the Financial Aid Office. Please contact the VA representative for further information. We may reached at (760) 245-4271, extension 2256.

**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.

**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.
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 $130 per unit. Non-resident tuition fee for Nevada residents is $31 per unit.

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 (New)
$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.”

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.

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 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 percent will be refunded. During the second week, 50 percent of non-resident tuition will be refunded. During the third week, a 25 percent 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 percent of non-resident tuition will be made until 20 percent of class sessions are held. No refunds are made after 20 percent of classes are held.

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

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.
VII.
MOVING ON

“Education has in America’s whole history been the major hope for improving the individual and society.”
-Gunnar Myrdal
A. Occupational Certificates

We'll start by telling you how to complete a certificate. This is the simplest goal, because there's not a lot to figure out. Just turn to the grey-shaded section of this catalog, Section VIII "Programs of Study," which starts on page 59.

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

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

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

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

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

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

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 WC. 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 WC’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 WC 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 59.

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

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. Deadlines are as follows: October 2, 2000 for graduation in December 2000; March 5, 2001 for graduation in May 2001; and May 7, 2001 for graduation in August 2001. Late applicants will be evaluated for the following graduation date. Graduation ceremonies are held once a year in May.
ASSOCIATE DEGREE GRADUATION REQUIREMENTS

A. General Requirements for Graduation

1. Complete 60 degree-applicable units, not to include more than 4 units of physical education activity.
2. Earn a cumulative GPA of 2.0 or higher in all degree-applicable units including all units from other colleges attended if applicable.
3. Complete at least 12 units at Victor Valley College and be in attendance when requirements are met. Active duty military need to complete a minimum of 12 units at WC. OR complete a minimum of 45 units at WC if not in attendance during semester graduation requirements are met.
4. Complete an application for graduation before deadline. Deadlines are published each year in the WC catalog. Applications for degrees and certificates are available in Admissions and Records and in Counseling.
5. Have official transcripts of other colleges attended and/or Advanced Placement scores sent to WC. Students are responsible for furnishing official transcripts.

B. Major

C. General Education

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

Category I: Natural Science

Allied Health 12; Anatomy 1, 2; Anthropology 1, 1 L; Astronomy 1, 2, 3, 4, 5, 6, 10, 11, 14, 16, 17, 18, 19, 20; Chemistry 1A, 1B, 5, 6, 6A, 6B, 10, H10, 14; Electronics 10, 31; Geography 1, 1L; Geology 1, 2, 3, 9, 10, 12; Microbiology 1; Oceanography 10; Physical Education 12; Physics 1, 2, 3, 4, 5, 6, 10, 11, 12; Psychology 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21; Sociology 1, 2, 3, 7, Speech 5

Category II: Social and Behavioral Science

Administration of Justice 11; Allied Health 25; Anthropology 1, 2; Business Administration 17, 18, 20; Child Development 20; Economics 1A, 1B; Geography 1, 2; History 3A, 3B, 5A, 5B, 6A, 6B; Philosophy 6, 6A, 6B, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17A, 17B, 18, 19, 20, 21, 50, 55; Political Science 1A, 1B, 2, 3, 5, 7, 10, 11, 13, 16, 17, 18, 19, 20; Psychology 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 30, 33; Religious Studies 1, 5A, 5B, 10, 15; Sociology 1, 2, 3, 7, Speech 5

Category III: Humanities

Art 1A, 1B, 4, 5, 6, 7, 8, 12A, 12B, 12C, 17A, 18A, 19A, 25A, 32A; English 1B, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 16, 17, 18, 19, 20, 21, 25, 30, 33; French 1, 2, 3, 4, 25; History 3A, 3B, 5A, 5B, 6A, 6B, 7, 6A, 6B, 13, 14, 16, 17, 17A, 17B, 18, 19, 20, 21, 50, 55; Music 1, 2A, 3A, 3B, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20; Philosophy 6, 6A, 6B, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20; Religious Studies 1, 5A, 5B, 10, 15; Spanish 1, 2, 3, 4, 25; Theatre Arts 1, 2, 4, 7, 10, 16

Category IV: English Language

Courses in Category IV must be completed with grade of “C” or better.

Composition

Business Administration 44; Business Education Technologies 45; English 1A, 1B, 50

Communication

Business Administration 44; Business Education Technologies 43, 45; English 1A, 1B, 49, 50; Speech 6, 7, 6, 9

Category V: Analytical Thinking/Mathematics

Course in Category V must be completed with grade of “C” or better.

Business Administration 42; Computer Information Systems 1, 32A; Electronics 10, 57, 58, 59, 60; English 2; Math 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 26A, 26B, 26C, 27, 31, 32, 50, 51; Philosophy 7, 9

Allied Health 12 and Physical Education 12 are the same course. Guidance 5 and Psychology 5 are the same course.

Total units

D. Physical Education

Any activity or non-activity (lecture) physical education course of .5 units or more will fulfill this requirement. Completion of military basic training fulfills this requirement. Courses listed under Athletics may not be used to fulfill Physical Education requirement.

E. Electives

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

C = COMPLETED units IP = IN PROGRESS units N = NEEDED units
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 (bringing the total to 78 units for the second degree, 96 units for the third, etc.).

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 WC 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 WC, 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 (44-47) 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 48-51.

■ 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 52-55 for more information.
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.

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.

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

The Intersegmental General Education Transfer Curriculum (IGETC)
IGETC (usually pronounced “eye-GET-see”) was developed in concert with the UC and CSU systems to create a set of general education courses that would be accepted at both institutions (“segments,” hence “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, WC 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.

See separate listing of CSU and UC transferable courses on pages 50-51.

Students, Faculty, Staff Planning to Transfer?
www.assist.org

assist

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

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

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

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

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

<table>
<thead>
<tr>
<th>AREA 1 - ENGLISH COMMUNICATION</th>
<th>CSU: Three courses required, one from Group 1A, one from Group 1B, and one from Group 1C.</th>
<th>UC: Two courses required, one from Group 1A and one from Group 1B.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1A: ENGLISH COMPOSITION</td>
<td>(Choose one course, 3 semester units minimum.)</td>
<td></td>
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<tr>
<td>English IA</td>
<td></td>
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<tr>
<td>Course from Other College:</td>
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<tr>
<td>Advanced Placement Test Name and Score</td>
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</tr>
<tr>
<td>Group 1B: CRITICAL THINKING AND ENGLISH COMPOSITION</td>
<td>(Choose one course, 3 semester units minimum.)</td>
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<tr>
<td>English 2; *Philosophy 7 (If taken Fall 1992 or thereafter)</td>
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<tr>
<td>Course(s) from Other College:</td>
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<td></td>
</tr>
<tr>
<td>NOTE: If Philo 7 or H7 was taken prior to Fall 1992, then Engl 1B must also be completed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1C: ORAL COMMUNICATION - CSU requirement only</td>
<td>(Choose one course, 3 semester units minimum.)</td>
<td></td>
</tr>
<tr>
<td>Speech 6, 8, 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course from Other College:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AREA 2 - MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING</th>
<th>Choose one course. 3 semester units minimum.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 5, H5, 16, 20, 26A, 26B, 26C, 27, 32</td>
<td></td>
</tr>
<tr>
<td>Course from Other College:</td>
<td></td>
</tr>
<tr>
<td>Advanced Placement Test Name and Score</td>
<td></td>
</tr>
<tr>
<td>NOTE: Math 5, H5 and 16 combined: maximum credit, one course. Maximum of 4 units allowed for Math 76.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AREA 3 - ARTS AND HUMANITIES</th>
<th>Choose three courses to include one from Group 3A: Arts and one from Group 3B: Humanities, 9 semester units minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 3A: ARTS</td>
<td>Art 1, 2, 3, 4, 5, 6, 7, 8; Music 1, 2A, 2B, 3A, 3B, 10, 11, 12, 13; Dance: Physical Education 20; Theatre Arts 1, 2, 16 (Cross listed as English 16)</td>
</tr>
<tr>
<td>Course(s) from Other College:</td>
<td></td>
</tr>
<tr>
<td>Advanced Placement Test Name and Score</td>
<td></td>
</tr>
</tbody>
</table>

| Group 3B: HUMANITIES         | English 1B, 20, 25, 30A, 30B, 31, 40A, 40B, 46A, 46B, 47; History 3A, 3B, 5A, 5B, 6A, 6B, 7, 6A, 6B, 13, 14, 16, 17A, 17B; Philosophy 6, 8, 20A, 20B; Religious Studies 1, 5A, 5B, 10, 15, French 3, 4; Spanish 3, 4 |                                                                                |
| Course(s) from Other College: |                                                                                                           |                                                                                |
| Advanced Placement Test Name and Score |                                                                                                           |                                                                                |

*These courses also fulfill the second semester writing requirement for UC minimum transfer requirements effective Fall 1998.
### AREA 4 - SOCIAL AND BEHAVIORAL SCIENCES

Choose three courses from at least two different disciplines, 9 semester units minimum.

<table>
<thead>
<tr>
<th>Course(s) from Other College</th>
<th>Advanced Placement</th>
<th>Test Name and Score</th>
</tr>
</thead>
</table>

NOTE: No credit for Psych 10 if taken after 11, 16 or 30. Psych 10, 11, 16 and 30 combined: maximum credit, three courses.

### AREA 5 - PHYSICAL AND BIOLOGICAL SCIENCES

Choose at least two courses, one from 5A: Physical Sciences and one from 5B: Biological Sciences, 7 semester units minimum. At least one must include a laboratory indicated by (L).

#### Group 5A: PHYSICAL SCIENCES

<table>
<thead>
<tr>
<th>Course(s) from Other College</th>
<th>Advanced Placement</th>
<th>Test Name and Score</th>
</tr>
</thead>
</table>

NOTE: No credit for Chem 10 or H10 if taken after Chem 1A. No credit for Physical Science 1 if taken after college course in astronomy, chemistry, geology, meteorology, oceanography or physics. No credit for Physics 10 if taken after Physics 1A or 2A. Physics 2AB and 1ABCD combined: maximum credit, one series.

#### Group 5B: BIOLOGICAL SCIENCES

<table>
<thead>
<tr>
<th>Course(s) from Other College</th>
<th>Advanced Placement</th>
<th>Test Name and Score</th>
</tr>
</thead>
</table>

NOTE: Anatomy 1 and 2 combined: maximum credit, one course. No credit for Biology 10 if taken after Biology 1, 2 or 3. Physiology 1 and 2 combined maximum credit, one course.

### LANGUAGE OTHER THAN LANGUAGE - UC Requirement Only

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 WC Admissions and Records office for certification of this area.
- OR
- Complete one of the following Victor Valley College foreign language courses to meet the proficiency level, French 1, 2; Spanish 1, 2
  
  **NOTE:** Completing a higher level foreign language course than those listed above obviously meets this requirement.

<table>
<thead>
<tr>
<th>Course from other college:</th>
<th>Advanced Placement</th>
<th>Test Name and Score</th>
</tr>
</thead>
</table>

- OR
- Earn a score of 3 or higher on Foreign Language Advanced Placement test or a score of 550 or higher on College Board Achievement Test in Foreign Language

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Score</th>
<th>Date taken</th>
</tr>
</thead>
</table>

### U.S. HISTORY, CONSTITUTION AND AMERICAN IDEALS

CSU Graduation Requirement Only

Not part of certification of IGETC, but highly recommended to be completed prior to transfer. One course from Group 1 and one course from Group 2, 6 semester units minimum

- Group 1: Political Science 1 B
- Group 2: History 17A, 17B

**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 5 or Math 5H, not both.
California State Universities and Colleges

Twenty-Two Campuses

HUMBOLDT STATE UNIVERSITY (1913) - Semester
Admissions and Records Office, Arcata 95521-4957 - (707) 826-4402

CALIFORNIA STATE UNIVERSITY, CHICO (1887) - Semester
1st and Normal Streets, Chico 95929-0720 - (916) 898-6321

SONOMA STATE UNIVERSITY (1960) - Semester
1801 East Cotati Avenue, Rohnert Park 94928 - (707) 664-2778

CALIFORNIA MARITIME ACADEMY (1929) - Semester
200 Maritime Drive, Vallejo 94590 - (707) 648-4222

CALIFORNIA STATE UNIVERSITY, SACRAMENTO (1957) - Semester
6000 J Street, Sacramento 95819 - (916) 278-6111

SAN FRANCISCO STATE UNIVERSITY (1899) - Semester
1600 Holloway Avenue, San Francisco 94132 - (415) 338-2411

CALIFORNIA STATE UNIVERSITY, HAYWARD (1957) - Quarter
Hayward 94542-3035 - (510) 881-3811

SAN JOSE STATE UNIVERSITY (1857) - Semester
One Washington Square, San Jose 95192-0009 - (408) 924-2000

CALIFORNIA STATE UNIVERSITY STANISLAUS (1957) - 4-1-4
801 West Monte Vista Avenue, Turlock 95380 - (209) 667-3151

CALIFORNIA STATE UNIVERSITY, MONTEREY BAY (1995) - Tri-semester
915 Hilby Avenue, #28, Seaside, CA93955 - (408) 393-3338

CALIFORNIA STATE UNIVERSITY, FRESNO (1911) - Semester
5150 North Maple Avenue, Fresno 93740-0057 - (209) 278-2261

CALIFORNIA POLYTECHNIC STATE UNIVERSITY, SAN LUIS OBISPO (1901) - Quarter
San Luis Obispo 93407 - (805) 756-2311

CALIFORNIA STATE UNIVERSITY, BAKERSFIELD (1965) - Quarter
9001 Stockdale Highway, Bakersfield 93311-1099 - (661) 664-3036

CALIFORNIA STATE UNIVERSITY, NORTHridge (1956) - Semester
P.O. Box 1286, Northridge 91328-1286 - (818) 885-3700

CALIFORNIA STATE UNIVERSITY, LOS ANGELES (1947) - Quarter
5151 State University Drive, Los Angeles 90032-8530 - (213) 343-3901

CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS (1960) - Semester
1000 East Victoria Street, Carson 90747 - (310) 516-3696

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA (1938) - Quarter
3801 West Temple Avenue, Pomona 91768-4003 - (909) 869-2000

CALIFORNIA INSTITUTE OF TECHNOLOGY, SAN BERNARDINO (1960) - Quarter
5500 University Parkway, San Bernardino 92407-2397 - (909) 880-5200

CALIFORNIA STATE UNIVERSITY, FULLERTON (1957) - Semester
P.O. Box 34080, Fullerton 92634-9480 - (714) 773-2300

CALIFORNIA STATE UNIVERSITY, LONG BEACH (1949) - Semester
1250 Bellflower Boulevard, Long Beach 90804-0106 - (562) 985-5471

CALIFORNIA STATE UNIVERSITY, SAN MARCOS (1989) - Semester
Admissions and Records Office, San Marcos 92096-0001 - (760) 752-4800

SAN DIEGO STATE UNIVERSITY (1897) - Semester enrollment 28, 131
5500 Campanile Drive, San Diego 92182-7455 - (619) 594-6871

48 2000-2001 Victor Valley College Catalog
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.

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.

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 46-47.

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 WC, 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.

See separate listing of CSU and UC transferable courses on pages 50-51.

Students, Faculty, Staff Planning to Transfer?

[www.assist.org](http://www.assist.org)

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

Important Points:
1. A minimum of 9 additional semester units of upper-division general education must be completed at the CSU campus.
2. If a student completes a course in a year it did not appear on the CSU General Education course list, it CANNOT satisfy that general education 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.

<table>
<thead>
<tr>
<th>Legend:</th>
<th>C = Units Completed</th>
<th>IP = Units In Progress</th>
<th>N = Units Needed</th>
</tr>
</thead>
</table>

### AREA A. COMMUNICATION IN THE ENGLISH LANGUAGE AND CRITICAL THINKING
Choose one course from each of the three areas below. Each course from Area must be completed with a “C” grade or better.

#### A1 COMMUNICATION
- Speech 6, 7, 8, 9
- Course from other college.

#### A2 WRITTEN COMMUNICATION
- English 1A
- Course from other college.

#### A3 CRITICAL THINKING
- English 2, Philosophy 7, 9
- Course from other college.

### AREA B. PHYSICAL UNIVERSE AND ITS LIFE FORMS
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: Chemistry 1A, 6, 7, 10, H10, Geography 1+1L, Geology 1, 2, Physics 1A, 2A, 10
- Courses which do NOT include a laboratory: Astronomy 1, Chemistry 14, Geography 1: Geology 3, Oceanography 10, Physical Science 1, 14, 15
- Course from other college.

#### B2 LIFE SCIENCE
- Courses which include a laboratory: Anatomy 1, 2, Anthropology 1 + 1L, Biology 1, 2, 3, 4, 10, Microbiology 1, Physiology 1, 2
- Courses which do NOT include a laboratory: Anthropology 1, Biology 8, 14
- 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.
- Mathematics 4, 5, H5, 16, 20, 26A, 26B, 26C, 27, 31, 32
- Course from other college.
## AREA c. ARTS, LITERATURE, PHILOSOPHY AND FOREIGN LANGUAGE

Minimum 9 units

**C1 ARTS**
- Art 1A, 1B, 4, 5, 6, 7, 8, 12A, 12B, 12C, 17A, 18A, 19A, 25A
- Dance Physical Education 20
- Music 1, 2A, 2B, 3A, 3B, 10, 11, 12, 13, 21
- Theatre Arts 1, 2, 7, 10
- Course from other college

**C2 HUMANITIES**
- English 1B, 16*, 20, 25, 30A, 30B, 31, 35, 40A, 40B, 46A, 46B, 47
- Foreign Language French 1, 2, 3, 4; Spanish 1, 2, 3, 4
- Philosophy 6, 8, 20A, 20B
- Religious Studies 1, 5A, 5B, 10, 15
- Speech 5
- Theatre Arts 4, 16*
- Course from other college

**C ONE ADDITIONAL COURSE FROM ANY OF THE ABOVE COURSES LISTED UNDER C1 OR C2**

- Course used from above
- Course from other college

## AREA D. SOCIAL, POLITICAL AND ECONOMIC INSTITUTIONS AND BEHAVIOR

Minimum 9 units

**UNITED STATES HISTORY REQUIREMENT FOR CSU GRADUATION**
- History 17A or 17B
- Course from other college

**UNITED STATES CONSTITUTION AND AMERICAN IDEALS REQUIREMENT FOR CSU GRADUATION**
- Political Science 1B
- Course from other college

**ONE ADDITIONAL COURSE FROM AREA D**

Choose one additional course not used above from the following:
- Administration of Justice 11
- Anthropology 1, 2, 3, 5
- Child Development 46
- Economics 1A, 10
- Geography 1, 2
- History 3A, 3B, 5A, 50, 6A, 6B, 7, 8A, 8B, 13, 14, 16, 17A, 17B, 18, 20, 21
- Political Science 1A, 1B, 2, 3, 10
- Psychology 1A, 3, 10, 11, 13, 16, 21, 30
- Religious Studies 5A, 5B, 10, 15
- Sociology 1, 2, 3, 7
- Speech 5
- Courses from other college.

**NOTE**
Students may use any 9 units from this section to fulfill certification requirements for Area D, yet they are encouraged to complete the above U.S. History, Constitution and American Ideals requirement as part of Area D.

All CSU campuses, except Chico State, permit these courses to also satisfy Area D requirement.

## AREA E. LIFELONG UNDERSTANDING AND SELF-DEVELOPMENT

Minimum 3 units

- Allied Health 12*, 25
- Guidance 5
- Psychology 1A, 3, 5*, 10, 21, 25, 30, 33
- Sociology 3
- Physical Education 12
- OR
- Physical Education 43 (taken as a 2-unit course) + 1 unit from PE 5, 6A, 6B, 6C, 6D, or 6E

Course(s) from other college.

*Cross-listed courses are the same course listed under different departments. Allied Health 12 and PE 12 are the same course. Guidance 5 and Psychology 5 are the same course English 16 and TA 16 are the same course.
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.

**Azusa Pacific University** - See table of general education requirements at the end of this listing,
Classes held on the WC campus
(760) 952-1765 - (626) 815-5301
+ BS in Applied Management
+ Credit available for prior learning through military, work, and life experience
+ 14-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**
Classes held at Barstow College or at First Baptist Church, Hesperia
(760) 252-5113
◆ BA in Liberal Studies; BS in Business, Political Science
◆ Coursework can be completed in as little as 16 months with the right combination of prior coursework, work experience, and technical education

**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 WC.

**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
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
Victor Valley Academic Center
Carrige Square (2 blocks north of Bear Valley Road)
12421 Hesperia Road, Suite C 5-6
Victorville
(760) 955-7555

+ BA in Social Sciences, Criminal Justice, and other areas
+ Teaching credentials and an M.A. 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

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

New York Institute of Technology
Online Campus
(800) 222-NYIT or (516) 348-3325 or www.nyiit.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 experiencing 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.

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.”
(518) 464-8500

+ 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.

Southern Illinois University - See table of general education requirements at the end of this listing.
3423 Davis Avenue #H, Riverside 92518
(909) 486-2872

+ 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 WC prior to transfer
◆ Cost: $155/unit

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

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
◆ Cost: $242/unit

University Alliance
(888) 622-7344 - ask for Ronda Richardson
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
www.cmil.unex.berkeley.edu/
e-mail: askcmil@uclink4.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.
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
BS classes held at Southern Calif. Edison
MBA classes held at Victorville Ramada Inn
Contact Arely Rivas, (800) 695-4858, x5222

- BS in Business Administration, Health Services Management, Organizational Management, Public Administration. Master’s degrees in Business Admin and Health Admin.
- Sessions are held once per week for ten weeks
- Recommended preparation: Generally, follow IGETC (including English 1 B; Anthro 2 or Religious Studies 10; and Math 5). For pre-major prep: BAD 1A or 2A; BAD 1B or 2B; BAD 3; BAD 17 and 18; Econ 1A and 1B.
- Cost: $255/semester unit + fees

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 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
Ontario Learning Center
337 N. Vineyard Avenue, Suite 100
Ontario, CA 91764
(800) 888-1968
www.uophx.edu

- BS and MA/MBA in Business with majors in Administration, Management and Information Systems
- 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: $275/unit
- For online degrees, visit www.online.uophx.edu

University of Redlands, Whitehead College
(909) 335-4060

- Courses offered in Victorville
- Bachelors degrees in Liberal Studies, Environmental Studies, Business
- Masters in Business Administration

University of Sarasota, California campus
3745 W. Chapman Ave., Suite 100
Orange 92868
(800) 716-9598, fax (714) 940-0630
e-mail: j9600413@yahoo.com
www.sarasota.edu

About half the coursework is done online, with the remainder completed in one-week intensives at the Orange campus.

- BA, MA, MBA, MAEd in many areas
- EdD in Leadership, Counseling, etc.
- DBA in several business areas
- PsyD in clinical psychology
Southern Illinois University offers a B.S. degree in corporate training at its location near March Air Force Base. After completion of 60 units, including the general education courses listed here, and certain other requirements, a transferring student can finish the degree by taking classes every other weekend for about one year. You can contact them at (909) 486-2872.

Azusa Pacific University offers a B.S. degree in applied management on the lower campus at WC. After completion of 60 units, including the general education courses listed here, and certain other requirements, a transferring student can finish the degree by taking classes one night per week for 14 months. Contact them at (760) 952-1765 or (800) 964-8807.

Using CSU's general education/breadth pattern as a framework for comparison, this table allows you to see WC courses that are common among the three institutions' requirements. If you haven't decided which school you want to attend, select courses that satisfy requirements of all three until you make your decision. Take one course from each group.

<table>
<thead>
<tr>
<th>Cal State</th>
<th>Southern Illinois University</th>
<th>Azusa Pacific University</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area A, COMMUNICATION</strong>&lt;br&gt;Take one course from each area (A1, A2, A3). Must be completed with a &quot;C&quot; or better.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>A1</strong> SPEECH 6, 7, 8, or 9</td>
<td>SPEECH 6, 8, or 9</td>
<td>ENGLISH 2, SPEECH 6, 8, or 9</td>
</tr>
<tr>
<td><strong>A2</strong> ENGLISH 1A</td>
<td>ENGLISH 1A</td>
<td>ENGLISH 1A</td>
</tr>
<tr>
<td><strong>A3</strong> ENGLISH 2, PHILOSOPHY 7 or 9</td>
<td>ENGLISH 1B or 2</td>
<td>Not required</td>
</tr>
</tbody>
</table>

**Area B, PHYSICAL UNIVERSE**

| **B1** PHYSICAL SCIENCE - one course<br>Courses which include a laboratory:<br>CHEM 1A 6, 7, 10; GEOG 1+1L; GEOL 1, 2; PHYSICS 1A, 2A, 10<br>Courses which do NOT include a lab:<br>ASTRO 1; CHEM 14; GEOG 1; GEOL 3; OCEAN 10; PHY SCI 1, 14, 15 | SCIENCE<br>Group 1 - one course<br>ASTRO 1; CHEM 1A, 1B, 5, 6, 7, 8A, 8B, 10; GEOL 1, 2; PHYSICS 1A 1B, 1C, H1D, 2A, 2B, 10; PHY SCI 1 | SCIENCE - one course with lab<br>ANAT 1, 2; ANTHRO 1 + 1L*<br>Biol 1, 2, 3, 4, 10<br>CHEM 1A, 6, 7, 10; GEOG 1 + 1L*<br>GEOL 1, 2; MICRO 1; PHYSICS 1A, 2A, 10<br>PHYSIO 1, 2 |
| **B2** LIFE SCIENCE - one course<br>Courses which include a laboratory:<br>ANATOMY 1, 2; ANTHRO 1 +1L;<br>BIOLOGY 1, 2, 3, 4, 10;<br>MICROBIO 1; PHYSIO 1, 2<br>Courses which do NOT include a lab:<br>ANTHRO 1; BIOLOGY 8, 14 | Group 2 - one course<br>BIOLOGY 1, 2, 10; MICRO 1 | *

| **B3** Note that one course (either from B1 or B2) must include a lab. | Lab not required | |
| **B4** MATHEMATICS --- one course which must be completed with a "C" grade or better.<br>MATH 4, 5, 16, 20, 26A, 26B, 26C, 27 | MATHEMATICS-one course<br>MATH 4, 5, 16, 20, 26A, 26B, 26C, 27 | MATH not required |
## Area C, ARTS, LITERATURE, PHILOSOPHY AND FOREIGN LANGUAGE

<table>
<thead>
<tr>
<th>CI ARTS - one course</th>
<th>HUMANITIES - one course</th>
<th>LITERATURE - one course</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1A 1B, 4, 5, 6, 7, 8, 12A, 12B, 12C, 17A, 18A, 19A, 25A; DANCE: PE 20; MUSIC 1, 2A, 2B, 3A, 3B, 10, 11, 12, 13, 21A, 21B, 21C, 21D; TA 1, 2, 7</td>
<td>Group 1 - one course</td>
<td>ENGL 1B, 30A, 30B, 40A, 40B, 46A, 46B</td>
</tr>
<tr>
<td>C2 HUMANITIES - one course</td>
<td>Group 2 - one course</td>
<td>FINE ARTS - one course</td>
</tr>
<tr>
<td>ENGL 1B, 16, 20, 25, 30A, 30B, 31, 35, 40A, 40B, 46A, 46B, 47; FRENCH 1, 2, 3, 4; SPANISH 1, 2, 3, 4; PHILOS 6, 8, 20A, 20B; RELIG STDS 1, 5A, 5B, 10, 15; TA 4, 16</td>
<td>ENGL 20, 26, 30B, 40A, 40B, 46B; PHILOS 6, 8, 9, 20A, 20B</td>
<td>ART 1A 1B, 5, 6; MUSIC 1, 10, 11, 12</td>
</tr>
<tr>
<td>C - ONE ADDITIONAL COURSE from any of the above courses listed under C-1 or C-2</td>
<td>FINE ARTS - one course</td>
<td>PHILOSOPHY</td>
</tr>
<tr>
<td></td>
<td>ART 1A 1B, 5; MUSIC 10, 11; TA 1</td>
<td>PHILOS 6</td>
</tr>
</tbody>
</table>

## Area D, SOCIAL, POLITICAL AND ECONOMIC INSTITUTIONS AND BEHAVIOR

<table>
<thead>
<tr>
<th>UNITED STATES HISTORY REQUIREMENT FOR CSU GRADUATION HIST 17A OR 17B</th>
<th>SOCIAL SCIENCE - two courses</th>
<th>HISTORY AND POLITICAL SCIENCE - one course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ANTHRO 1, 2; ECON 1A, 1B</td>
<td>HIST 17A, 17B; POL SCI 1B, 10; PSYCH 1A SOC 1</td>
</tr>
<tr>
<td>UNITED STATES CONSTITUTION AND AMERICAN IDEALS REQUIREMENT POL SCI 1B</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SOCIAL SCIENCE - two courses</td>
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<tr>
<td></td>
<td></td>
<td>SOCIETY OR PSYCHOLOGY - one course</td>
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<tr>
<td></td>
<td></td>
<td>SOCIETY OR PSYCHOLOGY - one course</td>
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<tr>
<td></td>
<td></td>
<td>SOCIETY OR PSYCHOLOGY - one course</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HIST 17A, 17B; POL SCI 1B</td>
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<tr>
<td></td>
<td></td>
<td>SOC 1, 2, or 3</td>
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<tr>
<td></td>
<td></td>
<td>PSYCH 1A, 1B, 3, 10, 11, 12, 13</td>
</tr>
</tbody>
</table>

## Area E, LIFELONG UNDERSTANDING AND SELF-DEVELOPMENT

<table>
<thead>
<tr>
<th>3 units not used above</th>
<th>3 units not used above</th>
<th>3 units not used above</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALLIED HLTH 12, 25; GUID 5; PSYCH 1A, 3, 5, 10, 21, 25, 30, 33; SOC 3; PE 12; OR PE 43 (taken as a 2 unit course) and 1 unit from PE 5, 6A, 6B, 6C, 6D or 6E</td>
<td>HUMAN HEALTH - one course</td>
<td>HUMAN HEALTH - one course</td>
</tr>
<tr>
<td></td>
<td>AH 12; BIOLOGY 8, 12; PE 12; PHYSIO 1, 2</td>
<td>AH 12; BIOLOGY 8, 12; PE 12; PHYSIO 1, 2</td>
</tr>
<tr>
<td></td>
<td>MULTICULTURAL Diversity in the U.S. - one course</td>
<td>MULTICULTURAL Diversity in the U.S. - one course</td>
</tr>
<tr>
<td></td>
<td>HIST 13, 14, 17A; RELIG STS 10, 15; SOC 7; TA 4</td>
<td>HIST 13, 14, 17A; RELIG STS 10, 15; SOC 7; TA 4</td>
</tr>
<tr>
<td></td>
<td>INTERDICIPLINARY - one course</td>
<td>INTERDICIPLINARY - one course</td>
</tr>
<tr>
<td></td>
<td>BIOLOGY 3, 14; HIST 6A, 6B; GEOG 1; PHY SCI 14; SOC 3</td>
<td>BIOLOGY 3, 14; HIST 6A, 6B; GEOG 1; PHY SCI 14; SOC 3</td>
</tr>
</tbody>
</table>

Revised 9/00
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 WC 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 Records Clerk in the Office Admissions and Records. Completed request forms may be submitted by mail or hand delivered.

Official transcripts will be issued to the student only upon approval by the Dean for Student Success. 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.
The following chart indicates application filing periods for CSU and UC campuses. Since initial filing periods vary according to whether a campus uses the semester or the quarter system, a student should refer to the maps of CSU and UC campuses in this catalog which indicate which system each specific campus uses.

**CSU 2000-2001 Terms**  
**Application First Accepted**  
Spring Semester or Quarter 2001 . . . . . . August 1, 2000  
Summer 2001 . . . . . . . . . . . . . . . February 1, 2001  
Fall Semester or Quarter 2001 . . . . November 1, 2000  
Winter Quarter 2002 . . . . . . . . . . . . . June 1, 2001

**UC 2000-2001 Timelines:**  
**Application Accepted**  
All UC Campuses except Berkeley:  
Spring Quarter 2001 . . . . . . . . . . . . October 1-31, 2000  
Fall Quarter 2001 . . . . . . . . . . . . November 1-30, 2000  
UC Berkeley:  
Fall Semester 2001 . . . . . . . . . . . . November 1-30, 2000  
(Applications for UC Berkeley accepted for the fall only)

### 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.

### California Articulation Numbering System (CAN)

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

When a California Articulation Number (CAN) appears in a Victor Valley 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 1A 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 WC’s Chemistry 1A in place of the particular Chemistry course on their campus that has also been identified as CAN CHEM 2. CAN courses make identification of comparable courses easier and give students the benefit of articulation with many campuses statewide.

A catalog of qualified courses and participating campuses of the California Articulation Numbering (CAN) System is available through the Counseling Department and the Transfer Center. 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. Check with a counselor for information about CAN.

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

**Important Points:**
1. A minimum of 9 additional semester units of upper-division general education must be completed at the CSU campus.
2. If a student completes a course in a year it did not appear on the CSU General Education course list, it CANNOT satisfy that general education 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.

<table>
<thead>
<tr>
<th>Area</th>
<th>Units Completed</th>
<th>Units In Progress</th>
<th>Units Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AREA A. COMMUNICATION IN THE ENGLISH LANGUAGE AND CRITICAL THINKING.</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Choose one course from each three areas below. Each course from Area must be completed with a &quot;C&quot; grade or better.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>A1 COMMUNICATION</td>
<td>Speech 6, 7, 8, 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course from other college:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A2 WRITTEN COMMUNICATION</td>
<td>English 1A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course from other college:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A3 CRITICAL THINKING</td>
<td>English 2; Philosophy 7, 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course from other college:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AREA B. PHYSICAL UNIVERSE AND ITS LIFE FORMS</strong></td>
<td>minimum 3 Units</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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.</td>
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</tr>
<tr>
<td>B1 PHYSICAL SCIENCE</td>
<td>Courses which include a laboratory:</td>
<td></td>
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<tr>
<td>Chemistry 1A, 6, 7, 10, H10</td>
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<tr>
<td>Geography 1 +1L</td>
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<tr>
<td>Geology 1, 2</td>
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<tr>
<td>Physics 1A, 2A, 10</td>
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<tr>
<td>Courses which do NOT include a laboratory:</td>
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<tr>
<td>Astronomy 1; Chemistry 14</td>
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</tr>
<tr>
<td>Geography 1; Geology 3</td>
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<td></td>
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</tr>
<tr>
<td>Oceanography 10</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Physical Science 1, 14, 15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course from other college:</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>B2 LIFE SCIENCE</td>
<td>Courses which include a laboratory:</td>
<td></td>
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</tr>
<tr>
<td>Anatomy 1, 2</td>
<td></td>
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<tr>
<td>Anthropology 1 + 1L</td>
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<tr>
<td>Biology 1, 2, 3, 4, 10</td>
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<tr>
<td>Microbiology 1</td>
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<tr>
<td>Physiology 1, 2</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Courses which do NOT include a laboratory:</td>
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<td></td>
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<tr>
<td>Anthropology 1</td>
<td></td>
<td></td>
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<tr>
<td>Biology 8, 14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course from other college:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B3 LABORATORY ACTIVITY</td>
<td>Any science course in Area B1 or B2 which includes a lab fulfills this requirement. Check appropriate box.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B4 MATHEMATICS</td>
<td>The course used to fulfill B4 must be completed with a &quot;C&quot; grade or better.</td>
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</tr>
<tr>
<td>Mathematics 4, 5, H5, 16, 20, 26A, 26B, 26C, 27, 31, 32</td>
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<tr>
<td>Course from other college:</td>
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</tbody>
</table>
### AREA C. ARTS, LITERATURE, PHILOSOPHY AND FOREIGN LANGUAGE

Choose at least one course from the ARTS and one course from the HUMANITIES minimum 9 units

<table>
<thead>
<tr>
<th>C</th>
<th>IP</th>
<th>N</th>
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</thead>
</table>

#### ARTS
- Art 1A, 1B, 4, 5, 6, 7, 8, 12A, 12B, 12C, 17A, 18A, 19A, 25A
- Dance: Physical Education 20
- Music 1, 2A, 2B, 3A, 3B, 10, 11, 12, 13, 21A, 21B, 21C, 210
- Theatre Arts 1, 2, 7, 10
  - Course from other college:

#### HUMANITIES
- English 1B, 16*, 20, 25, 30A, 30B, 31, 35, 40A, 40B, 48A, 46B, 47
- Foreign Language: French 1, 2, 3, 4; Spanish 1, 2, 3, 4
- Philosophy 6, 8, 20A, 20B
- Religious Studies 1, 5A, 5B, 10, 15
- Speech 5
- Theatre Arts 4, 16*
  - Course from other college:

#### ONE ADDITIONAL COURSE FROM ANY OF THE ABOVE COURSES LISTED UNDER CI OR C2

<table>
<thead>
<tr>
<th>C</th>
<th>IP</th>
<th>N</th>
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</thead>
</table>

#### AREA D. SOCIAL, POLITICAL AND ECONOMIC INSTITUTIONS AND BEHAVIOR

Choose courses from at least TWO different subject areas in AREA D minimum 9 units

<table>
<thead>
<tr>
<th>C</th>
<th>IP</th>
<th>N</th>
</tr>
</thead>
</table>

#### UNITED STATES HISTORY REQUIREMENT FOR CSU GRADUATION
- History 17A or 17B
  - Course from other college:

#### UNITED STATES CONSTITUTION AND AMERICAN IDEALS REQUIREMENT FOR CSU GRADUATION
- Political Science 1B
  - Course from other college:

#### ONE ADDITIONAL COURSE FROM AREA D

<table>
<thead>
<tr>
<th>C</th>
<th>IP</th>
<th>N</th>
</tr>
</thead>
</table>

#### AREA E. LIFELONG UNDERSTANDING AND SELF-DEVELOPMENT

Choose one additional course not used above from the following:
- Administration of Justice 11
- Anthropology 1, 2, 3, 5
- Child Development 46
- Economics 1A, 1B
- Geography 1, 2
- History 3A, 3B, 5A, 5B, 6A, 6B, 7, 8A, 8B, 13, 14, 16, 17A, 17B, 18, 20, 21
- Political Science 1A, 1B, 2, 3, 10
- Psychology 1A, 3, 10, 11, 13, 16, 21, 30
- Religious Studies 5A, 5B, 10, 15
- Sociology 1, 2, 3, 7
- Speech 5
  - 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 F. CULTURAL UNDERSTANDING

<table>
<thead>
<tr>
<th>C</th>
<th>IP</th>
<th>N</th>
</tr>
</thead>
</table>

*Cross-listed courses are the same course listed under different departments. Allied Health 12 and PE 12 are the same course.
Guidance 5 and Psychology 5 are the same course. English 16 and TA 16 are the same course.

TOTAL
<table>
<thead>
<tr>
<th>Course</th>
<th>Note</th>
</tr>
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<tbody>
<tr>
<td>AJ 11, 12, 13, 14, 23, 24, 26, 27, 30, 32, 33, 34, 35</td>
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<td>AG 31</td>
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<td>AH 12, 20, 21, 25</td>
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<td>ANTHRO 1, 1L, 2, 3, 4, 5</td>
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<tr>
<td>ASTRONOMY 1</td>
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<td>ATHLTCS 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32</td>
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<td>BIOLOGY 1, 2, 3, 4, 5, 8, 10, 14, 16, 17, 18, 19, 20</td>
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<td>BUS ADM 1A, 1B, 2A, 2B, 3, 4A, 4B, 5, 6, 7, 8, 9, 11, 12, 16, 17, 18, 20</td>
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<td>BUS RE 30, 31, 32, 33, 34A, 34B, 35, 36, 37, 39, 40, 41, 42</td>
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<td>CHEM 1A, 1B, 5, 6, 7, 8A, 8B, 10, H10, 14</td>
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<td>CLDEV 6, 10, 15, 20, 27A, 27B, 32, 33, 34, 37, 39A, 39B, 41, 42, 43, 44, 45, 46, 47</td>
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<td>CON TECH 2, 3, 4, 5, 10, 11A, 11B, 12, 13, 14, 15, 16, 20, 21, 22, 23, 24, 25, 26, 30, 31</td>
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<td>COOP ED 3B, 48</td>
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<td>ECON 1A, 1B, 18</td>
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<td>ELCT 10, 31, 32, 33, 34</td>
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<tr>
<td>ENGL 1A, 1B, 2, 9, 12, 16, 20, 25, 30A, 30B, 31, 35, 46A, 46B, 47, 49, FT21, 30, 31, 32, 35, 37, 40, 41, 43, 45</td>
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<tr>
<td>FRENCH 1, 2, 3, 4, 25</td>
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<td>GEOG 1, 1L, 2, 3</td>
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<td>GEOL 1, 2, 3, 9, 10, 12</td>
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<td>GUID 4D, 4E, 5, 7</td>
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<tr>
<td>HIST 3A, 3B, 5A, 5B, 6A, 6B, 7, 8A, 8B, 13, 14, 16, 17A, 17B, H17A, H17B, 18, 20, 21, 45</td>
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<tr>
<td>IND STUDY 29, 49, 99</td>
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<td>JOURN 6, 8L</td>
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<td>MATH 4, 5, H5, 16, 20, 26A, 26B, 26C, 27, 31, 32</td>
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<tr>
<td>MICRO 1</td>
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<tr>
<td>OCEAN 10</td>
<td></td>
</tr>
<tr>
<td>OH 15, 17, 19, 31, 32, 34, 35, 36, 37, 39, 40, 43</td>
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<tr>
<td>PHILOS 6, 7, 8, 9, 20A, 20B</td>
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<tr>
<td>PHOTO 1A, 1B, 2, 3, 4, 5, 6</td>
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<tr>
<td>PE 2, 5, 6A, 6B, 6C, 6D, 6E, 7, 10A, 10B, 10C, 10D, 10G, 10H, 12, 13, 20, 21A, 1B, 21C, 21D, 21M, 21N, 21Q, 21R, 21T, 22, 23, 30, 31, 35, 40, 42, 43, 44, 47, 48, 49, 50, 51, 52, 53, 55, 56, 60</td>
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<tr>
<td>PHYSIO 1, 2</td>
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<td>POL SCI 1A, 1B, 2, 3, 10, 20, 30, 31, 32, 33, 34, 35</td>
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<td>PSYCH 1A, 1B, 3, 5, 8, 10, 11, 12, 13, 16, 21, 25, 30, 33, 43</td>
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<td>REL STS 1, 5A, 5B, 10, 15</td>
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<td>RSP THY 30, 31, 32, 33, 34, 41, 42</td>
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<tr>
<td>SOC 1, 2, 3, 7</td>
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<td>SPAN 1, 2, 3, 4, 25</td>
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<td>SPECIAL TOPICS 28, 48, 98</td>
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<td>SPEECH 5, 6, 7, 8, 9, 22, 23, 24</td>
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</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](http://www.assist.org). Independent (private) colleges make their own determination regarding transferability; contact your intended school for the most up-to-date information.
VIII.
PROGRAMS OF STUDY

“For me, not to go to college was, in a sense, not to become a full human being.”

-Margaret Mead
Programs of Study

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).

Special Agent/Investigator
Criminologist
Forensic Chemist
Probation Officer
Security Manager

Faculty
Full Time
Ron Fields

Degrees and Certificates Awarded

Associate in Science, Administration of Justice
Administration of Justice Certificate
Corrections Certificate
Forensic Specialist Certificate
PC 832 Certificate
Police Technician Specialist Certificate

Certificate Programs

ADMINISTRATION OF JUSTICE CERTIFICATE

Prepares the student for a variety of employment opportunities within the Criminal Justice System. Employment opportunities include Corrections, Law Enforcement, Traffic Enforcement, Probation, Parole, Security, Prevention Loss officer, and related Social Worker positions.

Requirements

24 units minimum
All 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>AJ 11</td>
<td>Introduction to Administration of Justice</td>
</tr>
<tr>
<td>3.0</td>
<td>AJ 12</td>
<td>Criminal Procedures</td>
</tr>
<tr>
<td>3.0</td>
<td>AJ 13</td>
<td>Criminal Law</td>
</tr>
<tr>
<td>3.0</td>
<td>AJ 14</td>
<td>Introduction to Evidence</td>
</tr>
<tr>
<td>3.0</td>
<td>AJ 26</td>
<td>Traffic Control</td>
</tr>
<tr>
<td>3.0</td>
<td>AJ 27</td>
<td>Crime and Delinquency</td>
</tr>
<tr>
<td>3.0</td>
<td>AJ 33</td>
<td>Writing for Criminal Justice</td>
</tr>
<tr>
<td>3.0</td>
<td>AJ 74</td>
<td>Multicultural Issues in Public Safety</td>
</tr>
</tbody>
</table>

CORRECTIONS CERTIFICATE

Prepares the student to meet the legal requirements established by Correction Standards and Training (CST), in order to be employed as a city or county correctional officer.

Requirements

6.5 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.5</td>
<td>AJ 64</td>
<td>Basic Corrections Officer Academy</td>
</tr>
</tbody>
</table>

Career Opportunities

Police Officer
Deputy Sheriff
Correctional Officer
Security Officer
Communication Technician

2000-2001 Victor Valley College Catalog
FINGERPRINT RECOGNITION AND CLASSIFICATION CERTIFICATE

Requirements
3.0 units minimum

<table>
<thead>
<tr>
<th>Units</th>
<th>AJ 111</th>
<th>Fingerprint Recognition and Classification 3.0</th>
</tr>
</thead>
</table>

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 |

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 110 | PC 832 Firearms .5 |
| AJ 63 | Level III Law Enforcement Academy 4.0 |

MODULE A RESERVE ACADEMY FIREARMS ONLY CERTIFICATE

Requirements
0.5 unit minimum

| Units | AJ 110 | 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 3.0 |

POLICE TECHNICIAN SPECIALIST CERTIFICATE

Prepares the student for a variety of employment opportunities with any Law Enforcement Agency, in a civilian capacity, as a Forensic Specialist or as an Evidence Technician.

Requirements
15.5 units minimum

All of the following must be completed:

| Units | AJ 13 | Criminal Law 3.0 |
|-------| AJ 26 | Traffic Control 3.0 |
| AJ 33 | Writing for Criminal Justice 3.0 |
| AJ 40 | Communication Skills for Interviewing and Interrogation 3.0 |
| AJ 67 | Field Evidence Technician 3.5 |

Associate Degree

To earn an Associate in Science degree with a major in Administration of Justice, complete a minimum of 18 units from any of the certificate requirements above or from any Administration of Justice courses and meet all Victor Valley College graduation requirements. AJ 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
Criminal Justice major
AJ 11, 13, POL SCI 32, MATH 5 or 32
CSU General Education-Breadth Requirements

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

See “Ornamental Horticulture”
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 Victor Valley College courses fulfill requirements for the Alcohol/Drug Studies Certificate at San Bernardino Valley College:

AH 25, ENGL 1A, PSYCH 1A, 8, 25, 33, SOC 1, SPEECH 9

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.

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

Degrees and Certificates Awarded
Nursing Assistant/ Home Health Aide Certificate

Certificate Program

NURSING ASSISTANT/ HOME HEALTH AIDE CERTIFICATE

This certificate prepares the student to take the state certification exam for nursing assistant and a job in a skilled nursing facility, long term care or home care.

Requirements
6 units minimum
AH 70 Nursing Assistant 4.5
AH 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. AH 38 (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

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 and B: ANTHRO 1, 2
Track B (Museum Studies): Add ART 12A, 12B, 12C, CIS 1
CSU General Education-Breadth Requirements

University of California, Riverside
Anthropology major
ANTHRO 1, 2, 3
Ethnic Studies: SOC 7, HIST 7, 13, 16 or ANTHRO 5
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
Complete the following requirements prior to transfer into a Architecture program if possible. There may be additional major related courses which are not listed below because they are in the process of being articulated or because we do not offer them. Completing as many of the courses below as well as the major related courses often awards the student bonus points in the selection process and thus better his/her chance of being accepted, particularly in impacted programs.

California State Polytechnic University, Pomona
Architecture five-year program
BIOLOGY 10, CIDG 7 & 8, ECON 1A or 1B, Math 4, PHYSICS 2A, SOC 1
Complete CSU General Education-Breadth Requirements.

California State Polytechnic University, San Luis Obispo
Architecture five-year program
MATH 26A, 26B, PHYSICS 1A, 1B
Other lower division major-related courses
Complete CSU General Education-Breadth Requirements.

California State Polytechnic University, San Luis Obispo
Architectural Engineering major
CHEM 1A, GEOL 1, MATH 26A, 26B, 26C, 27, PHYSICS 1A, 1B, 1C
Complete CSU General Education-Breadth Requirements.

ART AND DESIGN

A student may take art courses to fulfill the Humanities requirements; to become aware of art’s role in civilization; to develop a career in art; to become acquainted with an exciting, creative diversity of media; and to make a statement about him or herself for self-enrichment and expression. The art program provides for individual consultation with the Faculty. 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
Theatre Set Designer
Video Director

Faculty
Full time
John F. Foster
Richard Ripley

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 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
Art major
ART 1A, 1B, 12A, 12B, 12C, 25A, PHOTO 1A
Plans I, II, IV: Add ART 18A, CIDG 1A
Plan III: Add any foreign language 1 and 2 or equivalent proficiency
CSU General Education-Breadth Requirements

University of California, Riverside
Art major
Art Studio: ART 1A, 1B, 17A, 25A, PHOTO 1A +ART 5
Art History: ART 1A, 1B
Art History/Religious Studies: ART 1A, 1B, RELST 5A or 5B
Completion of IGETC recommended.

ATHLETICS

In keeping with the philosophy of providing programs to meet the diverse needs of students so that they may continue to develop physically, mentally, and emotionally throughout their lifetime, Victor Valley College supports and encourages students to participate in its athletic programs.

To meet this philosophic commitment, Victor Valley College athletic offerings include football, softball, men’s and women’s tennis, women’s volleyball, men’s and women’s basketball, wrestling, golf, 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.

SEASON OF SPORT

Fall
Basketball (M-W)
Football (M)
Soccer (W)
Volleyball (W)
Wrestling (M)

Spring
Basketball (M-W)
Baseball (M)
Golf (M-W)
Softball (W)
Tennis (M-W)

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
Dan Rowland
John Sweet

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

Certificate Programs

AUTOMOTIVE BRAKE AND SUSPENSION SPECIALIST CERTIFICATE

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

<table>
<thead>
<tr>
<th>Units</th>
<th>AUTO 68 Automotive Brakes</th>
<th>4.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 69 Automotive Suspension and Alignment</td>
<td>4.0</td>
<td></td>
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</table>

AUTOMOTIVE DRIVEABILITY SPECIALIST 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>AUTO 115 Trouble Shooting and Repair of Ignition and Fuel Systems</th>
<th>4.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 119 Automotive Computers, Electronics, and Electrical Systems</td>
<td>4.0</td>
<td></td>
</tr>
</tbody>
</table>

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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:

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 80 Basic Tune Up 2.0</td>
</tr>
<tr>
<td>AUTO 81 Automotive Lubrication Technician 2.0</td>
</tr>
<tr>
<td>AUTO 82 Automotive Tire Technician 2.0</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 51 Automotive Engines and Drive Trains 12.0</td>
</tr>
<tr>
<td>AUTO 52 Brakes, Wheel Alignment, and Suspension 12.0</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 53 Tune-up, Pollution Control, and Fuel Systems 12.0</td>
</tr>
<tr>
<td>AUTO 54 Automotive Computers, Electronics, and Electrical Systems 12.0</td>
</tr>
</tbody>
</table>

AUTOMOTIVE TRANSMISSION SPECIALIST CERTIFICATE

Requirements
11.0 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>AUTO 56 Manual Transmission Overhaul 4.0</td>
</tr>
<tr>
<td>AUTO 58 Electronic Computer Transmission Controls 2.0</td>
</tr>
<tr>
<td>AUTO 125* Automatic Transmission Overhaul 5.0</td>
</tr>
</tbody>
</table>

*AUTO 125 does not apply to the Associate degree

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>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 71 Automotive Window Tinting I 4.0</td>
</tr>
<tr>
<td>AUTO 72 Automotive Window Tinting II 4.0</td>
</tr>
</tbody>
</table>

BASIC INSPECTION AREA SMOG CERTIFICATE

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

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 54 Automotive Computers, Electronics, and Electrical Systems 12.0</td>
</tr>
<tr>
<td>AUTO 60A Basic Area California Clean Car Course 4.0</td>
</tr>
</tbody>
</table>

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>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 75 Cylinder Block Specialist 4.0</td>
</tr>
<tr>
<td>AUTO 83 Cylinder Head Specialist 4.0</td>
</tr>
<tr>
<td>AUTO 132 Cylinder Assembly Specialist 4.0</td>
</tr>
</tbody>
</table>
ENHANCED INSPECTION AREA SMOG TECHNICIAN CERTIFICATE

Requirements
13.5 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>AUTO 54</td>
<td>Automotive Computers, Electronics</td>
<td>12.0</td>
</tr>
<tr>
<td>AUTO 61</td>
<td>Advanced California Clean Air Car Course</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Associate Degree
To earn an Associate in Science degree with a major in Automotive Technology, complete a minimum of 18 units from any of the above certificates or from any Automotive Technology courses and meet all Victor Valley College graduation requirements. AUTO 38 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer
Not a transfer major.

BASIC SKILLS

The Basic Skills program consists of ten one-credit courses in reading, writing, and math. These courses assist students to improve their precollege skills before enrolling in college-level classes. The course presentations feature individualized instruction from teachers and tutors as well as use of current technology.

Students registering for any of these courses receive instruction through computers but will also compose traditional handwritten assignments. Basic skills teachers are available at least twenty hours a week. Tutors are also on hand a minimum of 20 hours each week. Individual sessions are set up by the student.

These open-entry, open-exit Basic Skills courses are a part of VVC’s learning assistance or developmental education program which is continued within the English and mathematics departments. The purpose of learning assistance (developmental education) courses - and other academic services or resources at the Academic Commons - is to assist students in using skills and strategies to become confident, independent learners.

The Academic Commons’ Basic Skills courses are one avenue for students to:

- adjust to the college learning environment
- review essential skills as in reading, writing, and mathematics
- apply self-discipline, time-management, and study skills
- successfully prepare themselves to meet VVC’s academic standards in college level classes
- acquaint themselves with the diversity and seriousness of academic work available at VVC
- prepare them for a better job and a lifetime toward learning

The basic skills credit/ non-credit courses do not apply to the Associate Degree.

The basic skills courses may be repeated a total of two times.

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. 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
Pam MacKay
Mark Smith
Ken Walker

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 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. BIOLOGY 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
Biology major
BIOLOGY 1, 2, 3, CHEM 1A, 1B, 8A, 8B, MATH 26A, 26B, 26C
One group from following: PHYSICS 2A, 2B or PHYSICS 1A, 1B, 1C, H1D
BS: Add CHEM 5
CSU General Education-Breadth Requirements

University of California, Riverside
Biology major
BIOLOGY 1, 2, 3, CHEM 1A, 1B, 8A, 8B, ENGL 1A, 1B, MATH
26A, 26B, PHYSICS 2A, 2B or PHYSICS 1A, 1B, 1C
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:

- ALDLHTH 39, 80, 85, 86
- CIS 1, 52, 61
- ECON 1A, 1B
- MATH 5, 20
- Any Business Administration course, except BAD 38
- Any Business Education Technology course, except BET 38
- Any Business Escrow course, except BUS ESC 38
- Any Business Real Estate course, except BUS RE 38

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 selection of courses in business and economics 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 a Certificate in Management as well as the Associate of Science Degree. The Certificate is designed for those students interested in entering the field of business upon completion of the Certificate and/or the Associate Degree. 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
Students completing the certificate or degree program will have entry-level management knowledge and skills. These programs will also indicate that the student has completed a program of skill upgrading for those already employed.

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, and manufacturing firms. Some possible position titles include:

- Accounting/Bookkeeping
- Administrative Assistant
- Department Manager
- Merchandise Buyer
- Merchandise Manager
- Office Manager
- Personnel Manager
- Purchasing Management
- Salesperson
- Store Manager

Faculty
Full Time
Peter Allan
David Hollomon
Oscar Odell Moon
Henry Young

Degrees and Certificates Awarded
Associate in Science, Business Administration
Management Certificate
Certificate Programs

BOOKKEEPING I CERTIFICATE

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>BAD 4A</td>
<td>2.0</td>
</tr>
<tr>
<td>BAD 4B</td>
<td>2.0</td>
</tr>
<tr>
<td>BAD 2D</td>
<td>3.0</td>
</tr>
<tr>
<td>BAD 42</td>
<td>3.0</td>
</tr>
<tr>
<td>BAD 51A</td>
<td>3.0</td>
</tr>
<tr>
<td>BAD 51B</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>BAD 1A (or 2A)</td>
<td>4.0</td>
</tr>
<tr>
<td>BAD 7</td>
<td>3.0</td>
</tr>
<tr>
<td>BAD 17</td>
<td>3.0</td>
</tr>
<tr>
<td>BAD 20</td>
<td>3.0</td>
</tr>
<tr>
<td>BAD 42</td>
<td>3.0</td>
</tr>
<tr>
<td>BAD 44</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 1</td>
<td>4.0</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>BAD 9</td>
<td>3.0</td>
</tr>
<tr>
<td>BAD 22</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 1A</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON 1B</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>BUS ADM 6</td>
<td>3.0</td>
</tr>
<tr>
<td>BAD 8</td>
<td>3.0</td>
</tr>
<tr>
<td>BAD 16</td>
<td>3.0</td>
</tr>
<tr>
<td>BAD 52</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Associate Degree

To earn an Associate in Science degree with a major in Business Administration, complete a minimum of 18 units from any of the certificate requirements above or from any Business Administration courses and meet all Victor Valley College graduation requirements. BAD 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
BAD 1A or 2A, 1B or 2B, 17, ECON 1A, 1B, CIS 1, MATH 5, 20
Contact a counselor for information on additional major coursework required in the following concentrations: Computer Information Systems, Information Management, International Business, Management Science

University of California, Riverside Business Administration major
BAD 1A or 2A, 1B or 28, 20, ECON 1A, 1B, CIS 1, MATH 20, 26A
Highly recommended: MATH 4, 5
Business Economics: Add MATH 26A, 26B
Completion of IGETC recommended.

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
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, or 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>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0</td>
<td>BAD 4A  Accounting on Microcomputers</td>
</tr>
<tr>
<td>1.0</td>
<td>BET 7   Internet Level I</td>
</tr>
<tr>
<td>2.0</td>
<td>BET 24  Records Management</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 36  Career Applications for Word Processing</td>
</tr>
<tr>
<td>1.0</td>
<td>BET 41A Operating System: Windows (1.0)</td>
</tr>
<tr>
<td>2.0</td>
<td>BET 42  Electronic Office Procedures and Administration (3.0)</td>
</tr>
<tr>
<td>2.0</td>
<td>BET 74  Office Machine Calculations (2.0)</td>
</tr>
</tbody>
</table>

3 units must be chosen from one of the following:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>BET 3A, B, C Beginning Word Processing/Typing: WordPerfect for Windows (3.0)</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 4A, B, C Beginning Word Processing/Typing: Word for Windows (3.0)</td>
</tr>
</tbody>
</table>

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

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

1 unit may be chosen from:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>BET 43  Business English (3.0)</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 68  Proofreading A/B/C (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 the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>BET 3A, B, C Beginning Word Processing/Typing: WordPerfect for Windows (3.0)</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 4A, B, C Beginning Word Processing/Typing: Word for Windows (3.0)</td>
</tr>
</tbody>
</table>

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

1-3 units may be chosen from:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>BET 7   Internet Level I (1.0)</td>
</tr>
<tr>
<td>1.0</td>
<td>BET 23T Machine Transcription (1.0)</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 36  Career Applications for Word Processing (3.0)</td>
</tr>
</tbody>
</table>

1 unit may be chosen from:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>BET 12A Spreadsheet: Excel for Windows (1.0)</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 43  Business English (3.0)</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 68  Proofreading A/B/C (3.0)</td>
</tr>
</tbody>
</table>

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>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>BET 7   Internet Level I</td>
</tr>
<tr>
<td>2.0</td>
<td>BET 12A, B Spreadsheet: Excel for Windows</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 36  Career Applications for Word Processing (3.0)</td>
</tr>
</tbody>
</table>

1 unit may be chosen from:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>BET 41A Operating System: Windows (1.0)</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 4A, B, C Beginning Word Processing/Typing: WordPerfect for Windows (3.0)</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 4A, B, C Beginning Word Processing/Typing: Word for Windows (3.0)</td>
</tr>
</tbody>
</table>

1-3 units may be chosen from:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>BET 18A DataBase: Access (1.0)</td>
</tr>
<tr>
<td>3.0</td>
<td>CIS 22  Fundamentals of Database Management Systems (3.0)</td>
</tr>
</tbody>
</table>

3 units must be chosen from the following:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>BET 43  Business English (3.0)</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 68  Proofreading A/B/C (3.0)</td>
</tr>
</tbody>
</table>

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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>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BET 36</td>
<td>Career Applications for Word Processing</td>
<td>3.0</td>
</tr>
<tr>
<td>BET 68A</td>
<td>Proofreading</td>
<td>1.0</td>
</tr>
<tr>
<td>BET 74</td>
<td>Office Machine Calculations</td>
<td>2.0</td>
</tr>
<tr>
<td>3 units must be chosen from one of the following:</td>
<td>3.0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BET 3A, B, C</td>
<td>Beginning Word Processing/Typing: WordPerfect for Windows</td>
<td>3.0</td>
</tr>
<tr>
<td>BET 4A, B, C</td>
<td>Beginning Word Processing/Typing: Word for Windows</td>
<td>3.0</td>
</tr>
<tr>
<td>3 units must be chosen from one of the following:</td>
<td>3.0</td>
<td></td>
</tr>
<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>
<tr>
<td>3 units must be chosen from one of the following:</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BET 43</td>
<td>Business English</td>
<td>3.0</td>
</tr>
<tr>
<td>BET 68</td>
<td>Proofreading A/ B/ C</td>
<td>3.0</td>
</tr>
<tr>
<td>3 units must be chosen from one of the following:</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BET 45</td>
<td>Communications for Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BAD 44</td>
<td>Business Communications</td>
<td>3.0</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>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BET 23M</td>
<td>Machine Transcription-Medical</td>
<td>3.0</td>
</tr>
<tr>
<td>BET 24</td>
<td>Records Management</td>
<td>2.0</td>
</tr>
<tr>
<td>BET 36</td>
<td>Career Applications for Word Processing</td>
<td>3.0</td>
</tr>
<tr>
<td>BET 41A</td>
<td>Operating System: Windows</td>
<td>1.0</td>
</tr>
<tr>
<td>3 units must be chosen from one of the following:</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BET 39</td>
<td>Medical Terminology</td>
<td>3.0</td>
</tr>
<tr>
<td>BET 80</td>
<td>Pharmacology</td>
<td>3.0</td>
</tr>
<tr>
<td>BET 85</td>
<td>Medical Insurance</td>
<td>3.0</td>
</tr>
<tr>
<td>BET 86</td>
<td>Medical Office Procedures</td>
<td>3.0</td>
</tr>
<tr>
<td>3 units must be chosen from one of the following:</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BET 3A, B, C</td>
<td>Beginning Word Processing/Typing: WordPerfect for Windows</td>
<td>3.0</td>
</tr>
<tr>
<td>BET 4A, B, C</td>
<td>Beginning Word Processing/Typing: Word for Windows</td>
<td>3.0</td>
</tr>
<tr>
<td>3 units must be chosen from one of the following:</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BET 43</td>
<td>Business English</td>
<td>3.0</td>
</tr>
<tr>
<td>BET 68</td>
<td>Proofreading A/ B/ C</td>
<td>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)

Group I - 5 units of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BET 24</td>
<td>Records Management</td>
<td>2.0</td>
</tr>
<tr>
<td>BET 36</td>
<td>Career Applications for Word Processing</td>
<td>3.0</td>
</tr>
<tr>
<td>BET 74</td>
<td>Office Machine Calculations</td>
<td>2.0</td>
</tr>
</tbody>
</table>
3 units must be chosen from one of the following:  
BET 3A, B, C  Beginning Word Processing/Typing:  
WordPerfect for Windows (3.0)  
BET 4A, B, C  Beginning Word Processing/Typing:  
Word for Windows (3.0)

Group II - 6 units of the following must be completed:  
3 units may be chosen from:  
BET 7  Internet Level I (1.0)  
BET 23T  Machine Transcription (1.0)  
BET 42  Electronic Office Procedures and Administration (3.0)  
BET 74  Office Machine Calculations (2.0)  
3 units may be chosen from one of the following:  
BAD 44  Business Communications (3.0)  
BET 45  Communications for Business (3.0)  
3 units may be chosen from one of the following:  
BET 65  Speedwriting (3.0)  
BET 66  Speedwriting/Shorthand Development and Review (3.0)  
3 units may be chosen from one of the following:  
BET 43  Business English (3.0)  
BET 68  Proofreading A/ B/ C (3.0)

SPREADSHEET PROCESSOR CERTIFICATE

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

Requirements
2 units minimum  
BET 12A, B  Spreadsheet: Excel for Windows  2.0

WORD PROCESSOR CERTIFICATE

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

Requirements
3 units minimum  
3 units must be chosen from one of the following:  
BET 3A, B, C  Beginning Word Processing/Typing: WordPerfect for Windows (3.0)  
BET 4A, B, C  Beginning Word Processing/Typing: Word for Windows (3.0)

Associate Degree

To earn an Associate in Science degree with a major in Business Education Technologies, complete 18 units from any of the certificate requirements above or from any Business Education Technologies courses, and meet all Victor Valley College graduation requirements. BET 38 (Cooperative Education) may be used as Elective credit but may not be used to fulfill major requirements.

Transfer

Not usually a transfer major. Some Business Education Technologies courses transfer as Electives or fulfill subject credit requirements. If a student chooses to pursue a bachelor’s degree in Business Administration, Business Education Technologies courses will not fulfill major requirements for transfer. See Business Administration for transfer requirements for this degree.

The following California universities offer a B.S. degree in Business Education for students who plan to teach business in grades 7-12:

- California State University
  - Los Angeles
  - Northridge

For further transferable courses, it is recommended to meet with your Counselor.

BUSINESS REAL ESTATE AND ESCROW

This program is designed to provide the student with the comprehensive knowledge needed to enter or invest in the real estate industry. A progressively challenging course curriculum starts with the Principles class, learning the language of real estate. This is a state-mandated course for those testing for a real estate salesperson's license. From there an “investor” student might pursue the more difficult Finance, Law, or Appraisal courses. The certificate program provides a structured approach to the course work. The Advanced Business Real Estate Certificate includes all the courses and Electives necessary to take the state’s Real Estate Broker’s examination.

The single largest business transaction entered into by most people is the sale or purchase of a home or other real estate. Consequently, people often seek the professional opinions and assistance of real estate salespersons, brokers, and appraisers. These professionals are familiar with the various forms of financing available in any given market. They keep abreast of actions taken by their county or city planners and become familiar with the zoning laws, tax laws, and real estate and contract law in order to better serve their clients. Real estate agents and brokers are not limited to selling real estate for they can also manage or develop property.

The escrow program provides the student with the training necessary for the escrow industry. The student is introduced to the basic principles of escrow before moving to the more advanced case studies and practices of the industry. A series of real estate courses acquaints the student with real estate agent skills. Additionally, business courses in accounting, law, human relations, math, and investments complete the program and will give the student an understanding of the business community and the responsibilities within the escrow industry.

The escrow officer is a highly trained individual whose knowledge of real estate transfer for private businesses and estate settlement procedures is essential for the operation of an escrow office.
Career Opportunities
Banking
Developer
Escrow Officer
Escrow Secretary
Loan Broker/Salesman
Property Manager
Real Estate Appraiser
Real Estate Broker
Real Estate Lawyer
Real Estate Salesperson
Real Estate Secretary
Securities Broker
Title Insurance Representative

Faculty
Full Time
Chris Grover

Degrees and Certificates Awarded
Associate in Science, Business Real Estate and Escrow
Advanced Business Real Estate Certificate
Basic Business Real Estate Certificate
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

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>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS RE 30</td>
<td>Real Estate Principles</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 31</td>
<td>Real Estate Practices</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 32</td>
<td>Legal Aspects of Real Estate I</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 34A</td>
<td>Real Estate Appraisal</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 36</td>
<td>Real Estate Finance</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 39</td>
<td>Real Estate Economics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

OR

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAD 1A</td>
<td>Elementary Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BAD 2A</td>
<td>Principles of Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 42</td>
<td>Real Estate Marketing</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>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAD 17</td>
<td>Legal Environment of Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS ESC 41</td>
<td>Escrow 1</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS ESC 42</td>
<td>Escrow 2</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 33</td>
<td>Legal Aspects of Real Estate II</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 34B</td>
<td>Advanced Real Estate Appraisal</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS RE 30</td>
<td>Real Estate Principles</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 32</td>
<td>Legal Aspects of Real Estate I</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 34A</td>
<td>Real Estate Appraisal</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 36</td>
<td>Real Estate Finance</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 42</td>
<td>Real Estate Marketing</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS RE 31</td>
<td>Real Estate Practices</td>
<td>3.0</td>
</tr>
<tr>
<td>BAD 2A</td>
<td>Principles of Accounting</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>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS RE 30</td>
<td>Real Estate Principles</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 31</td>
<td>Real Estate Practices</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 32</td>
<td>Legal Aspects of Real Estate I</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS ESC 41</td>
<td>Escrow 1</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS ESC 42</td>
<td>Escrow 2</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>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAD 17</td>
<td>Legal Environment of Business</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>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS RE 30</td>
<td>Real Estate Principles</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 34A</td>
<td>Real Estate Appraisal</td>
<td>3.0</td>
</tr>
</tbody>
</table>

2000-2001 Victor Valley College Catalog
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>BUS RE 30</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 34A</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 34B</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 35</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 39</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>BUS RE 31</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 37</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 41</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>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS ESC 41</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS ESC 42</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS ESC 43</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 30</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 32</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 36</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>BUS RE 37</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS RE 41</td>
<td>3.0</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.

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. BUS ESC 38 (Cooperative Education) and BUS RE 38 (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 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 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
Chemistry major
BA and BS (ACS certified): CHEM 1A, 1B, 5, MATH 26A, 26B
One group from: PHYSICS 2A, 2B or PHYSICS 1A, 1B, 1C, H1D
One course from: BIOLOGY 1, 10
Any course in a foreign language
Biochemistry major: BIOLOGY 1, 2, 3, CHEM 1A, 1B, 5, MATH 26A, 26B
One group from: PHYSICS 2A, 2B or PHYSICS 1A, 1B, 1C, H1D
Any course in a foreign language
CSU General Education-Breadth Requirements

University of California, Riverside
Chemistry major
BA: CHEM 1A, 1B, 5, 8A, 8B, MATH 26A, 26B, PHYSICS 1A, 1B, 1C or 2A, 2B, ENGL 1A, 1B, ENGL 2 or PHIL 7
BS: CHEM 1A, 1B, 5, 8A, 8B, MATH 26A, 26B, 26C, 27, PHYSICS 1A, 1B, 1C, H1D, ENGL 1A, 1B, ENGL 2 or PHIL 7

University of California, Riverside
Biochemistry major
BIOLOGY 1, 2, CHEM 1A, 1B, 8A, 8B, MATH 26A, 26B, 26C, PHYSICS 2A, 2B, or PHYSICS 1A + 1B + 1C
Biology and Chemistry emphasis: Add CHEM 5
ENGL 1A, 1B, ENGL 2 or PHIL 7

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

**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

**Licensing Requirements**

**Title 5:** Students who desire to teach in publicly-funded programs such as Head Start or State Preschool must obtain a Child Development Permit which is issued by the State of California Commission on Teacher Credentialing. The employing agency will assist students in obtaining this permit. Under Title 5 regulations, Child Development Permits are required for the following positions: Assistant, Associate Teacher, Teacher, Master Teacher, Site Supervisor, and Program Director.

**Title 22:** The Child Development Department offers courses that prepare students for employment in early childhood programs that are licensed by the Department of Social Services under Title 22 regulations (e.g., church sponsored, for profit centers, other privately-funded programs). It is recommended that students complete the following courses as these fulfill the mandated requirements set forth by the Department of Social Services to become a fully qualified preschool teacher. Students' transcripts serve as verification of completion of required course work.

**Group I - Complete all of the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLDDEV 6</td>
<td>3.0</td>
</tr>
<tr>
<td>CLDDEV 46</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLDDEV 27A*</td>
<td>4.0</td>
</tr>
<tr>
<td>CLDDEV 27B*</td>
<td>4.0</td>
</tr>
<tr>
<td>CLDDEV 32</td>
<td>3.0</td>
</tr>
<tr>
<td>CLDDEV 33</td>
<td>3.0</td>
</tr>
<tr>
<td>CLDDEV 34</td>
<td>3.0</td>
</tr>
<tr>
<td>CLDDEV 43</td>
<td>3.0</td>
</tr>
<tr>
<td>CLDDEV 44</td>
<td>3.0</td>
</tr>
<tr>
<td>CLDDEV 45</td>
<td>3.0</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**

**Title 5:** Completion of this certificate fulfills the required education units for Associate Teacher certification in Title 5 programs. Experience teaching in children's programs (50 days of 3+ hours per day within 2 years) is also required.

**Title 22:** Completion of this certificate fulfills the required education units for Teacher certification in Title 22 programs.

**Requirements**

<table>
<thead>
<tr>
<th>Units minimum</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>3.0</td>
</tr>
</tbody>
</table>

*All of the following must be completed:

- CLDDEV 6 Child, Family, and Community
- CLDDEV 27A Directed Teaching in Children's Programs
- CLDDEV 27B Directed Teaching in Children's Programs
- CLDDEV 46 Child Growth and Development
- ENGL 1A English Composition and Reading
- SPEECH 6 Human Communication
- OX
- SPEECH 8* Group Discussion

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

*Recommended for students transferring to a four-year college or university.
**Title 5:** Completion of this certificate fulfills the required education units for Teacher certification in Title 5 programs. Experience teaching in children’s programs (175 days of 3+ hours per day within 4 years) is also required for Teacher certification.

**Requirements**

46 units minimum

Completion of Level I: Associate Teacher certificate requirements plus the following courses:

<table>
<thead>
<tr>
<th>Group I - All of the following must be completed:</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLDDEV 42 Health/ Safety and Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>AH 12/ PE 12 Contemporary Problems in Personal and Community Health</td>
<td>3.0</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY 10* General Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>SPANISH  25 Beginners Conversational Spanish</td>
<td>3.0</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>SPANISH  1* Elementary Spanish</td>
<td>5.0</td>
</tr>
<tr>
<td>SOC 1 Introduction to Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 8 Identifying and Helping Survivors of Dysfunctional Families</td>
<td>3.0</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>PSYCH 10* Developmental Psychology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Group II - Choose 11 units from the following: 11.0

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLDDEV 10 Introduction to Childhood Education (3.0)</td>
</tr>
<tr>
<td>CLDDEV 15 Family Day Care Provider (3.0)</td>
</tr>
<tr>
<td>CLDDEV 32 Montessori Methods of Education (3.0)</td>
</tr>
<tr>
<td>CLDDEV 33 Art Experiences for Young Children (3.0)</td>
</tr>
<tr>
<td>CLDDEV 34 Language Experiences for Young Children (3.0)</td>
</tr>
<tr>
<td>CLDDEV 37 The Child with Special Needs (3.0)</td>
</tr>
<tr>
<td>CLDDEV 41 The Learning Child-The Middle Years (3.0)</td>
</tr>
<tr>
<td>CLDDEV 43 Introduction to the High/Scope Curriculum (3.0)</td>
</tr>
<tr>
<td>CLDDEV 44 Math and Science Experiences for Young Children (2.0)</td>
</tr>
<tr>
<td>CLDDEV 45 Music and Movement Experiences for Young Children (2.0)</td>
</tr>
<tr>
<td>CLDDEV 50 Infant Care and Education (3.0)</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.

Note: Effective Fall 1997, all applicants for the Level II Certificate will be required to complete a portfolio. Details about completing this portfolio will be available from the Child Development department.

---

**Title 22:** Completion of this certificate fulfills the required education units for Director in Title 22 programs. If the individual has an associate degree, two years of teaching experience in children’s programs is also required for Director certification if the individual has an associate degree in Child Development or related field. If the individual does not have an associate degree, four years of teaching experience in children’s programs is required.

Completion of Level II: Teacher certificate requirements plus the following courses:

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLDDEV 20 The Mentor Teacher/ Adult Supervisor</td>
</tr>
<tr>
<td>CLDDEV 39A Administration of Children’s Programs I</td>
</tr>
<tr>
<td>CLDDEV 39B Administration of Children’s Programs II</td>
</tr>
<tr>
<td>BAD 42 Business Mathematics</td>
</tr>
<tr>
<td>BET 43 Business English</td>
</tr>
<tr>
<td>OR</td>
</tr>
<tr>
<td>BA D 44 Business Communications</td>
</tr>
</tbody>
</table>

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

The Child Development offers a fourth certificate for students working toward self-employment in the field.

---

**FAMILY CHILD CARE CERTIFICATE**

Completion of this certificate exceeds the licensing requirements for Family Child Care providers, including a variety of topics that are relevant for a provider running a child care business in the home. The certificate is designed to provide a balance of business, curriculum, and child development issues for a new or experienced family child care provider.

**Requirements**

20 units minimum

All of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLDDEV 6 Child, Family, and Community</td>
</tr>
<tr>
<td>CLDDEV 15 Family Child Care Provider</td>
</tr>
<tr>
<td>CLDDEV 27A Directed Teaching in Children’s Programs</td>
</tr>
<tr>
<td>CLDDEV 42 Health, Safety, and Nutrition</td>
</tr>
<tr>
<td>CLDDEV 46 Child Growth and Development</td>
</tr>
<tr>
<td>CLDDEV 50 Infant Care and Education</td>
</tr>
<tr>
<td>CLDDEV 110 Advanced Business Practices for Family Child Care</td>
</tr>
<tr>
<td>(2 semesters required for certificate)</td>
</tr>
</tbody>
</table>

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

To earn an Associate in Science degree with a major in Child Development, complete a minimum of 18 units from any of the certificate requirements above or from any Child Development courses, and meet all Victor Valley College graduation requirements. CLD DEV 38 (Cooperative Education) may be used for Elective credit but may not be used to fulfill major requirements.

**Transfer**

To pursue a bachelor's degree, complete the following courses prior to transfer if possible:

**California State University, San Bernardino**

**Human Development major**

**Child Development Track I** (non-teaching emphasis):

- BIOLOGY 10, CLDDEV 27A, 27B, 46, PSYCH 1A, 10, SOC 1, MATH 20

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**

- BIOLOGY 1 or 10; 8; ASTRO 1 or CHEM 10; GEOLOGY 1 or 2 or GEOGRAPHY 1 + 1L; PSYCH 1A

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**COMPUTER INFORMATION SYSTEMS**

The Computer Information Systems (CIS) department provides training for those persons who plan to work within a technical, computer-centered environment. Because of the widespread use of computers in our society, employment opportunities are found in a multitude of different environments such as general business, communications industries, manufacturing, environmental engineering, education, medical technology, and banking and finance as well as computer information systems.

The program is specifically designed to provide the student with practical training which would be valuable and useful in the computer programming workplace. For course descriptions, see Section IX of this catalog.

**Career Opportunities**

- Data Administrator
- Data Entry Operator
- Education Specialist
- Technical Writer
- Production Control Clerk
- Technical Research Assistant
- Microcomputer Technical Support
- Programmer
- Programming Librarian
- Programmer/Analyst
- Data Control Clerk
- Documentation Clerk
- User Support Specialist
- Quality Control Specialist
- Technical Support Specialist
- Management Technical Assistant
- Computer Operations Management
- Systems Analyst
- Computer Operator
- Computer Training Specialist
- Information Center Specialist
- Web Master
- Web Page Development
- Network Specialist
- Network Administrator
- Network Support Specialist
- Multimedia Specialist
- Electronic Graphics Artist

---

**Degrees and Certificates Awarded**

- Associate in Science, Computer Information Systems
- Networking Specialist Certificate
- Programming I Certificate
- Programming II Certificate
- Productivity Software Specialist Certificate
- Web Authoring Certificate

**Certificate Programs**

**NETWARE CERTIFICATE**

**Requirements**

- **10.5 units minimum**

  All of the following must be completed:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 25</td>
<td>NetWare TCP/IP Administration</td>
<td>2.0</td>
</tr>
<tr>
<td>CIS 26</td>
<td>NetWare 4 Advanced Administration</td>
<td>2.0</td>
</tr>
<tr>
<td>CIS 27</td>
<td>NetWare Installation and Configuration</td>
<td>2.0</td>
</tr>
<tr>
<td>CIS 71</td>
<td>Network Technology</td>
<td>1.0</td>
</tr>
<tr>
<td>CIS 74</td>
<td>NetWare 4 Administration</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 77</td>
<td>NetWare Service and Support</td>
<td>2.0</td>
</tr>
</tbody>
</table>
NETWORK SPECIALIST CERTIFICATE

This certificate program prepares the student to begin a career in computer networking working with various, popular platforms including UNIX and MS NT.

Requirements
17 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></td>
<td>CIS 23</td>
<td>Introduction to Operating Systems: UNIX</td>
</tr>
<tr>
<td>3.0</td>
<td>CIS 24</td>
<td>Fundamentals of Data Communication</td>
</tr>
<tr>
<td>2.0</td>
<td>CIS 39</td>
<td>Windows95®</td>
</tr>
<tr>
<td>OR</td>
<td>CIS 40</td>
<td>Intro Windows NT</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 41</td>
<td>Windows NT Server Admin</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 50</td>
<td>Computer Ethics</td>
</tr>
<tr>
<td>2.0</td>
<td>CIS 67</td>
<td>Fundamentals of Networking</td>
</tr>
<tr>
<td>2.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PRODUCTIVITY SOFTWARE SPECIALIST CERTIFICATE

This certificate trains the student to become a well-rounded microcomputer user skilled in all the software that is common in business offices.

Requirements
25 units minimum
Group I - 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></td>
<td>CIS 1</td>
<td>Computer Literacy</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 3</td>
<td>Foundations of Computer Technology</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 5</td>
<td>Introduction to Systems Analysis</td>
</tr>
<tr>
<td>3.0</td>
<td>CIS 32A</td>
<td>C++ Module A</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 32B</td>
<td>C++ Module B</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 33</td>
<td>Programming Visual BASIC</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 44A</td>
<td>Java A</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 44B</td>
<td>Java B</td>
</tr>
<tr>
<td>&amp; CIS</td>
<td>CIS 50</td>
<td>Computer Ethics</td>
</tr>
<tr>
<td>2.0</td>
<td>CIS 64</td>
<td>Computer Mathematics</td>
</tr>
<tr>
<td>3.0</td>
<td>ENGL 12</td>
<td>Technical Writing</td>
</tr>
<tr>
<td>3.0</td>
<td>OR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BAD 44</td>
<td>Business Communications</td>
</tr>
<tr>
<td>3.0</td>
<td></td>
<td></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></td>
<td>CIS 1</td>
<td>Computer Literacy</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 3</td>
<td>Foundations of Computer Technology</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 5</td>
<td>Introduction to Systems Analysis</td>
</tr>
<tr>
<td>3.0</td>
<td>CIS 32A</td>
<td>C++ Module A</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 32B</td>
<td>C++ Module B</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 33</td>
<td>Programming Visual BASIC</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 44A</td>
<td>Java A</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 44B</td>
<td>Java B</td>
</tr>
<tr>
<td>&amp; CIS</td>
<td>CIS 50</td>
<td>Computer Ethics</td>
</tr>
<tr>
<td>2.0</td>
<td>CIS 64</td>
<td>Computer Mathematics</td>
</tr>
<tr>
<td>3.0</td>
<td>ENGL 12</td>
<td>Technical Writing</td>
</tr>
<tr>
<td>3.0</td>
<td>OR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BAD 44</td>
<td>Business Communications</td>
</tr>
<tr>
<td>3.0</td>
<td></td>
<td></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 Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CIS 4</td>
<td>Object-oriented Software Design</td>
</tr>
<tr>
<td>3.0</td>
<td>CIS 8</td>
<td>Assembly Language Programming</td>
</tr>
<tr>
<td>3.0</td>
<td>CIS 32C</td>
<td>C++ Module C</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 34</td>
<td>Advanced VB Programming A or B</td>
</tr>
<tr>
<td>4.0</td>
<td>OR</td>
<td></td>
</tr>
</tbody>
</table>

VISUAL BASIC PROGRAMMING CERTIFICATE

Requirements
16 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></td>
<td>CIS 33</td>
<td>Introduction to Visual Basic Programming</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 13</td>
<td>Advanced VB Programming A</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 14</td>
<td>Advanced VB Programming B</td>
</tr>
<tr>
<td>4.0</td>
<td>CIS 15</td>
<td>Advanced VB Programming C</td>
</tr>
<tr>
<td>4.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
WEB AUTHORMG 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>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 35</td>
<td>Multimedia Presentations</td>
<td>4.0</td>
</tr>
<tr>
<td>CIS 36</td>
<td>Introduction to Internet/WWW</td>
<td>2.0</td>
</tr>
<tr>
<td>CIS 37</td>
<td>Introduction to HTML</td>
<td>2.0</td>
</tr>
<tr>
<td>CIS 42</td>
<td>Client-Side Scripting</td>
<td>4.0</td>
</tr>
<tr>
<td>CIS 50</td>
<td>Computer Ethics</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Associate Degree

To earn an Associate in Science degree with a major in Computer Information Systems, complete a minimum of 18 units from any of the certificate requirements above or from any Computer Information Systems courses and meet all Victor Valley College graduation requirements. CIS 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: (Note that an alternative to the CIS transfer major that appeals to many students is Administration, with an emphasis in CIS. See Business Administration.)

For the most current information, visit www.assist.org.

California State University, San Bernardino
Computer Science major
CIS 32A, 32B, MATH 26A, 26B, 26C, PHYSICS 1A, 1B, 1C, H 1D
One course from: BIOLOGY 1, 10
One additional science course with lab from: BIOLOGY 1, 2, 3, 10, CHEM 10, GEOL 1
CSU General Education-Breadth Requirements

University of California, Riverside
Computer Science major
CHEM 1A, MATH 26A, 26B, 26C, 27, ENGL 1A, 1B, PHYSICS 1A, 1B, 1C
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)

Computer integrated design and graphics is the language of manufacturing, architecture, engineering and animation. Students entering programs in this area will be trained in conventional and state-of-the-art computer applied techniques.

The Computer Integrated Design and Graphics program offers an Associate of Science in Drafting as well as eight certificates. The certificates are designed to prepare students with entry level skills necessary for a wide range of occupations as technicians, computer integrated designers, and in the constantly expanding field of animation.

With the evolutionary integration of computers into all our lives, the program and classes provide knowledge and experience applicable not only to the computer-integrated design and graphics profession, but to many other disciplines as well.

Career Opportunities

Architect
Architectural Drafter
CAD Operator
Computer Animator
Community College Instructor
Civil Drafter
Desk-Top Publisher
Electrical Drafter
Electronics Drafter
Graphics Designer
Interior Designer
Landscape Architect
Mechanical Drafter
Rendering Specialist
Space Planner
Structural Drafter
Technical Illustrator

Faculty
Full Time
Nord Embroden
Terry LaFontaine
Gary Menser

Degrees and Certificates Awarded
Associate in Science, Drafting
Architectural Drafting Certificate
Computer Aided Drafting Certificate
Mechanical Drafting Certificate
Certificate Programs

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

Requirements
17.5 units minimum
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>CIDG 1A Mechanical Drafting</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 2A Architectural Drafting - Residential</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 2B Architectural Drafting - Commercial</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 6A Two Dimensional AutoCAD</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 6B Advanced Two Dimensional AutoCAD</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 24 Architectural Computer Aided Design</td>
</tr>
<tr>
<td>1.5</td>
<td>CIDG 55 Computer Aided Design Management</td>
</tr>
<tr>
<td>0.5</td>
<td>CARDEV 56 Career Resume Writing and Job</td>
</tr>
<tr>
<td>0.5</td>
<td>CARDEV 57 Employment Interviews</td>
</tr>
</tbody>
</table>

ARCHITECTURAL DRAFTING CERTIFICATE

Provides a thorough background and skill level for the architectural drafting technician. This certificate prepares one for technical drafting work in architecture, interior design, landscape design, structural drafting and design, civil engineering, rendering and technical illustration.

Requirements
36 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>CIDG 1A Mechanical Drafting</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 2A Architectural Drafting - Residential</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 2B Architectural Drafting - Commercial</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 3 Blueprint Reading for Construction</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 6A Two Dimensional AutoCAD</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 6B Advanced Two Dimensional AutoCAD</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 7 Architectural Design</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 8 Architectural Presentation</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 24 Architectural Computer Aided Design</td>
</tr>
<tr>
<td>3.0</td>
<td>CT 5 Technical Sketching</td>
</tr>
<tr>
<td>3.0</td>
<td>CT 30 Advanced Technical Math</td>
</tr>
<tr>
<td></td>
<td>OK</td>
</tr>
<tr>
<td>3.0</td>
<td>CT 50 Technical Mathematics</td>
</tr>
</tbody>
</table>

Group II - 3 units of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>CIDG 1B Advanced Mechanical Drafting (3.0)</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 4 Blueprint Reading for Industry (3.0)</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 6C Solid Modeling and Three Dimensional AutoCAD (3.0)</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 23 Customizing AutoCAD (3.0)</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 25 Computer Aided Mapping (3.0)</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 38 Cooperative Education (1.0-3.0)</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 48 Special Topics (1.0-3.0)</td>
</tr>
</tbody>
</table>

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

Requirements
12.5 units minimum
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>CIDG 6A Two Dimensional AutoCAD</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 6B Advanced Two Dimensional AutoCAD</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 23 Customizing AutoCAD</td>
</tr>
<tr>
<td>1.5</td>
<td>CIDG 55 Computer Aided Design Management</td>
</tr>
<tr>
<td>0.5</td>
<td>CARDEV 56 Career Resume Writing and Job</td>
</tr>
<tr>
<td>0.5</td>
<td>CARDEV 57 Employment Interviews</td>
</tr>
<tr>
<td>1.0</td>
<td>BET 1 Beginning Keyboarding/Typing</td>
</tr>
</tbody>
</table>

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

Requirements
17.5 units minimum
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>CIDG 6A Two Dimensional AutoCAD</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 6B Advanced Two Dimensional AutoCAD</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 23 Customizing AutoCAD</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 55 Computer Aided Design Management</td>
</tr>
<tr>
<td>0.5</td>
<td>CARDEV 56 Career Resume Writing and Job</td>
</tr>
<tr>
<td>0.5</td>
<td>CARDEV 57 Employment Interviews</td>
</tr>
</tbody>
</table>

COMPUTER AIDED DRAFTING CERTIFICATE

Provides a thorough background and skill level for the computer aided drafting technician. This certificate prepares one for technical drafting work in computer animation, mapping, desktop publishing, and graphics design.

Requirements
28 units minimum
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 30 Advanced Technical Math</td>
</tr>
<tr>
<td>3.0</td>
<td>CT 50 Technical Mathematics</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 6A Two Dimensional AutoCAD</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 6B Advanced Two Dimensional AutoCAD</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 23 Customizing AutoCAD</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 25 Computer Aided Mapping</td>
</tr>
<tr>
<td>3.0</td>
<td>CIDG 26 Computer Aided Design</td>
</tr>
<tr>
<td>3.0</td>
<td>BET 1 Beginning Keyboarding/Typing</td>
</tr>
</tbody>
</table>

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COMPUTER ANIMATION TECHNICIAN I
CERTIFICATE

Requirements
17.5 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>CIDG 6A</td>
<td>Two Dimensional AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 6B</td>
<td>Advanced Two Dimensional AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 26A</td>
<td>3D Studio Max I</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 26B</td>
<td>3D Studio Max II</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 26C</td>
<td>3D Studio Max III</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 55</td>
<td>Computer Aided Design Management</td>
<td>1.5</td>
</tr>
<tr>
<td>CARDEV 56</td>
<td>Career Resume Writing and Job Applications</td>
<td>0.5</td>
</tr>
<tr>
<td>CARDEV 57</td>
<td>Employment Interviews</td>
<td>0.5</td>
</tr>
</tbody>
</table>

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

Requirements
17.5 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>CIDG 6A</td>
<td>Two Dimensional AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 6B</td>
<td>Advanced Two Dimensional AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 6C</td>
<td>Solids Modeling and Three Dimensional AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 23</td>
<td>Customizing AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 55</td>
<td>Computer Aided Design Management</td>
<td>1.5</td>
</tr>
<tr>
<td>CARDEV 56</td>
<td>Career Resume Writing and Job Applications</td>
<td>0.5</td>
</tr>
<tr>
<td>CARDEV 57</td>
<td>Employment Interviews</td>
<td>0.5</td>
</tr>
<tr>
<td>CT 48</td>
<td>Special Topics/ Mechanical Desktop</td>
<td>3.0</td>
</tr>
</tbody>
</table>

MECHANICAL DRAFTING CERTIFICATE

Provides a thorough background and skill level for the mechanical drafting technician. This certificate prepares one for technical drafting work in automotive, aircraft, marine, mechanical, and engineering fields.

Requirements
33 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>CIDG 1A</td>
<td>Mechanical Drafting</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 1B</td>
<td>Advanced Mechanical Drafting</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 4</td>
<td>Blueprint Reading for Industry</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 6A</td>
<td>Two Dimensional AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 6B</td>
<td>Advanced Two Dimensional AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 6C</td>
<td>Solid Modeling and Three Dimensional AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 23</td>
<td>Customizing AutoCAD</td>
<td>3.0</td>
</tr>
</tbody>
</table>

CONSTRUCTION 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 and Public Works. 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
Faculty
Nord Embroden

Degrees and Certificates Awarded

Certificate Programs

BUILDING CONSTRUCTION CERTIFICATE
Provides the basic knowledge necessary for job opportunities in a wide variety of specific construction trades: bricklayer, carpenter, construction salesperson, cement mason, drywall specialist, framer, grader, heating, ventilation and air conditioning technician, painter, plumber, plaster, millwright, and surveying technician.

Requirements
31 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>CT 00</td>
<td>Technical Sketching</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 01</td>
<td>Construction Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>CT 02</td>
<td>Advanced Technical Math</td>
<td>3.0</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT 03</td>
<td>Technical Math</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 04</td>
<td>Construction Estimation</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 05</td>
<td>Materials of Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 00</td>
<td>Blueprint Reading for Construction</td>
<td>3.0</td>
</tr>
</tbody>
</table>

BUILDING INSPECTION CERTIFICATE
Provides a thorough background and skill level for employment in the building inspection field. This certificate prepares you for employment in City and County Building and Safety departments and as a corporate or private industry job site building inspector.

Requirements
32 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>CT 00</td>
<td>Technical Sketching</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 01</td>
<td>Building Codes and Zoning</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 02</td>
<td>Uniform Building Code 1</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 03</td>
<td>Uniform Building Code 2</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 04</td>
<td>Uniform Mechanical Code</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 05</td>
<td>Uniform Plumbing Code</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 06</td>
<td>National Electrical Code</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 07</td>
<td>Office Procedures and Field Inspection</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 08</td>
<td>Construction Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>CT 09</td>
<td>Advanced Technical Math</td>
<td>3.0</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT 10</td>
<td>Technical Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>CIDG 00</td>
<td>Blueprint Reading for Construction</td>
<td>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, tradespecific knowledge.

Requirements
37 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>CT 00</td>
<td>Construction Management</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 01</td>
<td>Construction Law</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 02</td>
<td>Technical Sketching</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 03</td>
<td>Construction Financing</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 04</td>
<td>Building Codes and Zoning</td>
<td>3.0</td>
</tr>
<tr>
<td>CT 05</td>
<td>Construction Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>CT 06</td>
<td>Advanced Technical Math</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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ELECTRICAL TECHNICIAN CERTIFICATE

This certificate provides an overall basic knowledge for job opportunities in the electrical industry.

Requirements
17 units minimum
Group I - all of the following must be completed:
- CT 14 National Electrical Code 3.0
- CT 16 Construction Safety 3.0
- CT 20A Electrical Wiring 4.0
- CT MANF 87 Electrical Repair 3.0

Group II - 4 units of the following must be completed:
- CT 48 Special Topics 4.0
- CT MANF 88 Residential Maintenance and Repair 4.0

PLUMBING TECHNICIAN CERTIFICATE

This certificate provides an overall basic knowledge for job opportunities in the plumbing industry.

Requirements
17 units minimum
Group I - all of the following must be completed:
- CT 13 Plumbing Code 3.0
- CT 16 Construction Safety 3.0
- CT 24 Plumbing 4.0
- CT MANF 86 Plumbing Repair 3.0

Group II - 4 units of the following must be completed:
- CT 48 Special Topics 4.0
- CT MANF 88 Residential Maintenance and Repair 4.0

PUBLIC WORKS 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
28 units minimum
Group I - All of the following must be completed:
- CT 23 Surveying 4.0
- CT 50 Technical Mathematics 3.0
- CT PBWK 71 Introduction to Public Works 3.0
- CT PBWK 72 California Occupational Safety and Health 3.0
- CT PBWK 73 Plan Reading for Public Works 3.0

RESIDENTIAL MAINTENANCE TECHNICIAN CERTIFICATE

This certificate provides an overall basic knowledge for job opportunities in the residential repair industry.

Requirements
17 units minimum
Group I - all of the following must be completed:
- CT 16 Construction Safety 3.0
- CT 48 Special Topics 4.0
- CT MANF 88 Residential Maintenance and Repair 4.0

Group II - 8 units of the following must be completed:
- CT 20A Electrical Wiring 4.0
- CT 24 Plumbing 4.0
- CT 25 Concrete and Masonry 4.0
- CT 27 Framing 4.0

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 38 (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 a 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 or receive job placement assistance in certain programs. 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, 1:30-5:00 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 vocational 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.

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

Students may utilize their present work sites or receive job training placement assistance in certain programs. It is recommended that students contact the Co-op Office before enrolling if they do not have a pre-arranged work site.

**Occupational Cooperative Work Experience Education**

1-8 units Under the alternate plan, no other classes need to be taken that semester to receive credit for work experience.

1-4 units Under the parallel plan, students must enroll in a minimum of 7 semester units, including work experience.

Up to 16 units may be used for Elective credit for AA / AS degree and transfer to CSU.

**General Cooperative Work Experience Education**

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.

1-6 units Under the alternate plan, work experience need not be directly related to an educational goal. No other classes need to be taken that semester to receive credit for work experience.

1-3 units Under the parallel plan, students must enroll in a minimum of 7 semester units, including work experience. This type of work experience need not be directly related to an educational goal.

Students may utilize their present worksites or receive job placement assistance in certain programs.

**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.

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2000-2001 Victor Valley College Catalog
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
Allied Health
Art
Automotive Technology
Biology
Business Administration
Business Escrow
Business Education Technologies
Business Real Estate
Chemistry
Child Development
Computer Information Systems
Construction Technology
Drafting
Electronics
English
Fire Technology
General Work Experience
Mathematics
Music
Photography
Physical Science
Physics
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
Margaret Dunsmore
Allan Kumlin

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

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.

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.
Transfer
To pursue a bachelor’s degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Economics major
ECON 1A, 1B, MATH 5, MATH 20
CSU General Education-Breadth Requirements
Economics major
Social Science Teaching Credential Option:
All above courses
Add: ANTHRO 2, 3, GEOG 1 & 1L, 2, HIST 3A, 3B, 17A, 17B,
POLSCI 1B, PSYCH 1A, REL STS 10, SOC 1
CSU General Education Requirements

University of California, Riverside
Economics major
ECON 1A, 1B, MATH 26A, 26B
Completion of IGETC recommended.
Cooperative major with Admin. Studies: Add BAD 20, BAD 1A or 2A, CIS 1, MATH 20

EDUCATION

Victor Valley College does not offer a certificate or degree program in Education because teaching credential programs are only offered at accredited four-year colleges. However, Victor Valley College does offer the preparatory courses for transfer to majors which may be used for preparation towards the teaching credential. Education is the career field for those individuals who desire to teach in elementary and secondary schools. Education is a field of study that prepares students to participate as teachers and learning facilitators. Graduates in this field of study-bachelors degree and postgraduate study required—are prepared 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 FRENCH 2 or SPAN 2
2. Two semesters of college course work in a second language other than English by completing any two consecutive courses from the same language:
   FRENCH 1, 2, 3, 4, SPAN 1, 2, 3, 4

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 (see Table 1), Human Development/Child Development Track II (see Table 2), American Studies

Multiple Subject Waiver Programs
University of California, Riverside:
Biological Sciences, English, History, Mathematics, Music, Physical Education, Political Science, Social Sciences, Spanish, any of the sciences

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
MGM Teacher
Physically Handicapped Teacher
Pupil Personnel Services
Reading Teacher
Special Education Teacher
Vocational Teacher

**Degrees and Certificates Awarded**

Associate in Arts, Liberal Arts
Degree will vary with major.

**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:

*California State University, San Bernardino*
Liberal Studies major (see Table 1)
Human Development/Child Development Track II (see Table 2)

For the most recent updates, visit www.assist.org.

*University of California, Riverside*
Liberal Studies major
Multiple Subject Teaching Credential for Elementary Teaching
Choose one of the two options:
Foreign language - SPAN 1, 2, 3 or FRENCH 1, 2, 3
Mathematics - MATH 26A, 26B

Choose 8 or more units from the following four groups:

**Group I - Science**
One course from: BIOLOGY 1, 2 or 10, 3, 4, 8, 14
One course from: ASTRO 1, CHEM 1A, 1B, 5, 8A, 8B, GEOG 1,
GEOL 1, 2, PHYSICS 1A, 1B, 1C, 2A, 2B
One additional course from above

**Group II - Social Science**
One course from: HIST 3A, 3B
One course from: POL SCI 1B
One course from: AH 12, BIOLOGY 12, PE 12,
One course from: ANTHRO 2, 3, GEOG 2
One course from: PSYCH 1A, SOC 1
One additional course from: ANTHRO 1, 2, 3, BIOLOGY 12,
ECON 1A, 1B, GEOG 2, HIST 3A, 3B or H3B, 7, 8A, 8B, 13, 14,
16 or ANTHRO 5, HIST 17A or H17A, 17B or H17B, POL SCI
1B or H1B, 2, 10, PSYCH 1A or H1A, SOC 1, 7

**Group III - Humanities**
One course from: ENGL 40A, 40B, 46A, 46B
One course from: PHILOS 7, 8, 9, REL STS 1, 5A, 5B, 10
One additional course from: ENGL 9, 20, 25, 30A, 30B, 40A,
40B, 46A, 46B, 47, PHILOS 7, 8, 9, REL STS 1, 5A or 5B, 10,
TA 16

**Group IV - Fine Arts**
One course from: SPEECH 9
One course from: ART 1A, 1B, 6, 17A, 25A, PHOTO 1A + ART 5
One course from: MUSIC 1, 2A, 2B, 3A, 3B, 10, 13
One additional course from: MUSIC 1, 2A, 2B, 3A, 3B, 10, 13,
PE TA 20, 6

Note: One of the above courses must be a “performance” course.

Completion of IGETC recommended.

**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.

2000-2001 Victor Valley College Catalog
Preparation for Transfer to CSU-San Bernardino’s Liberal Studies Major Leading to the Multiple Subjects (K-6) Teaching Credential

This program allows students to waive the MSAT exam, and offers a broad preparation for elementary school teaching. Once at Cal State, students choose a concentration from almost any major available there, from which some courses can be applied to requirements for supplementary authorizations allowing them to teach single subjects in grades 9 and below. Completing these courses fulfills all course requirements for VVC’s A. A. degree in Liberal Arts.

A. LANGUAGE ARTS

☐ Written Communication
  Grade of “C” or better required
  ENGL 1A

☐ Oral Communication
  Grade of “C” or better required
  SPEECH 8 or 9

☐ Literature
  Choose One
  ENGL 16, 16, 40A, 40B, TA 4, 16

B. HUMANITIES AND ARTS

☐ Critical Thinking
  Grade of “C” or better required
  Choose One
  ENGL 2, PHILOS 7, 9

c1 Philosophy
  Choose One
  PHILOS 6, 8, 20A, 20B, REL STS 1, 5A, 5B, 10

☐ Foreign Language
  Choose One
  FRENCH 2, 3, 4, SPAN 2, 3, 4
  Note: Students seeking a bilingual emphasis are advised to complete SPAN 3 and 4

☐ Arts
  Choose One
  ART 1A, 1B, 5, 6. MUSIC 10, 11, 12, TA 1

C. MATH AND SCIENCES

☐ Mathematics
  Grade of “C” or better required
  Choose One
  MATH 4, 5 H5, 16, 26A, 32

☐ Life Science with Lab
  Choose One
  ANAT 1, 2, BIOL 1, 2, 3, 4, 10, MICRO 1, PHYSIO 1, 2

☐ Physical and Earth Sciences with Lab
  Choose One
  CHEM 1A, 10, GEOGRAPHY 1 + 1L (both required), GEOLOGY 1, 2, PHYSICS 1A, 2A, 10

☐ Special Topics in Science and Technology
  Choose One
  BIOL 8; CHEM 14, CIS 36

☐ Math and Science Elective
  CIS 1

D. SOCIAL & BEHAVIORAL SCIENCES

☐ American History and Civilization
  Choose One
  HISTORY 17A, 17B

☐ American Institutions
  POL SCI 1B

☐ World Cultures
  Choose One
  ANTHRO 2, 3; GEOG 2, HIST 3A, 3B

☐ Discipline Perspectives
  Choose One
  ANTHRO 1, 2, 3; ECON 1A, 1B, GEOG 2; POL SCI 1A, 10; PSYCH 1A, SOC 1, 2, 7

E. LIFELONG UNDERSTANDING

☐ The Whole Person
  Choose One
  AH 12, GUID 5. PE 12, PSYCH 3, 5, 21, 25, 30, 33, SOC 3

☐ Physical Education Activity
  Choose One
  PE 2, 5, 6A, 6B, 6C, 6D, 7, 10A, 10B, 10C, 10D, 10G, 10H, 13, 21A, 21M, 21Q

02/09/00
Table 2

**Preparation For Transfer To CSU-San Bernardino’s Human Development/Child Development Track II Major Leading To The Multiple Subjects (K-6) Teaching Credential**

This track allows students to waive the MSAT exam, and prepares them in the areas of child assessment, child guidance, developmentally-appropriate practices with children, cognitive development, individual differences in learning style, the value of play, parenting and family relations, and exceptional development. Completing these courses also fulfills all course requirements for the A.A. degree in Liberal Arts at VVC. Visit www.assist.org for any updates.

### Written Communication
- **Grade of “C” or better required**
- ENGL 1A

### Oral Communication
- **Grade of “C” or better required**
- SPEECH 8 or 9

### Literature
- **Choose One**
  - ENGL 1B, 40A, 40B
  - TA 4, 16

### Critical Thinking
- **Grade of “C” or better required**
- **Choose One**
  - PHILOS 7, 9
  - ENGL 2

### Philosophy
- **Choose One**
  - PHILOS 6, 8, 20A, 20B
  - REL STS 1, 5A, 5B, 10

### Foreign Language
- **Choose One**
  - FRENCH 2, 3, 4
  - SPAN 2, 3, 4

### Arts
- **Choose One**
  - ART 1A, 1B, 5, 6
  - MUSIC 10, 11, 12
  - TA 1

### Mathematics
- **Grade of “C” or better required**
- **Choose One**
  - MATH 4, 5, 16, 26A, 32

### Physical and Earth Sciences with lab
- **Choose One**
  - CHEM 1A, 10
  - GEOG 1 or 1L (both required)
  - GEOL 1, 2
  - PHYSICS 1A, 2A, 10

### Life Science with lab
- BIO 10

### Science and Technology
- **Choose One**
  - BIO 8; CHEM 14; CIS 36

### Mathematics and Natural Sciences Elective
- CIS 1

### American History
- **Choose One**
  - HIST 17A, 17B

### American Institutions
- POL SCI 1B

### World Cultures
- **Choose One**
  - ANTHRO 2, 3; GEOG 2; HIST 3A, 3B

### Discipline Perspectives
- **BOTH Required**
  - PSYCH 1A and
  - SOC 1, 2, or 7

### Lifelong Understanding: The Whole Person
- **Choose One**
  - AH 12; GUID 5; PE 12; PSYCH 3, 5, 21, 25, 30, 33; SOC 3

### Physical Education Activity
- **Choose One**
  - PE 2, 5, 7, 6A, 6B, 6C, 6D, 6E, 10A, 10B, 10C, 10D, 10G, 10H, 13, 21A, 21M, 21Q

### Child Development Core
- **ALL FOUR courses are required**
  - PSYCH 10
  - CD 27A
  - CD 27B
  - CD 46

04/04/00
The concentration in Electronics and computer technology is designed to prepare students for a variety of Career Opportunities in the fields of Electronics, computers, and related technologies.

The Electronics and Computer Technology Department offers an associate degree program in Electronics Engineering Technology with an emphasis in either Electronics or computers. Certificates offered in areas of specialization include: Opto-Electronics Technology, Telecommunications Technology, Consumer Electronics Technology, Industrial Electronics Technology, Biomedical Electronics Technology, and Computer Technology. Occupational certificates offered include Communications Electronics, and Digital Electronics. Transfer level courses are available for students preparing for the Bachelor of Science Degree in Electronics Engineering Technology. For course descriptions, see Section IX of this catalog.

Career Opportunities
Audio/Visual Systems Technician
Biomedical Electronics
Computer Technician
Electronics Technician
Engineering Technician
Field Service Technician
Laboratory Technician
Laser/Optical Technician
Microwave/Radar Technician
Quality Control Technician
Research and Development
Sales Representative, Electronic Equipment
Telecommunications Technician

Faculty
Full Time
Tom Faro
Khalid Rubayi

Degrees and Certificates Awarded
Associate in Science, Electronics and Computer Technology
Associate in Science, Electronics Engineering Technology
Associate Degree Electronics Engineering Technology Certificate
Computer Technology Certificate
Communication Electronics Certificate
Digital Electronics Certificate
Electronics Technology Certificate

Certificate Programs
ASSOCIATE DEGREE ELECTRONICS ENGINEERING TECHNOLOGY CERTIFICATE

Professional Preparation
Requirements
64.5-68.5 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>ELCT 31</td>
<td>DC Circuit Theory and Analysis</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 32</td>
<td>AC Circuit Theory and Analysis</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 33</td>
<td>Solid State Devices and Circuits</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 34</td>
<td>Solid State Circuit Analysis</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 71</td>
<td>Principles of Digital Logic and Circuits</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 73</td>
<td>Microprocessor Principles</td>
<td>4.0</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>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELCT 57</td>
<td>Technical Mathematics for Electronics I</td>
<td>3.0</td>
</tr>
<tr>
<td>ELCT 58</td>
<td>Technical Mathematics for Electronics II</td>
<td>3.0</td>
</tr>
<tr>
<td>ELCT 59</td>
<td>Technical Calculus for Electronics I</td>
<td>3.0</td>
</tr>
<tr>
<td>ELCT 60</td>
<td>Technical Calculus for Electronics II</td>
<td>3.0</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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 5</td>
<td>College Algebra</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 4</td>
<td>Trigonometry</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 26A</td>
<td>Analytic Geometry and Calculus</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH 26B</td>
<td>Analytic Geometry and Calculus</td>
<td>5.0</td>
</tr>
</tbody>
</table>

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 WC Humanities requirement* 3.0

6 units from the following must be completed:

Any courses that will satisfy the WC 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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELCT 31</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 32</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 33</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 34</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 35</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 36</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 53</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 54</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 57</td>
<td>3.0</td>
</tr>
<tr>
<td>ELCT 58</td>
<td>3.0</td>
</tr>
<tr>
<td>ELCT 71</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 73</td>
<td>4.0</td>
</tr>
</tbody>
</table>

COMPUTER TECHNOLOGY
CERTIFICATE
Career Preparation
Requirements
36 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELCT 31</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 32</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 33</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 34</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 35</td>
<td>3.0</td>
</tr>
<tr>
<td>ELCT 36</td>
<td>3.0</td>
</tr>
<tr>
<td>ELCT 51</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 71</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 73</td>
<td>4.0</td>
</tr>
</tbody>
</table>

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
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELCT 91</td>
<td>3.0</td>
</tr>
<tr>
<td>ELCT 92</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Option 2: Computer Systems
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELCT 95</td>
<td>3.0</td>
</tr>
<tr>
<td>ELCT 96</td>
<td>3.0</td>
</tr>
</tbody>
</table>

DIGITAL ELECTRONICS CERTIFICATE
Requirements
30 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELCT 31</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 32</td>
<td>4.0</td>
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<tr>
<td>ELCT 33</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 34</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 53</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 54</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 57</td>
<td>3.0</td>
</tr>
<tr>
<td>ELCT 58</td>
<td>3.0</td>
</tr>
<tr>
<td>ELCT 71</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 73</td>
<td>4.0</td>
</tr>
</tbody>
</table>

ELECTRONICS TECHNOLOGY
CERTIFICATE
Career Preparation
Requirements
44 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELCT 31</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 32</td>
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<tr>
<td>ELCT 33</td>
<td>4.0</td>
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<tr>
<td>ELCT 34</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 35</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 53</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 54</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 57</td>
<td>3.0</td>
</tr>
<tr>
<td>ELCT 58</td>
<td>3.0</td>
</tr>
<tr>
<td>ELCT 71</td>
<td>4.0</td>
</tr>
<tr>
<td>ELCT 73</td>
<td>4.0</td>
</tr>
</tbody>
</table>

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
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELCT 85</td>
<td>3.0</td>
</tr>
<tr>
<td>ELCT 86</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Option 2: Telecommunications
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELCT 97</td>
<td>3.0</td>
</tr>
<tr>
<td>ELCT 98</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Option 3: Consumer Electronics
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELCT 93</td>
<td>3.0</td>
</tr>
<tr>
<td>ELCT 94</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Option 4: Industrial Electronics
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELCT 87</td>
<td>3.0</td>
</tr>
<tr>
<td>ELCT 88</td>
<td>3.0</td>
</tr>
</tbody>
</table>
**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)
- Marine Radio Operator Permit (Element 1)
- 1st Class Radiotelegraph
- 2nd Class Radiotelegraph
- 3rd Class Radiotelegraph
- 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 eleven 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 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 38 (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.
To pursue a bachelor’s degree, complete the following courses prior to transfer if possible:

**California State Polytechnic University, Pomona**

Electronics and Computers Option: ELCT 10, 31, 32, 33, 34, 38, 48
Complete CSU General Education-Breadth Requirements

**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**

**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 1A, 1B; MATH 26A, 26B; PHYSICS 1A, 1B, 1C General education requirements to include ENGL 1A and 1B.

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:

BIOLOGY 1, CHEM 1A, 1B, 8A, 8B, ELCT 31, 32, MATH 26A, 26B, 26C, 27, PHYSICS 1A, 1B, 1C

Electrical Engineering: BIO 1 or 10, CHEM 1A, 1B, ELCT 31, 32, MATH 26A, 26B, 26C, 27, PHYSICS 1A, 1B, 1C

**Environmental Engineering:** BIOLOGY 1, CHEM 1A, 1B, 8A, 8B, ELCT 31, 32, MATH 26A, 26B, 26C, 27, PHYSICS 1A, 1B, 1C

**Mechanical Engineering:** BIO 1 or 10, CHEM 1A, 1B, CIDG 6A, ELCT 31, 32, MATH 26A, 26B, 26C, 27, PHYSICS 1A, 1B, 1C

**All Engineering majors:**

ENGL 1A, 1B

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 Polytechnic University, Pomona**

**All Engineering majors:**

CHEM 1A, 1B, MATH 26A, 26B, 26C, 27, PHYSICS 1A, 1B, 1C

CSU General Education-Breadth Requirements

**California State Polytechnic University, San Luis Obispo**

**All Engineering majors:**

CHEM 1A, 1B, MATH 26A, 26B, 26C, 27, PHYSICS 1A, 1B, 1C

CSU General Education-Breadth Requirements

**ENGLISH**

The study of English offers the student development of writing skills as well as an appreciation of literature. The discipline of reading and writing about the human experience is a vital foundation for all learning.

Since English composition courses are designed to help the student write the kind of papers commonly required in college courses, the student’s first course in composition should be taken during the first semester (15 units) of college work, and the second course during the second semester (15 to 30 units) For course descriptions, see Section IX of this catalog.

**Career Opportunities**

B.A. Level (Most careers require a bachelor’s degree.)

Copywriter
Creative Writer
Editor
Journalist
Library Reference Worker
Magazine Writer
Proofreader
Public Relations Worker
Researcher
Technical Writer
Faculty
Full Time
Tim Adell
Claudia Basha
Robert Begley
Fran Ferrance
Andrea Glebe
Patty Golder
Carol Golliher
Jane Skuster
Judy Solis
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 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 before transfer if possible:

California State University, San Bernardino
English major
ENGL 1B, 46A, 46B
CSU General Education-Breadth Requirements

University of California, Riverside
English major
One course from: ENGL 20, 26, 30A, 30B, 46A, 46B
Completion of IGETC recommended.
One course recommended from: ENGL 31, 40A, 40B

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

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: BIOLOGY 3, CHEM 10 or H10, MATH 20, MICRO 1
Three courses from following: ANTHRO 1, BIOLOGY 1, 2, CHEM 6, GEOG 1, PHYSICS 10 or 2A
Track B: BIOLOGY 1, 2, 3, CHEM 1A, 1B, 5, 8A, 8B, GEOG 1+1L, GEOL 1, PHYSICS 10 or 2A
CSU General Education-Breadth Requirements

University of California, Riverside
Environmental Science major
BIOLOGY 14, CHEM 1A, 1B, ENGL 1A+1B, MATH 4 & 5 or 16, CIS 1, POLSCI 1B or H1B
Natural Science option: Add BIOLOGY 1, 2, GEOG 1+1L or GEOG 1, MATH 26A, 26B, PHYSICS 2A, 2B or 1A, 1B, 1C, CHEM 8A, 8B, CHEM 5 or BIO 3
Soil Science option: Add BIOLOGY 1, 2, GEOG 1+1L or GEOG 1, MATH 26A, 26B, PHYSICS 2A, 2B or 1A, 1B, 1C, CHEM 8A, 8B
Environmental Toxicology option: Add BIO 1, 2, or 3, CHEM 5, MATH 26A, 26B, PHYSICS 2A, 2B, CHEM 8A, 8B
Social Science Option: Add BIOLOGY 10, GEOL 1 or GEOG 1 & 1L
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.

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.
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
  Photography 1A, 1B, 2, 3, 4, 5, 28, 29

- MUSIC

- 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 IGETC before transfer.

FIRE TECHNOLOGY

Fire protection is a highly specialized professional field requiring extensive knowledge and use of scientific principles. Successful application of the fundamental principles of fire protection, including suppression and extinguishment of fires, rescue, emergency medical services, prevention techniques and practices, preplanning for fire protection, and disaster control, requires technical knowledge and the ability to work within an organized system at the fire ground or other emergency scene. These actions require trained, professional people to accomplish the goals and objectives of today’s public and/or private information 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 require-
ments 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>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 30</td>
<td>Fire Protection Organization</td>
</tr>
<tr>
<td>FT 31</td>
<td>Fundamentals of Fire Service Operations</td>
</tr>
<tr>
<td>FT 32</td>
<td>Fire Prevention Technology</td>
</tr>
<tr>
<td>ET35</td>
<td>Fire Protection Equipment and Systems</td>
</tr>
<tr>
<td>FT 37</td>
<td>Fire Behavior and Combustion</td>
</tr>
<tr>
<td>FT 80</td>
<td>Hazardous Materials First Responder</td>
</tr>
<tr>
<td>FT 81</td>
<td>Emergency Medical Technician</td>
</tr>
<tr>
<td>OR</td>
<td>Emergency Medical Technician I (Ambulance)</td>
</tr>
<tr>
<td>FT 95</td>
<td>Basic Fire Academy</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>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 30</td>
<td>Fire Protection Organization</td>
</tr>
<tr>
<td>FT 31</td>
<td>Fundamentals of Fire Service Operations</td>
</tr>
<tr>
<td>FT 32</td>
<td>Fire Prevention Technology</td>
</tr>
<tr>
<td>FT 35</td>
<td>Fire Protection Equipment and Systems</td>
</tr>
<tr>
<td>FT 37</td>
<td>Fire Behavior and Combustion</td>
</tr>
<tr>
<td>FT 39</td>
<td>Fire Apparatus and Equipment</td>
</tr>
<tr>
<td>FT 40</td>
<td>Fire Company Organization and Management</td>
</tr>
<tr>
<td>FT 43</td>
<td>Fire Hydraulics</td>
</tr>
<tr>
<td>FT 70</td>
<td>Fire Instructor Training 1A</td>
</tr>
<tr>
<td>FT 71</td>
<td>Fire Instructor Training 1B</td>
</tr>
<tr>
<td>FT 72</td>
<td>Fire Command 1A</td>
</tr>
<tr>
<td>FT 73</td>
<td>Fire Command 1B</td>
</tr>
<tr>
<td>FT 76</td>
<td>Fire Management 1</td>
</tr>
<tr>
<td>FT 80</td>
<td>Hazardous Materials First Responder</td>
</tr>
<tr>
<td>FT 81</td>
<td>Emergency Medical Technician</td>
</tr>
<tr>
<td>AH 71</td>
<td>Emergency Medical Technician (Ambulance)</td>
</tr>
<tr>
<td>FT 95</td>
<td>Basic Fire Academy</td>
</tr>
<tr>
<td>CIS 1</td>
<td>Computer Literacy</td>
</tr>
</tbody>
</table>

OR

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 77</td>
<td>Investigation 1A</td>
</tr>
</tbody>
</table>

Group II Three of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 41</td>
<td>Fire Investigation</td>
</tr>
<tr>
<td>FT 45</td>
<td>Wildland Fire Control</td>
</tr>
<tr>
<td>FT 61</td>
<td>Rescue Practices</td>
</tr>
<tr>
<td>FT 74</td>
<td>Fire Prevention 1A</td>
</tr>
<tr>
<td>FT 75</td>
<td>Fire Prevention 1B</td>
</tr>
<tr>
<td>FT 77</td>
<td>Investigation 1A</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>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 30</td>
<td>Fire Protection Organization</td>
</tr>
<tr>
<td>FT 31</td>
<td>Fundamentals of Fire Service Operations</td>
</tr>
<tr>
<td>FT 32</td>
<td>Fire Prevention Technology</td>
</tr>
<tr>
<td>FT 35</td>
<td>Fire Protection Equipment and Systems</td>
</tr>
<tr>
<td>FT 37</td>
<td>Fire Behavior and Combustion</td>
</tr>
</tbody>
</table>

FT 41 Fire Investigation 3.0
OR

ET 77 and 79 Investigation 1A and 1B 4.0
FT 70 Fire Instructor Training 1A 2.0
ET 71 Fire Instructor Training 1B 2.0
FT 74, 75, 78 Fire Prevention 1A, 1B, 1C 6.0
FT 76 Fire Management 1 2.0

Associate Degree

To earn an Associate in Science degree with a major in Fire Technology complete 18 units from any of the certificate requirements above or from any Fire Technology courses and meet all Victor Valley College graduation requirements. FT 38 (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
FRENCH 1, 2, 3, 4
CSU General Education-Breadth Requirements

University of California, Riverside
French major
FRENCH 1, 2, 3, 4
Completion of IGETC recommended.

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

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Certificate Program
No certificates awarded.

Associate Degree
No associate degree offered with a major in Geography. Geography courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements.

Transfer
To pursue a bachelor’s degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Geography major
Track A & B GEOGRAPHY 1 + 1L, 2
CSU General Education-Breadth Requirements
Track C (Social Science Credential Option)
ANTHRO 2, 3, ECON 1B, 1A, GEOG 1, 1L, 2
HIST 3A, 3B, 17A, 17B, POL SCI 1B, PSYCH 1A, SOC 1
RELIGIOUS STUDIES 10

University of California, Riverside
Geography major
GEOL 1, GEOG 1, 1L, 2, ENGL 1A, 1B
Biogeography option: Add BIOLOGY 1, 2, 3, CHEM 1A, 1B, GEOG 2, MATH 26A, 26B, PHYSICS 1A, 1B, 1C
Geomorphology option: Add CHEM 1A, 1B, GEOL 2, 10, MATH 26A, 26B, PHYSICS 1A, 1B, 1C
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.
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

Faculty
Full Time
Scott Bryan

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: BIOLOGY 1, CHEM 10 or 1A, GEOL 1, 2, MATH 26A, 26B, 26C, PHYSICS 1A, 1B, 1C, H1D
BS: CHEM 1A, 1B, GEOL 1, 2, MATH 26A, 26B, PHYSICS 1A, 1B, 1C, H1D, BIO 10 or 1
CSU General Education-Breadth Requirements

University of California, Riverside
Geology major
BIOLOGY 1, CHEM 1A, 1B, GEOL 1, 2, 10, MATH 26A, 26B, PHYSICS 1A, 1B, 1C
General Geology option: Add GEOG 1, 1L
Paleontology option: Add BIOLOGY 2 or 10, 3, GEOG 1, 1L
See counselor for general education requirements for College of Natural and Agricultural Sciences.

University of California, Riverside
Geophysics major
CHEM 1A, 1B, GEOG 1, 1L, GEOL 1, 2, 10, MATH 26A, 26B, 27, PHYSICS 1A, 1B, 1C (H1D recommended)
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.

GUIDANCE

Guidance classes offered at Victor Valley College are designed to assist students in becoming goal directed and successful students.

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 Teacher
Researcher
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): ANTHRO 2, 3, ECON 1A, 1B, GEOG 1 + 1L, GEOG 2, HIST 3A, 3B, 17A, 17B, POL SCI 1B or H 1B, PSYCH 1A, SOC 1
CSU General Education Requirements
Track B: HIST 3A, 3B, 17A, 17B, ANTHRO 3
CSU General Education-Breadth Requirements

University of California, Riverside
History major
HIST 3A, 3B, 7, 16, 17A, 17B
Cooperative major with Administrative Studies: Add BUS ADM 1A or 2A, 20, CIS 1, MATH 20.
Completion of IGETC recommended.

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

LAW

There is no single “prelaw” major. Research has revealed that success in law school is based more on one’s ability to grasp and solve difficult intellectual problems and to employ disciplined work habits. In choosing a major, one should choose a course of study that will give broad cultural background and include intensive research. Most law students major in Business Administration, Economics, English, Liberal Studies, History, Philosophy, Political Science, or Sociology, although law schools accept any major.

Most American Bar Association (ABA) accredited law schools require a bachelor’s degree and certain scores on the Law School Admission Test (LSAT) for entrance into an intensive three-year program. Students who complete law school earn the Juris Doctor (J.D.) degree and can practice law in the state of California upon passage of the California bar exam. Some law schools require only an associate degree for admission and often require completion of a four-year program.

The following sampling of ABA accredited law schools in California require sufficient scores on the LSAT and a bachelor’s degree:
Pepperdine University
Stanford University
University of California Berkeley
Davis
Los Angeles
University of LaVerne
University of Southern California
LIBERAL ARTS

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Associate Degree
To earn an Associate in Arts degree with a major in Liberal Arts, complete a minimum of 18 units from the three areas of Science/Math, Humanities, and Social Science. For course descriptions, see Section IX of this catalog. A minimum of 3 units must be taken from each of the following areas:

- **SCIENCE/MATHEMATICS - 3 Units Minimum**
  - Allied Health 12*
  - Anatomy 1, 2
  - Astronomy 1
  - Biology 1, 2, 3, 4, 8, 10, 14, 16, 28, 29
  - Chemistry 1A, 1B, 5, 6, 8A, 8B, 10, 10H, 14, 7
  - Geography 1 (cannot fulfill more than one area requirement)
  - Geography 1L
  - Geology 1, 2, 3, 9, 10, 12, 28
  - Mathematics 3, 4, 5, H5, 16, 20, 26A, 26B, 26C, 27, 28, 29, 32, 50
  - Microbiology 1
  - Oceanography 10
  - Physical Science 1, 14, 15
  - Physics 1A-B-C-H1D, 2A, 2B, 10
  - Physiology 1, 2
  - Physical Education 12*

- **HUMANITIES - 3 Units Minimum**
  - English 1B, 9, 20, 25, 26, 27, 30A, 30B, 31, 35, 40A, 40B, 46A, 46B, 47
  - French 1, 2, 3, 4, 25, 28
  - Philosophy 6, 7, 8, 9, 28, 29
  - Photography 1A, 1B, 2, 3, 4, 5, 28, 29
  - Physical Education (Dance) 20, 21A, 21B, 21M, 21N, 21Q, 21T
  - Religious Studies 1, 5A, 5B, 10, 15, 28, 29
  - Spanish 1, 2, 3, 4, 25, 28

- **SOCIAL SCIENCE - Minimum 3 Units**
  - Allied Health 25
  - Anthropology 1, 2, 3, 5, 28, 29
  - Economics 1A, 1B, 18, 28, 29
  - Geography 1 (cannot fulfill more than one area requirement), 2, Guidance 5*
  - Political Science 1A, 1B, H1B, 2, 3, 20, 28
  - Psychology 1A, 1B, 3, 5*, 8, 10, 11, 12, 13, 14, 16, 21, 25, 28, 29, 30, 33, 39
  - Sociology 1, 2, 3, 7, 28

*Cross-listed courses (the same course listed under more than one department) may be counted only once. Allied Health 12, and Physical Education 12 are the same course. Guidance 5 and Psychology 5 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**
  - Electronics 57, 58, 59, 60
  - Mathematics 3, 4, 5, H5, 16, 20, 26A, 26B, 26C, 27, 28, 29, 31, 32

- **LIFE SCIENCES**
  - Allied Health 12*
  - Anatomy 1, 2
  - Biology 1, 2, 3, 4, 8, 10, 14, 16, 28, 29
  - Microbiology 1
  - Physical Education 12*
  - Physiology 1, 2

- **PHYSICAL SCIENCES**
  - Astronomy 1
  - Chemistry 1A, 1B, 5, 6, 7, 8A, 8B, 10, H10, 14, 28, 29, 55
  - Geography 1, 1L
  - Geology 1, 2, 3, 9, 10, 12, 28
  - Oceanography 10
  - Physical Sciences 1, 14, 15, 28, 29
  - Physics 1A, 1B, 1C, H1D, 2A, 2B, 10, 28, 29
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.

MATHMATICS

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
Mary Lynn Doan
Elizabeth Doolittle
David Longshore
Arda Melkonian
Cherie Reardon
Jeff Redona
Louis Shahin
Paul Vegna

Degrees and Certificates Awarded

Associate inArts, LiberalArts
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 38 (Cooperative Education) may be used for Elective credit, but may not be used to fulfill major requirements.

Transfer

To pursue a bachelor’s degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Mathematics major
BA: MATH 26A, 26B, 26C, 27, 31 CIS 32A
BS: Add PHYSICS 1A, 1B
CSU General Education-Breadth Requirements

University of California, Riverside
Mathematics major
BA or BS: MATH 26A, 26B, 26C, 27, 31, PHYSICS 1A, 1B, 1C or 2A, 2B, BIOLOGY 3 or 10, ENGL 1A, 1B
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.

MEDIA ARTS*

Degrees and Certificates Awarded

Digital Animation Certificate
Game Design Certificate
Media Arts Certificate

Certificate Programs

DIGITAL ANIMATION CERTIFICATE

The program in digital animation is designed to afford students the opportunity to develop the necessary foundation skills, master the tools and processes, and nurture their artistry and creative vision. Students will work alongside experienced professionals and undergo standard production experiences in the classroom that reflect industry needs and current industry trends.

The program is structured to provide students with a comprehensive educational approach to the field of digital animation and will teach students to become flexible professionals who can adapt to a variety of design projects and roles in a constantly changing field. The program curriculum is structured so as to afford students a balance between aesthetic and practical design application, where the development of storytelling is given equal importance to the acquisition of technical skills. Upon completion of this curriculum, the student will be qualified for employment as an entry level digital character animator, digital effects animator, or technical director.

Requirements

18 units minimum
All of the following must be completed:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEART 40</td>
<td>Principles of Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>MEART 41</td>
<td>Animation II</td>
<td>3.0</td>
</tr>
<tr>
<td>MEART 42</td>
<td>Digital Character Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>MEART 43</td>
<td>Animation Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>MEART 44</td>
<td>Animation Technology Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>MEART 45</td>
<td>Render Management</td>
<td>3.0</td>
</tr>
</tbody>
</table>

2000-2001 Victor Valley College Catalog
GAME DESIGN CERTIFICATE

The certificate program in game design is designed to afford students the opportunity to develop the necessary foundation skills, master the tools and processes, and work alongside experienced professionals while they undergo studio production experiences in the classroom that reflect industry needs and prepare them to enter a game design career.

The program is structured to provide students with the skills necessary to design and create single and multi-player computer games for networks, personal computers, and dedicated gaming consoles. Topics include game programming, a study of real-world physics, real-time modeling and textures, and artificial intelligence techniques for modeling opponent behavior. Upon completion of this curriculum, the student will be qualified for employment as an entry-level game designer.

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

<table>
<thead>
<tr>
<th>Units</th>
<th>MEART 30 Fundamentals of Game Design</th>
<th>3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MEART 31 Game Interface Design</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>MEART 32 Game Engine Programming</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>MEART 33 Multi-User Game Design</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>MEART 34 Artificial Intelligence</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>MEART 35 Game Production and Workflow</td>
<td>3.0</td>
</tr>
</tbody>
</table>

MEDIA ARTS CERTIFICATE

The program is structured to provide students with a comprehensive educational approach to the field of media arts, developing the necessary foundation skills for advanced study in digital animation, game design, or to transfer to a four-year institution. The program curriculum is structured so as to afford students a balance between aesthetic and practical design application. Upon completion of this curriculum, the student will be qualified for employment as an entry-level intern in media arts.

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

<table>
<thead>
<tr>
<th>Units</th>
<th>ART 25A Drawing and Composition</th>
<th>3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ART 33A Computer Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>CIS 1 Computer Literacy</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>CIS 35 Multimedia Presentations</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>CIS 36 Introduction to the Web</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Group II - Any 9 units of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>ART 12A Design</th>
<th>3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ART 18A Introduction to Life Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>CIDG 26A 3D Studio Max I</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>CIDG 26B 3D Studio Max II</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>CIDG 26C 3D Studio Max III</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>CIS 32A C++ Module A</td>
<td>4.0</td>
</tr>
</tbody>
</table>

CIS 33 Programming in Visual Basic 4.0
CIS 37 Introduction to HTML 2.0
CIS 42 Clientside Programming A 4.0
TA 10 Principles of Design for Theatre 3.0
MEART 20 Writing for Media Arts 3.0
MEART 22 Portfolio Development 3.0
MEART 24 Digital Video Production 3.0
MEART 26 Digital Cinematography 3.0
MEART 30 Fundamentals of Game Design 3.0

*Pending approval, Chancellor’s Office, California Community Colleges

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:

ANATOMY 1 or 2, BIOLOGY 12, CHEM 10 or PHYSICS 10, PHYSIO 1 or 2, PSYCH 1A

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:

ANATOMY 1 or 2, BIOLOGY 1, CHEM 1A, 1B, ENGL 1A, 1B or SPEECH 9, PHYSICS 2A, 2B, PSYCH 1A

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

2000-2001 Victor Valley College Catalog
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 1A, 1B, ENGL 1A, 1B, PSYCH 1A, SOC 1, SPEECH 9
- Two courses from: ANATOMY 1 OR 2, BIOLOGY 1, MICRO 1, PHYSIO 1 or 2
- Other courses recommended to complete 60 required units: CHEM 6 in addition to other chemistry requirements, ANATOMY 1 in addition to other biology requirements, SPAN 1, 2, 3, 4, ENGL 46A, 46B, PHILOS 6, 7, 8, 9, ART 1A, 1B, 5, 6, MUSIC 10.

A handout with all transfer requirements for a B.S. 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, rate sufficiently high on the Dental Admission Test (DAT), and meet the following minimum requirements:

- ANATOMY 1 or 2, CHEM 1A, 1B, 6+7 or 8A+8B, ENGL 1A, MATH 4, 5, 26A, PHYSICS 2A, 2B, SPEECH 9
- Choose two courses from these biology courses: BIOLOGY 1, 2, 3, PHYSIO 1 or 2, MICRO 1

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: BIOLOGY 1, 2, 3, CHEM 1A, 1B, 8A, 8B, ENGL 1A, 1B, MATH 4, 5, 26A, 26B, PHYSICS 2A, 2B. In addition, courses from the following are highly recommended: CHEM 6, 7, CIS 1, MATH 20, SPAN 1, 2, 3, 4. 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 accredited by the Liaison Committee on Medical Education (LCME) of the American Medical Association (AMA):

- Loma Linda University
- Stanford University
- University of California
  - Davis
  - Irvine
  - Los Angeles
  - San Diego
  - San Francisco
- University of Southern California

Entrance requirements may vary slightly from college to college. For example, USC requires a minimum of 120 semester units of academic course work. Students pursuing a medical degree should send off for entrance requirements and information from every school to which they plan to apply.

Most students who are admitted into medical school have a bachelor’s degree. Since requirements for medical school places emphasis on biology and chemistry, most students choose to pursue a bachelor’s degree in biology or chemistry.

Occupational Therapy

Occupational Therapists look at the psychological and social concerns, as well as physical factors, to assist physically disabled people relearn and adapt basic motor skills. Occupational Therapists use everyday (occupational) activities as a means of helping those people achieve independence, focusing on critical daily tasks ranging from dressing to employment tasks.
Only three California colleges offer programs accredited by the American Occupational Therapy Association (AOTA). The following award a bachelor’s degree in Occupational Therapy:

- Loma Linda University
- San Jose State University
- University of Southern California

Because the entrance requirements, prerequisites, and program components differ from college to college, students should send off for specific information about the programs from each college to which they plan to apply.

A handout with all transfer requirements for a B.S. degree in Occupational Therapy from Loma Linda University is available in the counseling department.

**Occupational Therapy Assistant**

Occupational therapy assistants (COTA) work under the guidance of occupational therapists to carry out treatment programs for many different kinds of patients. The COTA enjoys a job that uses creative, personal, and technical skills; works with people of all ages with many kinds of health problems; uses specialized job skills developed in classroom and clinical experiences; benefits from a career with excellent employment opportunities; and shares a respected position as an important member of the health care team.

The following California colleges offer associate degrees in Occupational Therapy Assistant:

- Loma Linda University

A handout with all transfer requirements for an associate degree from Loma Linda University is available in the VVC Counseling Department. No appointment is necessary to obtain a copy of these requirements.

**Optometry**

Optometry is a health care profession that focuses on the prevention and remediation of disorders of the vision system. Optometrists examine, diagnose and treat eye diseases, determine appropriate prescriptions for glasses and contacts, and handle the overall eye care of a patient.

The following California schools offer programs leading to a Doctor of Optometry (O.D.) degree:

- Southern California College of Optometry
- University of California, Berkeley

Entrance into the Doctor of Optometry degree program requires graduation from an accredited secondary school, sufficient scores on the Optometry Admissions Test (OAT), completion of a minimum of 90 units of which 20 must be from a four-year university, and the entrance requirements. The following must be completed with a grade of “C” or better prior to transfer:

**Southern California College of Optometry, Fullerton**

Doctor of Optometry program

BIOL 1, 2, 3, CHEM 1A, 1B, 6 or 8A, ENGL 1A, 1B, MATH 4, 5, 20, 26A, MICRO 1, PHYSICS 2A, 2B, PSYCH 1A, 10

**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 1A, 1B, 8A, 8B, ENGL 1A, 1B, MICRO 1, PHYSICS 2A, 2B

Choose two courses from the following: ANATOMY 1 or 2, BIOLOGY 1, 2, 3, 4, PHYSIO 1 or 2

**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):**

- BIOLOGY 1, 2, CHEM 1A, 1B, 8A, 8B, ENGL 1A, 1B, MATH 26A, PHYSICS 1A or 2A, PSYCH 1A
- Choose one course from: ANTHRO 2, GEOG 2, HIST 8A, 8B, 18, REL STS 10
- Choose one course from: HIST 3A, 3B, PHILOS 6, 8, 20A, 20B, REL STS 1, 5A, 5B
- Choose one course from: ART 1A, 1B, 5, MUSIC 2A, 10, PE 20, PHOTO 1A, TA1, TA 6

**University of Southern California (Los Angeles):**

- BIOLOGY 1, 2, CHEM 1A, 1B, 8A, 8B, ENGL 1A, 1B, MATH 26A, SPEECH 9, ECON 1A or 1B, PSYCH 1A, 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):**

- ENGLISH 1A; either ENGLISH 1B, 2 or 9; MATH 5 or higher (calculus); MATH 20; ANATOMY 1; PHYSIO 1; MICRO 1; CHEM 1A + 1B; PSYCH 1A, SOC 1; and 9 units of Humanities and/ or SOCIAL SCIENCES, chosen from ANTHRO, SOC, PSYCH, TA, MUSIC, 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: ANATOMY 1 or 2, BIOLOGY 1, 2, 3, CHEM 1A, 1B, 8A, 8B, MATH 20, PHYSICS 2A, 2B, PHYSIO 1 or 2, PSYCH 1A, 10

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 become national certified 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:

- ANATOMY 1 or 2, CHEM 10, ENGL 1A, 1B, MATH 5, PHYSIO 1 or 2, PSYCH 1A, 12 units from humanities
  - Choose one course from: BIOLOGY 1, 2, 3, 10, MICRO 1

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, diagnosis, and treatment of diseases and disorders which affect the human foot and contiguous structures. The College of Podiatric Medicine in San Francisco is the only accredited program in California which offers this four-year program in Podiatry or Podiatric Medicine (D.P.M.).

Students must complete a minimum of 60 units before transfer, take the College of Podiatry Admission Test (CPAT), and meet the following transfer requirements:

- California College of Podiatric Medicine, San Francisco
- Doctor of Podiatric Medicine program
- BIOLOGY 1, 2, CHEM 1A, 1B, ENGL 1A, 1B, PHYSICS 2A
- Other courses selected from: ANATOMY 1 or 2, HIST 17A, 17B, POL SCI 1B, PSYCH 1A, SOC 1

**Radiologic Technology**

The radiologic technologist (x-ray technician) is responsible for the accurate demonstration of body structures on a radiograph or other receptor. The technologist determines proper exposure factors, manipulates medical imaging equipment, evaluates the radiographic quality, and provides for patient protection and comfort.
Most radiologic technology programs are two-year programs with students earning an associate degree upon completion of the program.

Radiologic technologists may choose to train further in the areas of medical sonography, nuclear medicine technology, radiation therapy technology, and special imaging technology.

Entrance requirements vary slightly from college to college. Students should send off for requirements for each college to which they plan to apply.

Students need to complete the following courses before transfer into Chaffey College’s radiologic technology program:

**Chaffey College Radiologic Therapy**

AH 39, ANATOMY 1 or 2, CHEM 10 or PHYSICS 10, ENGL 1A, MATH 167 or show competency of basic math or MATH 167, 50, POL SCI 1B, SPEECH 9, 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**

ANATOMY 1 or 2, CHEM 1A, 1B, ENGL 1A, 1B, MATH 5, PHYSIO 1 or 2, PHYSICS 2A, 2B

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:

- BIOLOGY 1, 2, 3, CHEM 1A, 1B, 8A, 8B, ENGL 1A, 1B, MATH 4, 20, PHYSICS 2A, 2B
- 12 units from anthropology, art, history, music, philosophy, psychology, sociology to fulfill humanities and social science general education requirements. Additional upper division required sciences must be taken at a four-year university.

As with many specialized medical programs, the majority of those accepted have already earned a bachelor’s degree before admission. Students pursuing veterinary medicine usually choose a major in one of the fields of animal science, biological sciences, or chemistry.

**MEDICAL ASSISTANT**

The Medical Assistant is a professional, multi-skilled person dedicated to assisting in patient care management. The practitioner performs administrative and clinical duties and may manage emergency situations, facilities, and/or personnel. Competence in the field also requires that a medical assistant display professionalism, communicate effectively, and provide instructions to patients.

The medical assistant program is a one-year program that is designed to prepare students to work effectively in a physician’s office, medical records or business office of a clinic or a hospital. Upon completion of the required courses, the student will demonstrate proficiency in both front and back office procedures. Successful completion of the program leads to a Certificate of Achievement. For course descriptions, see Section IX of this catalog. See Medical Office under Business Education Technologies for a program with more emphasis in front office.
**Career Opportunities**
- Medical Assistant
- Patient Account Representative
- Receptionist
- Medical Secretary
- Medical Records Technician
- Nursing Assistant

**Faculty**
- Full Time
- John Doyle

**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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<td>AH 80</td>
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<td>AH 85</td>
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<td>AH 86</td>
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<td>AH 95</td>
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<td>OR</td>
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<td>BET 4</td>
<td>Beginning Word Processing/Typing-Word for Windows A/ B/ C</td>
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</tr>
<tr>
<td>Psych 10</td>
<td>Developmental Psychology</td>
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</tr>
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</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.

**Associate Degree**

To earn an Associate in Science degree with a major in Medical Assistant, complete the certificate requirements above, three additional units in Allied Health, and meet all Victor Valley College graduation requirements.

**Transfer**

Not a transfer major. Some Allied Health courses transfer as Electives or fulfill subject credit requirements.

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**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 study and development of the creative side of personhood; in that sense it is one of the most wholly “human” of the humanities. 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 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
- K.C. Manji
- 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. MUSIC 38 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

**Transfer**

Generally, all music majors should follow a similar program of study to assure acceptance in various music programs, particularly the more competitive ones. In addition to the core requirements, music majors need to be aware of the auditions, applied lessons, juries, proficiency exams, and concert and recital performances and attendance which are an integral part of a music program. The Music Department offers workshops for music majors. All interested students are encouraged to attend.
Below are transfer requirements recommended for Music majors:

**MUSIC** 1, 2A, 2B, 3A, 3B, 4A, 4B, 4C, 4D, 4E, 15A, 15B, 16A, 16B, 18, 41
Choose at least one ensemble each semester from the following:
**MUSIC** 21, 22, 31, 34, 36, 55, 63
Additional courses to take as available and as recommended:
**MUSIC** 1G, 1I, 12, 13, 22, 42, 60A, 60B
Complete all lower division general education requirements for the specific college, using IGETC or CSU General Education Breadth Requirements when appropriate.

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
**MUSIC** 2A, 2B, 4A, 4B, 16A, 41
CSU General Education-Breadth Requirements

**University of California, Riverside**
**MUSIC** major
**MUSIC** 2A, 2B, 3A, 3B,
Completion of IGETC recommended.

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**NURSING**

Nursing is a dynamic, caring process derived from the changing bio-psychosocial-cultural and environmental needs of man.

The goal of nursing includes assisting the individual, sick or well, in the performance of those activities which contribute to attaining an optimum level of wellness. The role of the nurse is to act as manager, educator, and professional provider of care in a rapidly changing health care environment.

The nursing program prepares its graduates to utilize the nursing process in giving health care to individuals. The Associate Degree Nursing graduate receives the Associate of Science degree and is academically prepared to take the Licensing Examination for Registered Nursing (NCLEX).

Separate application must be made to the nursing program. Contact the Department for current application timelines. Several admission and progression options are available, including generic, advanced placement, non-graduate (nursing licensure) and 30 unit option. Specific information is available in the application, the handbook and from the program director. For course descriptions, see Section IX of this catalog. Note: Many of these courses have substantial prerequisites. (See course descriptions)

**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
- Preoperative Nursing
- Geriatric Nursing
- Critical Care Nursing
- Rehabilitation Nursing
- Neurosurgical Nursing
- Oncology Nursing

**Faculty**
**Full Time**
Diane Cline
Starlie Cuna
Prudence Ferraro
Diego Garcia
Nancy Green
Maggie Kel
Fanny Pascual
Sally Thibeault

**Degrees and Certificates Awarded**
- Associate in Science, Nursing
- Associate Degree Nursing Certificate
- Nursing Licensure Certificate

**Certificate Programs**

**ASSOCIATE DEGREE NURSING CERTIFICATE**

**Requirements**
73 units minimum

**Group A:** All of the following must be completed:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<td>Pharmacology and Nursing Management</td>
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<td>NURSING 21</td>
<td>Nursing Process 1</td>
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<td>NURSING 22</td>
<td>Nursing Process 2</td>
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<td>ANATOMY 1</td>
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<td>ANATOMY 2</td>
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<td>MICRO 1</td>
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<td>ENGL 1A</td>
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<td>PSYCH 1A</td>
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<td>*PSYCH 10</td>
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<td>SOC 1</td>
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**Group B:** One of the following must be completed:

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<td>SPEECH 7</td>
<td>Family Communication</td>
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<tr>
<td>SPEECH 8</td>
<td>Group Discussion</td>
<td>3.0</td>
</tr>
<tr>
<td>SPEECH 9</td>
<td>Public Speaking</td>
<td>3.0</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>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANATOMY 1 or 2</td>
<td>Human Anatomy</td>
<td>4.0-5.0</td>
</tr>
<tr>
<td>PHYSIO 1 or 2</td>
<td>Human Physiology</td>
<td>4.0-5.0</td>
</tr>
<tr>
<td>MICRO 1</td>
<td>General Microbiology</td>
<td>5.0</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 1A</td>
<td>General Psychology</td>
<td>3.3</td>
</tr>
<tr>
<td>PSYCH 10</td>
<td>Developmental Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SPEECH 6, 7, 8, or 9</td>
<td>Communication Family Communication, Group Discussion or Public Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 1A</td>
<td>English Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>NURSING 20</td>
<td>Pharmacology and Nursing Management</td>
<td>2.0</td>
</tr>
<tr>
<td>NURSING 21</td>
<td>Nursing Process 1</td>
<td>10.0</td>
</tr>
<tr>
<td>NURSING 22</td>
<td>Nursing Process 2</td>
<td>9.0</td>
</tr>
<tr>
<td>NURSING 23</td>
<td>Nursing Process 3</td>
<td>9.0</td>
</tr>
<tr>
<td>NURSING 24</td>
<td>Nursing Process 4</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Each class must be completed with a grade of “C” or better.

The Associate Degree Nursing Faculty accepts and operates within the framework of the philosophy and mission of Victor Valley College.

Nursing education provides upward and lateral mobility for career options. Associate Degree Nursing education in the community college prepares its graduates to utilize the nursing process in giving health care to individuals. Courses in general education and nursing increase the depth and broaden the scope of knowledge required to assure quality health care delivery.

The Associate Degree in Nursing graduate receives the Associate of Science Degree and is academically prepared to take the California State Licensing examination (NCLEX).

In order to be admitted to the nursing program, separate application must be made in addition to application to the college. Specific prerequisites and requirements are listed in the application. The 30 unit option is available to California Licensed Vocational Nurses. Please see the Program Director for this option. The nursing program varies from Victor Valley College policy in that all clinical experiences in nursing must be parsed with a satisfactory evaluation, and students may repeat a nursing course without competing for class placement. Only one nursing course may be repeated throughout the nursing program.

**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.

**Transfer**

Nursing programs on the bachelor’s degree level are highly competitive. Acceptance into B.S. in Nursing programs is usually based on completion of all prerequisites and entrance requirements, GPA, and letters of recommendation. To pursue a B.S. degree in Nursing, complete the following requirements prior to transfer:

California State University, San Bernardino
Nursing three-year program

ANATOMY 1 or 2, CHEM 6, 7, 10, ENGL 1A, MATH 5, MICRO 1, PHYSIO 1 or 2, PSYCH 1A, 10, SPEECH 8 or 9

CSU General Education Breath Requirements
3.0 GPA minimum
“C” or better on all course work

NURSING ASSISTANT

See Allied Health for certificate information.

ORNAMENTAL HORTICULTURE

Among the fastest growing industries in America, horticulture provides a dynamic future for the career-oriented individual. The industry’s strong private ownership base is a magnet for independent, motivated men and women.

The agriculture curriculum is designed to meet the demand for trained personnel in a broad range of horticultural agencies and private organizations. Students can enter the program at the level most suited to their needs. Individual programs may be arranged to prepare students for a career of their choice. For course descriptions, see Section IX of this catalog.
Career Opportunities
Floral Design
Greenhouse Production
Interior Landscaping
Irrigation Design
Landscape Contracting
Landscape Design
Landscape Maintenance
Nursery Management
Retail Garden Center Sales
Wholesale Nursery Production

Degrees and Certificates Awarded
Associate in Science, Ornamental Horticulture
Floral Design Certificate
Landscape Installation Specialist/Nursery Technician Certificate
Landscape Irrigation Certificate
Landscape and Nursery Management Certificate

Certificate Programs

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

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

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 15</td>
<td>Greenhouse Production and Management</td>
</tr>
<tr>
<td>OH 31</td>
<td>Fundamentals of Horticulture</td>
</tr>
<tr>
<td>OH 34</td>
<td>Basic Floral Design I</td>
</tr>
<tr>
<td>OH 37</td>
<td>Floral Design II</td>
</tr>
<tr>
<td>OH 32</td>
<td>Plant Propagation</td>
</tr>
</tbody>
</table>

LANDSCAPE INSTALLATION SPECIALIST/NURSERY TECHNICIAN CERTIFICATE
The Landscape Installation and Maintenance Technician Certificate prepares the student to assist in the installation of landscapes and to maintain them, or to begin working in a wholesale or retail nursery.

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

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 15</td>
<td>Greenhouse and Nursery Management</td>
</tr>
<tr>
<td>OH 17</td>
<td>Landscape Construction</td>
</tr>
<tr>
<td>OH 19</td>
<td>Pest and Disease Control</td>
</tr>
<tr>
<td>OH 31</td>
<td>Fundamentals of Horticulture</td>
</tr>
<tr>
<td>OH 32</td>
<td>Plant Propagation</td>
</tr>
<tr>
<td>OH 35</td>
<td>Landscape Irrigation</td>
</tr>
<tr>
<td>OH 39</td>
<td>Landscape Design</td>
</tr>
<tr>
<td>OH 40</td>
<td>Plant Identification</td>
</tr>
<tr>
<td>BAD 42</td>
<td>Business Math</td>
</tr>
<tr>
<td>CIS 1</td>
<td>Computer Literacy</td>
</tr>
<tr>
<td>SPEECH 6</td>
<td>Human Communication</td>
</tr>
</tbody>
</table>

LANDSCAPE IRIGATION CERTIFICATE
The Landscape Irrigation Certificate prepares the student to design landscape irrigation systems.

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

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 17</td>
<td>Landscape Construction</td>
</tr>
<tr>
<td>OH 31</td>
<td>Fundamentals of Horticulture</td>
</tr>
<tr>
<td>OH 35</td>
<td>Landscape Irrigation</td>
</tr>
<tr>
<td>OH 39</td>
<td>Landscape Design</td>
</tr>
<tr>
<td>OH 40</td>
<td>Plant Identification</td>
</tr>
</tbody>
</table>

LANDSCAPE AND NURSERY MANAGEMENT CERTIFICATE
The Landscape and Nursery Management Certificate prepares the student with the basics of establishing and/or managing a landscape business and a wholesale or retail nursery.

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

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 15</td>
<td>Greenhouse and Nursery Management</td>
</tr>
<tr>
<td>OH 17</td>
<td>Landscape Construction</td>
</tr>
<tr>
<td>OH 19</td>
<td>Pest and Disease Control</td>
</tr>
<tr>
<td>OH 31</td>
<td>Fundamentals of Horticulture</td>
</tr>
<tr>
<td>OH 32</td>
<td>Plant Propagation</td>
</tr>
<tr>
<td>OH 35</td>
<td>Landscape Irrigation</td>
</tr>
<tr>
<td>OH 39</td>
<td>Landscape Design</td>
</tr>
<tr>
<td>OH 40</td>
<td>Plant Identification</td>
</tr>
<tr>
<td>OH 43</td>
<td>Landscape and Nursery Management</td>
</tr>
<tr>
<td>BAD 42</td>
<td>Business Math</td>
</tr>
<tr>
<td>CIS 1</td>
<td>Computer Literacy</td>
</tr>
<tr>
<td>SPEECH 6</td>
<td>Human Communication</td>
</tr>
</tbody>
</table>

Associate Degree
To earn an Associate in Science degree with a major in Ornamental Horticulture complete 18 units from any of the certificate requirements above or from any Ornamental Horticulture courses and meet all Victor Valley College graduation requirements. OH 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 Polytechnic University, Pomona
Horticulture major
ENGL 1A, 1B, SPEECH 9, MATH 5, CHEM 1A, 1B, BIO 4, 10, PSYCH 1A, POL SCI 1B, HIST 17B, OH 31, 32, 40
For further information about this program, including further course requirements for transfer as a junior, contact Mary Ann Salyards or Ruth Mayoral at (760) 245-4271, extension 238.

Other CSU campuses that offer Ornamental Horticulture majors or concentrations include Chico, Fresno, and San Luis Obispo.

University of California, Riverside
Botany and Plant Sciences major
BIOLOGY 1, 2, 3, CHEM 1A, 1B, 8A, 8B, MATH 26A, 26B, PHYSICS 1A, 1B, 1C, or PHYSICS 2A, 2B, ENGL 1A+1B
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.

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, also called a legal assistant, works under the supervision of an attorney and performs many tasks normally handled by an attorney, such as preparing forms, memoranda writing, interviewing clients, researching legal matters, managing the law office, and a variety of other tasks. There are also self-employed paralegals who work for attorneys on request.

A paralegal is not an attorney and, therefore, cannot give legal advice or represent another person in court, except under very limited circumstances provided by law.

The Paralegal Certificate program is designed for students pursuing careers as paralegals. It is strongly recommended that students complete English 1A and Political Science 1B before they begin taking paralegal courses so that students 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) Political Science 30, 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 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 within the paralegal program, at least 15 of which must be 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>Group I</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLSCI 30</td>
<td>Introduction to Paralegalism</td>
</tr>
<tr>
<td>POLSCI 31</td>
<td>Fundamentals of Litigation for Paralegals</td>
</tr>
<tr>
<td>POLSCI 32</td>
<td>Legal Research and Writing for Paralegals</td>
</tr>
<tr>
<td>POLSCI 33</td>
<td>Legal Ethics for Paralegals</td>
</tr>
<tr>
<td>POLSCI 34</td>
<td>Family Law For Paralegals</td>
</tr>
<tr>
<td>POLSCI 35</td>
<td>Tort Law for Paralegals</td>
</tr>
<tr>
<td>AJ 13</td>
<td>Criminal Law</td>
</tr>
<tr>
<td>BA D17</td>
<td>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>Group II</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJ 12</td>
<td>Criminal Procedures</td>
</tr>
<tr>
<td>AJ 14</td>
<td>Legal Aspects of Evidence</td>
</tr>
<tr>
<td>BAD 1A</td>
<td>Elementary Accounting</td>
</tr>
<tr>
<td>OR 2A</td>
<td>Principles of Accounting</td>
</tr>
<tr>
<td>BA D8</td>
<td>Introduction to Public Administration</td>
</tr>
<tr>
<td>BA D72</td>
<td>Internal Revenue Service Procedures and Taxpayer Bill of Rights</td>
</tr>
<tr>
<td>BUS RE 32</td>
<td>Legal Aspects of Real Estate I</td>
</tr>
<tr>
<td>BET 3A, B, C</td>
<td>Beginning Word Processing/Typing Word Perfect for Windows</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>BET 4A, B, C</td>
<td>Beginning Word Processing/Typing Word for Windows</td>
</tr>
<tr>
<td>ENGL 2</td>
<td>Critical Thinking and Composition</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>PHILOS 9</td>
<td>Introduction to Logic</td>
</tr>
<tr>
<td>SPEECH 9</td>
<td>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:
AJ 11, 13, POLSCI 30, 32, MATH 5 or 32
PARAMEDIC

The EMT 1A is the beginning level for emergency response personnel. It is the minimum preparation required to staff an ambulance.

A higher level is the paramedic, who is able to diagnose and treat medical emergencies and accident victims in the prehospital setting.

EMT 1A can be completed in one class. Paramedic preparation involves a one year program which runs from June to May. Special application must be made to the Paramedic program (call the Program Director for details). Classes in this area meet California State EMS authority and ICEMA regulations. For course descriptions, see Section IX of this catalog.

Career Opportunities
Emergency Medical Technician
Paramedic

Faculty
Full Time
John Doyle

Degrees and Certificates Awarded
Associate in Science, Paramedic
Emergency Medical Technician I Certificate (Ambulance)
Emergency Medical Technician Certificate (Refresher)
Paramedic Certificate

Certificate Programs

EMERGENCY MEDICAL TECHNICIAN I CERTIFICATE (AMBULANCE)

Requirements
5.5 units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 71</td>
<td>Emergency Medical Technician I (Ambulance)</td>
<td>5.5</td>
</tr>
</tbody>
</table>

Valid for two years from date of issue.

EMERGENCY MEDICAL TECHNICIAN CERTIFICATE (REFRESHER)

Requirements
1 unit

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 81</td>
<td>Emergency Medical Technician I (Ambulance) Refresher Course</td>
<td>2.0</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

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

PHILOSOPHY

The study of philosophy provides an opportunity to explore the most fundamental concerns of human life. Students examine and assess the concepts of the world's major thinkers and most influential texts regarding such themes as human value, religious experience, political order, truth, and ultimate reality. Philosophical study helps to develop such valuable and transferable skills as analytical reading and writing, creative and critical thinking, and independent judgment. For course descriptions, see Section IX of this catalog.

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

PHILOS 6, 7, 8, 9, REL STS 10
CSU General Education-Breadth Requirements

**University of California, Riverside**

**Philosophy major**

PHILOS 9
Cooperative major with Law and Society: Add SOC 1
Completion of IGETC recommended.

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**PHOTOGRAPHY**

Photography is the science and art of recorded visualization which is widely used with many practical applications and opportunities in the commercial fields and teaching. For course descriptions, see Section IX of this catalog.

**Career Opportunities**

Aerial Surveying
Advertising
Architectural Design
Art
Digital Imaging
Fashion
Film Maker
Forensic and Criminal Applications
Marine Biology
Photo Finishing
Portrait Photography
Product Photography
Photographer’s Assistant
Sports
Teaching

**Faculty**

Full Time
John F. Foster

**Degrees and Certificates Awarded**

Associate in Arts, Fine Arts
Associate in Arts, Liberal Arts

**Certificate Program**

No certificate awarded.

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**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. PHOTO 38 (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

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**PHYSICAL EDUCATION**

Physical Education is an integral part of the total educational program. It contributes to the mental, physical, social and emotional growth and development of each student through physical activity. Leadership, sportsmanship, cooperation, safety and health are stressed. 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 Physical Education 5, all physical education 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**

Dance Instructor  
Lifestyle Counselor  
PE Instructor/Coach  
Recreation Director  
Sports Psychologist

**Faculty**

Full Time  
Debra Blanchard  
John Paine  
Bruce Victor  
Christa White

**Degrees and Certificates Awarded**

Associate in Arts, Liberal Arts

**Certificate Program**

No certificates awarded.

**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  
ANATOMY 1 or 2, PHYSIO 1 or 2, PE 51, 53  
Four courses from: PE 48 or 56, 49, 50, 55, 60  
CSU General Education-Breadth Requirements

Specialties in Athletic Training, Coaching, Exercise Science, Fitness Training, and Sports Medicine are usually under the departments of Physical Education or Kinesiology at the four-year colleges. See Athletic Training and 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  
Oceanographer

**Faculty**

Full Time  
Scott Bryan

**Degrees and Certificates Awarded**

Associate in Arts, Liberal Arts  
Associate in Science, Math/Science

**Certificate Program**

No certificates awarded.

**Associate Degree**

No associate degree offered with a major in Physical Sciences. Physical Science courses may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science. See Math/Science for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. PHY SCI 38 (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:

University of California, Riverside  
Physical Sciences major  
BIOLOGY 1, 2, CHEM 1A, 1B, GEOL 1, MATH 26A, 26B, 26C, 27, PHYSICS 1A, 1B, 1C, H1D  
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.

**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. PHYSICS 38 (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 1A, 1B, CIS 19, MATH 26A, 26B, 26C, 27, PHYSICS 1A, 1B, 1C, HID
CSU General Education-Breadth Requirements

University of California, Riverside
Physics major
CHEM 1A, 1B, MATH 26A, 26B, 26C, 27
PHYSICS 1A, 1B, 1C, HID, ENGL 1A +1B
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.

POLITICAL SCIENCE
Political science is the study of processes, principles, and the structures of government and political institutions. This academic discipline leads toward an understanding of the institutions of government, the role of citizens and political leaders, and the contemporary issues at every level of government. 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
(Bachelor’s or post-bachelor’s degree usually necessary.)
Attorney
Campaign Consultant
Elector
Foreign Diplomat
Government Official/Elected Official
Intelligence Officers & Analysts
Journalist
Law Enforcement
Legislative/Executive Assistant
Lobbyist
Private Business
Urban Planner

Faculty
Full Time
David Dupree

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Certificate Program
No certificates awarded. Although paralegal courses are offered at Victor Valley College, a certificate in Paralegal Studies is not yet approved. 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. Political Science 30, 31, 32, 33, 34, 35, 36 (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
POLSCI 1A, 1B, 10
CSU General Education-Breadth Requirements

University of California, Riverside
Political Science major
POLSCI 1B, 2, 10, MATH 20
Cooperative major with Law and Society: Add PHILOS 7, SOC 1
Cooperative major with Administrative Studies: Add BAD 1A or 2A, 20, CIS 1, MATH 20, 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
Jim Previte
Janice Rank
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. PSYCH 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
Psychology major
PSYCH 1A, 1B, MATH 20, one additional math course
CSU General Education-Breadth Requirements

University of California, Riverside
Psychology major
PSYCH 1A, MATH 20
Two courses from: BIOLOGY 1, 2 or 10, 3, 8
Two courses from: ASTRO 1, CHEM 1A, 1B, GEOG 1,
GEOL 1, 2, 10, PHY SCI 1, 14, PHYSICS 2A, 2B
Completion of IGETC recommended.

University of California, Riverside
Psychobiology major
BIOLOGY 1, 2, 3, 8, or 10, CHEM 1A, 1B, 8A, 8B, MATH 20,
26A, 26B,
PHYSICS 2A, 2B or 1A, 1B, 1C
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
Religion Reporter or 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
REL STS 1, 10
One course from: REL STS 5A, 5B
Completion of IGETC recommended.

RESPIRATORY THERAPY

Respiratory therapy is a health science profession specializing in all forms of heart and lung health and diseases.

The program provides hospital skills 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 American Medical Association. 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, the Math, Science, and Health Division office, and the counseling department.

Career Opportunities
Critical Care Specialist
Diagnostic Testing Specialist
Education
Home Care
Neonatal/Pediatric Specialist
Pulmonary Rehabilitation
Research

Faculty
Full Time
Bob Flome
Larry Boucher

Degrees and Certificates Awarded
Associate in Science, Respiratory Therapy
Respiratory Therapy Certificate

Certificate Program
RESPIRATORY THERAPY
(A.S. AND CERTIFICATE)

This certificate prepares the student to take the state examination to practice as an entry level practitioner.

Requirements
78 units minimum
Group A: 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>RSP THY 30 Introduction to Respiratory Therapy</td>
</tr>
<tr>
<td>10.0</td>
<td>RSP THY 31 Orientation to and Basic Fundamentals of Respiratory Therapy</td>
</tr>
<tr>
<td>10.0</td>
<td>RSP THY 32 Patient Assessment and Clinical Application of Respiratory Care</td>
</tr>
<tr>
<td>13.0</td>
<td>RSP THY 33 Intensive Respiratory Care and Advanced Pulmonary Physiology</td>
</tr>
<tr>
<td>13.0</td>
<td>RSP THY 34 Neonatal and Pediatric Respiratory Care and Pathophysiology and Pulmonary Rehabilitation</td>
</tr>
</tbody>
</table>

Group B: One of the following must be completed:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>SPEECH 6 Human Communication</td>
</tr>
<tr>
<td>3.0</td>
<td>SPEECH 7 Family Communication</td>
</tr>
<tr>
<td>3.0</td>
<td>SPEECH 8 Group Discussion</td>
</tr>
<tr>
<td>3.0</td>
<td>SPEECH 9 Public Speaking</td>
</tr>
</tbody>
</table>

Group C: One of the following must be completed:

One course which meets the VVC Logic/Mathematical general education requirements for Category V (See page 42)

Group D: One of the following must be completed:

One course which meets the VVC Humanities general education requirements for Category III (See page 42)

Group E: One of the following must be completed:

One Physical Education Course

Any course which meets the general education transfer requirements to the CSU or UC system may be used as a general education requirement for the associate degree in Groups III and IV.

The Respiratory Therapy Faculty accepts and operates within the framework of the philosophy and objectives of Victor Valley College.

The Associate Degree in Respiratory Therapy provides a foundation for continuing personal, professional and educational development, and includes the study of the arts, sciences and humanities. The program is designed to produce a competent, self-directed respiratory therapist who, in a variety of settings, can assume leadership in planning, providing, and evaluating respiratory care of individuals and groups; who participates in the determination of the goals of the profession; and who actively searches for knowledge in respiratory therapy and related fields essential to the development and application of scientific respiratory care.
The respiratory therapy graduate receives the Associate of Science Degree and is eligible to take the National Registry Exam for Respiratory Therapists and the entry level exam.

In order to be admitted to the respiratory therapy program, separate application must be made in addition to application to the college. The annual deadline date for submitting applications to be considered for respiratory therapy is April 15. Applications can be obtained through the Allied Health Office or the Counseling Department. Specific prerequisites and requirements are listed in the application.

**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 Emergency Medical Care, Respiratory Therapy, or related majors from Loma Linda University or other universities.

A handout with all transfer requirements for a B.S. degree in Emergency Medical Care, Respiratory Therapy, or 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

**Degrees and Certificates Awarded**
- Associate in Science, Restaurant Management Certificate

**Certificate Program**
- **Restaurant Management Certificate**
The Restaurant Management certificate program gives the student the basic skills and education to become an entry-level manager in the food service industry.

**Requirements**
- **48 units minimum**
All of the following must be completed:
- **First Semester:**
  - RM 81 Prep / Line Cook 3.0
  - RM 82 Waiter/Waitress 3.0
  - RM 86 Sanitation 3.0
  - RM 87 Professional Cooking 3.0
- **Second Semester:**
  - RM 83 Kitchen/Dining Room Training 6.0
- **Third Semester:**
  - RM 84 Kitchen/Dining Room Management 6.0
- **Fourth Semester:**
  - RM 85 Advanced Restaurant Management 6.0

**Rotating Academic List**
- RM 88 Management by Menu 3.0
- RM 89 Purchasing 3.0
- RM 90 Marketing 3.0
- RM 91 Controlling Costs 3.0
- RM 92 Legal Aspects in Food Service 3.0
- RM 93 Supervision 3.0

**Associate Degree**
To earn an Associate of Science degree with a major in Restaurant Management, complete the above Restaurant Management Certificate requirements and meet all Victor Valley College graduation requirements. A student may also take any 18 units from the above certificate or from any Restaurant Management courses and meet all Victor Valley College graduation requirements to earn an associate degree.
Transfer
Victor Valley College Restaurant Management courses do not usually transfer toward a bachelor’s degree program. Students who earn a certificate or degree in Restaurant Management may choose to pursue a bachelor’s degree in Hospitality Management or Hotel and Restaurant Management. The following universities offer degrees in these areas:

California State Polytechnic University, Pomona:
- B.S. in Hotel and Restaurant Management

San Francisco State University:
- B.S. in Hospitality Management with a concentration in Restaurant and Institutional Food Service and Management

San Jose State University:
- B.S. in Hospitality Management

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 which leads to a social science teaching credential at the secondary level, students must choose the credential option within a major in economics, geography, or history at California State University, San Bernardino. Teaching credentials in economics, geography, and history are to be phased out and replaced by a single social sciences credential.

California State University, San Bernardino
History major
Track A (Social Science Credential Option):
- ANTHRO 2, 3, ECON 1A, 1B, GEOG 1 + 1L, GEOG 2, HIST 3A, 3B, 17A, 17B, POL SCI 1A, POL SCI 1B, PSYCH 1A, SOC 1
- CSU General Education Requirements

Economics major
Social Science Credential Option:
- All above courses
- Add: MATH 5 and 20
- CSU General Education Requirements

Sociology
Sociology offers much to the student who desires to understand the web and rhythm of human behavior. From intimate, personal, and family relationships to international corporation activities; from marginality, deviance and crime to recreation, religion and medicine, few disciplines have such broad scope and relevance. For course descriptions, see Section IX of this catalog.

Career Opportunities
(Bachelor’s or advanced degree usually necessary.)
- Claims Examiner
- Criminologist
- Educator
- Employment / Personnel Specialist
- Interviewer/ Researcher
- Law Enforcement/ Probation or Corrections Officer
- Public Relations Consultant
- Social Worker / Counselor
- Statistician / Population Analyst
- Urban Planning Consultant
- Youth Counselor / Recreation Specialist

Faculty
Full Time
Gene Tashima

Degrees and Certificates Awarded
- Associate in Arts, Liberal Arts

Certificate Program
- No certificates awarded.

Associate Degree
No associate degree offered with a major in Sociology. Sociology courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. SOC 38 (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 1
- Students not seeking emphasis in Social Work, select one course from: AJ 12, 14, 27 or SOC 2
- CSU General Education-Breadth Requirements

California State University, San Bernardino
Human Services major
PSYCH 1A, 10, SOC 1
- CSU General Education-Breadth Requirements

2000-2001 Victor Valley College Catalog 123
University of California, Riverside
Sociology major
SOC 1, 2 or 3
Cooperative major with Administrative Studies: Add B AD 1A or 2A, 20, CIS 1, MATH 20,
Joint major with Ethnic Studies: Add SOC 7
Completion of IGETC recommended.

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
Dolores Hinson
Cuauhtemoc Franco
Martha Vila

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Certificate Program
No certificates awarded.

Associate Degree
No associate degree offered with a major in Spanish. Spanish courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major.

Transfer
To pursue a bachelor’s degree, complete the following courses prior to transfer if possible:

California State University, San Bernardino
Spanish major
SPAN 1, 2, 3, 4
CSU General Education-Breadth Requirements
Business Track:
BAD 1A or 2A, CIS 1

University of California, Riverside
Spanish major
SPAN 1, 2, 3, 4
Completion of IGETC recommended.

SPEECH COMMUNICATION

Speech Communication is an expansive field which aims to: (1) analyze, understand, and facilitate expressive communication 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
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
SPEECH 8, JOURN 8
CSU General Education-Breadth Requirements
TEACHING
See "Education."

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 38 (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 6, 7, 10
Three courses from the following: 13, 15, 17, 20
Dance Emphasis: 12 units from the following: PE or TA 21B, 21D, 21N, 21R
Design/Technical Emphasis: one course from the following: TA 13, 15, 17, 20
Music Theatre Emphasis: Music 2A, 2B, 4A, 4B and four units from the following: PE or TA 21B, 21D, 21N, 21R
CSU General Education-Breadth Requirements

University of California, Riverside
Theatre Arts major
No lower division courses required.
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.

Educational Institution Member
Career Opportunities
Welder
Welder- Fitter
Welding Estimator
Welding Inspector
Welding Instructor
Welding Operator
Welding Sales Representative
Welding Service Representative
Welding Supervisor
Welding Technician

Faculty
Full Time
Gary Menser

Degrees and Certificates Awarded
Associate in Science, Welding
Welding Certificate

Certificate Program

WELDING CERTIFICATE

The Welding Technology courses included in the certificate program will give the students the skills necessary to become an entry-level combination welder.

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

<table>
<thead>
<tr>
<th>Units</th>
<th>WELD 51 Oxyacetylene Welding, Cutting, and Brazing</th>
<th>3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units</td>
<td>WELD 52 Shielded Metal Arc Welding-Basic</td>
<td>3.0</td>
</tr>
<tr>
<td>OR</td>
<td>WELD 71 QC-10 Shielded Metal Arc Welding</td>
<td>4.0</td>
</tr>
<tr>
<td>Units</td>
<td>WELD 53 Shielded Metal Arc Welding-Advanced</td>
<td>4.0</td>
</tr>
<tr>
<td>Units</td>
<td>WELD 57A Gas Tungsten Arc Welding-Basic</td>
<td>4.0</td>
</tr>
<tr>
<td>&amp; WELD 57B and Advanced</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>WELD 73 QC-10 Gas Tungsten Arc Welding</td>
<td>3.0</td>
</tr>
<tr>
<td>Units</td>
<td>WELD 58A Gas Metal Arc Welding-Basic</td>
<td>2.0</td>
</tr>
<tr>
<td>OR</td>
<td>WELD 72 QC-10 Gas Metal Arc Welding</td>
<td>3.0</td>
</tr>
<tr>
<td>Units</td>
<td>WELD 58B Gas Metal Arc Welding-Advanced</td>
<td>2.0</td>
</tr>
<tr>
<td>OR</td>
<td>WELD 74 QC-10 Flux Cored Arc Welding</td>
<td>3.0</td>
</tr>
<tr>
<td>Units</td>
<td>WELD 59 Welding Symbols and Blueprint Reading</td>
<td>1.0</td>
</tr>
</tbody>
</table>

QC-10 LEVEL I WELDING CERTIFICATE

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

<table>
<thead>
<tr>
<th>Units</th>
<th>WELD 70 QC-10 Entry-Level Welder Basics</th>
<th>1.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units</td>
<td>WELD 71 QC-10 Shielded Metal Arc Welding</td>
<td>4.0</td>
</tr>
<tr>
<td>Units</td>
<td>WELD 72 QC-10 Gas Metal Arc Welding</td>
<td>3.0</td>
</tr>
<tr>
<td>Units</td>
<td>WELD 73 QC-10 Gas Tungsten Arc Welding</td>
<td>3.0</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 38 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer
Not a transfer major.
IX.

COURSE DESCRIPTIONS

The main thing needed to make men happy is intelligence and it can be fostered by education.

-Bertrand Russell
Course Descriptions

ADMINISTRATION OF JUSTICE

AJ 11 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 12 Criminal Procedures 3.0 Units
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 13 Criminal Law (CAN AJ 4) 3.0 Units
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 14 Legal Aspects of Evidence (CAN AJ 6) 3.0 Units
Origin, development, philosophy, and constitutional basis of evidence; constitutional and procedural considerations affecting arrest, search, and seizure; kinds and degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and cases studies viewed from a conceptual level. Three lecture hours per week. CSU. (No prerequisite)

AJ 23 Police Supervision and Leadership 3.0 Units
This course is designed for the first line supervisor within a law enforcement agency. Emphasis on the principles, traits, characteristics and styles of the professional leader. Concepts of command, management and leadership will be examined. Students will study some of the common problems and their solutions which confront police supervisors. Three lecture hours per week. CSU. (No prerequisite)

AJ 24 Vice, Narcotics and Organized Crime 3.0 Units
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 26 Traffic Control 3.0 Units
Traffic law enforcement, regulation, and control; fundamentals of traffic accident investigation; California Vehicle Code. Three lecture hours per week. CSU. (No prerequisite)

AJ 27 Crime and Delinquency 3.0 Units
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 30 Death Investigation 3.0 Units
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 32 Introduction to Corrections 3.0 Units
Formerly AJ 65
A survey of the field of correctional science. Historical development, current concepts and practice; explanations of criminal behavior; functions and objectives of the criminal justice system concerned with institutional, probation, and parole processes as they modify the offender’s behavior; survey of professional career opportunities in public and private agencies. Three lecture hours per week. CSU. (No prerequisite)

AJ 33 Writing for Criminal Justice 3.0 Units
Techniques of communicating facts, information, and ideas effectively in a simple, clear, and logical manner in the various types of criminal justice system reports; letters, memoranda, directives, and administrative reports; emphasis on criminal justice terminology, use of English, and organization of information; practice experience in note taking and report writing; presentation of testimony in court. Three lecture hours per week. CSU. (No prerequisite)

AJ 34 Police Field Operations 3.0 Units
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 35 Juvenile Law and Procedures 3.0 Units
Techniques of handling juvenile offenders and victims; prevention and repression of delinquency; diagnosis and referral; organization of community resources. Juvenile law and juvenile court procedures. Three lecture hours per week. CSU. (No prerequisite)

AJ 38 Cooperative Education
See Cooperative Education listing (1-8 units).
AJ 40 Communication Skills for Interviewing and Interrogation 3.0 Units
The course will focus on the technical and legal aspects of interview and interrogation within the Administration of Justice system. It will provide the student with the communication skills required to elicit reliable and admissible information from witnesses and suspects. Constitutional and Legislative law will be emphasized. Three lecture hours per week. (No prerequisite)

AJ 48 Special Topics
See Special Topics listing (Variable units).

AJ 49 Independent Study
See Independent Study listing (1-3 units).

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.

AJ 62A 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 62A and AJ 62B must be successfully completed in consecutive semesters. Twelve lecture, six laboratory hours per week. (Prerequisite: AJ 61, DOJ Records check, and medical exam verifying medical clearance for the POST physical agility test. Credit/No Credit) This course may be repeated.

AJ 62B 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 62A, the previous semester. Credit/No Credit) This course may be repeated.

AJ 63 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
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 environments, 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 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 101  School Police Officer (PC 832.2)  3.0 Units
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 102  Career Development in Criminal Justice  1.5 Units
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 110  Firearms Training  0.5 Unit
This course satisfies the Commission on Peace Officer Standards and Training (POST) firearms certification for the Level III reserve and PC 832. Additionally, this course exceeds the State of California firearms safe handling and use certification required from any person purchasing a firearm in California. This course will not apply to the Associate Degree. Eight labo-
Medical Aspects of Drugs and Alcohol 3.0 Units
This course will provide an in-depth study of the physiological effects and medical consequences of drug and alcohol use and abuse, including the effects on the central nervous system and behavior. The pharmacological aspects of drug and alcohol use will be presented including metabolism of various drugs, the meaning and implication of “half-life,” tolerance, dependence, addiction process, and withdrawal. Categories of substances covered will include major and minor stimulants, alcohol, depressants, psychotropic drugs, opiates, marijuana, hallucinogens, and other prescription and over-the-counter drugs. Three lecture hours per week. CSU. (Prerequisite: AH 20 or PE 30 Athletic Training I, or equivalent.)

AH 25 Medical Aspects of Drugs and Alcohol 3.0 Units

AH 38 Cooperative Education
See Cooperative Education listing (1-8 units).

AH 39 Medical Terminology 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)

AH 43 Special Topics
See Special Topics listing (Variable units).

AH 49 Independent Study
See Independent Study listing (1-3 units).

AH 50 Paramedic Anatomy and Physiology and Medical Terminology 3.0 Units
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.

AH 51 Paramedic Introduction to EMS 1.0 Unit
This course covers the roles and responsibilities of the EMT-R. 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.

AH 52 Paramedic Cardiology 4.0 Units
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.

AH 53 Paramedic Pharmacology 3.5 Units
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.

AH 54 Paramedic Advanced Cardiac Life Support 1.0 Unit
This course will provide a review of basic cardiology, pharmacology, and EKG interpretation used in Advanced Cardiac Life Support. One lecture hour per week. Offered Fall. (No prerequisite) This course may be taken two times.

AH 55 Paramedic Emergency Medical Services 8.0 Units
Theory
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.

AH 56 Paramedic Clinical 3.0 Units
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.

AH 57 Paramedic Field Internship 11.0 Units
This course is the field internship portion of the Paramedic program. Students will spend 600 hours in the field with a transport service performing Emergency Medical Technician skills. Thirty-three hours of laboratory per week. Offered Spring. (No prerequisite) This course may be taken two times.

AH 70 Nursing Assistant 4.5 Units
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 AH 95 or other Healthcare Provider CPR program.)

AH 71 Emergency Medical Technician I (Ambulance) 5.5 Units
The first phase of training in the Emergency Medical Technician I (Ambulance) career structure. Covers all techniques of emergency medical care considered the responsibility of the Emergency Medical Technician. Course emphasizes the development of student skill in recognition of symptoms of illness and injuries and proper procedures of emergency care; course includes certification in professional CPR. Approved by the Inland County Emergency Medical Agency; certificate of completion awarded. 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.)
ATHLETIC TRAINING III 2.0-6.0 UNITS

In this course, students will provide the pre-participation, on-site first aid and event maintenance for fall/ winter/ spring sports programs at VVC (baseball, basketball, football, golf, soccer, softball, tennis, volleyball and wrestling.) Experience will include but is not limited to, prophylactic taping and padding, immediate first aid, monitoring vital signs, completion of accident forms, proper use of universal biohazard precautions, supervision of safe playing conditions and coaching techniques, recognition of medical emergencies, assisting other medical personnel as needed, game preparation and pre-participation medical screenings. Eighteen laboratory hours per week. See cross listing for PE 76. (Prerequisite: AH 20 or PE 30 Athletic Training I, or equivalent.) This course may be taken four times.

ATHLETIC TRAINING IV 2.0-6.0 UNITS

In this course, students will provide the care to athletes involved in fall/ winter/ spring sports programs at VVC (baseball, basketball, football, golf, soccer, softball, tennis, volleyball and wrestling.) Experience will include but is not limited to development and implementation of rehabilitation protocols. Use of modalities including, whirlpool, ultrasound, ice, Emergency Medical Services, hydroculator, Range of Motion exercises, joint mobilization, strengthening exercises (isokinetic, isometric, isometric), cardiovascular conditioning and proprioceptive exercises. See cross listing for PE 77. Eighteen laboratory hours per week. Offered Fall. (Prerequisite: AH 20 or PE 30 Athletic Training I, or equivalent.) This course may be taken four times.

HOME HEALTH AIDE 1.5 UNITS

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 AH 70 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 AH 95 or other acceptable Healthcare Provider CPR course.)

ACUTE CARE CNA 4.0 UNITS

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 AH 70 Nursing Assistant course this sem-
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)

**AH 95 Basic CPR (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.

**AH 97 Basic CPR Instructors Course** 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)

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**ANATOMY**

**ANATOMY 1 Human Anatomy (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 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: BIOLOGY 10)

**ANATOMY 2 Human Anatomy** 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)

**ANATOMY 5A 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: Human Anatomy 1 completed with a “C” grade or better.)

**ANATOMY 5B 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: Human Anatomy 1 completed with a “C” grade or better.)

**ANATOMY 5C Human Gross Anatomy, Head and Neck** 1.5 Units

An advanced anatomy class that utilizes 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: Human Anatomy 1 completed with a “C” grade or better.)

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**ANTHROPOLOGY**

**ANTHRO 1 Introduction to Physical Anthropology (CAN ANTH 2)** 3.0 Units

Biological anthropology explore 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. (No prerequisite)

**ANTHRO 1L Physical Anthropology Laboratory 1.0 Unit

Coordinated with the lecture, this optional 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 (No prerequisite. Grade Option)

**ANTHRO 2 Introduction to Cultural Anthropology** 3.0 Units

Cultural anthropology explores the social aspect of being human, in context with the multicultural approach. This course provides international comparisons of all aspects of culture such as societal organization, economy, marriage and family, language development, gender issues, religion, and traditions and rituals. The development and evolution of cultural groups is discussed in relation to how several of these groups successfully adapt to particular environments. Drawing from anthropology and other social sciences, the history and development of Modern World System Theory and its effect on culture groups worldwide is outlined. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite. Grade Option)
ANTHRO 3  Introduction to Archaeology  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. (No prerequisite. Grade Option)

ANTHRO 4  Anthropology Field Class  3.0 Units
This course provides the student with hands-on experience in the excavation and investigation of an archaeology site and the materials contained in archaeology sites, the archaeological methods used to excavate sites, and how archaeologists relate the artifacts and other remains found on the sites to human behavior. One-half hour lecture, seven and one half laboratory hours per week. CSU. (No prerequisite. Grade Option) This course may be taken three times.

ANTHRO 5  Indians of North America  3.0 Units
An introduction to various Native American groups north of Mexico. Includes the study of their prehistory, subsistence patterns, religion, social and political organization, and culture change. Emphasis will be given to those groups of the Western United States with a special focus on Indians of California. Three lecture hours per week. CSU, UC. Offered Fall. (No prerequisite)

ANTHRO 28  Special Topics
See Special Topics listing (Variable units).

ANTHRO 29  Independent Study
See Independent Study listing (1-3 units).

ANTHRO 54L  Archaeology Lab  2.0 Units
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.)

ART AND DESIGN

ART 1A  Survey of Art History (CAN ART 2)  3.0 Units
An historical survey of significant art from prehistoric times through the fourteenth century. CSU, UC. Offered Fall. (No prerequisite)

ART 1B  Survey of Art History (CAN ART 4)  3.0 Units
An historical survey of significant art from the Renaissance through modern times. Three lecture hours per week. CSU, UC. Offered Spring. (No prerequisite)

ART 4  Film As An Art Form  3.0 Units
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 5  Introduction to Art  3.0 Units
This is an illustrated lecture course involving critical thinking. An introduction to the basic elements of art and life as expressed in sculpture, painting, architecture, mixed media, film, and contemporary archetypes. Emphasis will be on the evolution of contemporary art in Western cultures. Three lecture hours per week. CSU, UC. Offered Fall and alternate summers. (No prerequisite)

ART 6  Art Concepts  3.0 Units
An illustrated lecture course that evaluates the role of art over the ages as a medium to define who we are and why we exist. Three lecture hours per week. CSU, UC. Offered Spring and alternate summers. (No prerequisite)

ART 7  The Art and Life of Greece  3.0 Units
This is an illustrated lecture course. Conceptual analysis of the effects of Greek art upon Greek life will be investigated from the formative years of 1100 B.C. (the evolution 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 8  The Art and Life of Italy  3.0 Units
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 12A  Design I  3.0 Units
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 12B  Design II  3.0 Units
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 12C  Color, Structure, and Design  (CAN ART 16)  3.0 Units
Formerly Color and Design
This course is an expansion of the problem solving goals completed in Art 12B. Mass, form, volume as derived in analytical and critical dissection of design foundations will include the approaches to the science of color and three dimensional structures presented in problematic situations for students' resolution through critical thinking and self-resourcefulness. Student success will be evaluated through critiques, knowledge of historical fact deriving contemporary validity. Discussion of computer graphics. Repetition of this course provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered Spring. (No prerequisite)

ART 15  Water-Based Media  3.0 Units
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 17A  Acrylic Painting (CAN ART 10)  3.0 Units
Designed as a problem solving course, students will be introduced to the basics of acrylic painting, design, conceptual thought, history, and composition. A knowledge of history and artists will be an asset to the students' comparative analogies of their work and its message. Repetition of this course provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU, UC. (No prerequisite) This course may be taken four times.

ART 17B  Intermediate Acrylic Painting  3.0 Units
Problems of techniques, medium control, and creative validity will be presented to the student as he seeks to ratify his quality judgments in visual form through resolutions derived from a historical context and implemented into contemporary focus. Critical thinking is intended to be a major component of this course. Repetition of this course provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered Spring. (No prerequisite) This course may be taken four times.

ART 18A  Introduction to Life Drawing  (CAN ART 24)  3.0 Units
Concentrated study and analysis of the human form using basic art materials in drawing from models. Repetition provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

ART 18B  Intermediate Life Drawing  3.0 Units
Analysis and implementation of techniques to show expression, mass, motion; critical visualization by drawing direct studies from live models. Repetition provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

ART 18C  Anatomy for Life Drawing  3.0 Units
Critical dissection of anatomical and physiological studies incorporated into the fine art of life drawing. Repetition of this course provides skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite) This course may be taken four times.

ART 19A  Introduction to Oil Painting  3.0 Units
A basic course in painting with oil pigments. Emphasis in this course will involve problem solving experiences and critical judgments to correlate with individual aesthetics and to obtain unambiguous visual statements of knowledge and belief through the artistic process. Repetition of this course provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered alternate semesters. (No prerequisite. ART 25A and ART 12A/B recommended) This course may be taken four times.

ART 19B  Intermediate Oil Painting  3.0 Units
There will be continuation of techniques covered in Art 19A with an emphasis upon aesthetics, art history, critical analysis, and creativity. The student, through his own resourcefulness, is to formulate problems of compositional design, control of the medium and establish value judgments based upon fact that will be reflected in his works. Repetition of this course provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered alternate semesters. (No prerequisite) This course may be taken four times.

ART 25A  Drawing and Composition  (CAN ART 8)  3.0 Units
A basic drawing course involved with compositional arrangements designed to assist the student to function as an artist through critical thinking. The student should achieve an understanding of the relationship of language visualization to logic, which should lead to the ability to analyze, criticize, and advocate original ideas, to reason inductively and deductively, and to reach factual or judgmental conclusions based on sound inferences drawn from unambiguous statements of knowledge or belief. Repetition of this course provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite) This course may be taken four times.

ART 25B  Drawing and Composition  3.0 Units
An intermediate drawing course emphasizing development of skills in various media and studies of compositional methods. Extended concentration is to include the ability to distinguish fact from judgment, belief from knowledge, and skills in elementary inductive and deductive visual processes which include an understanding of the formal and informal fallacies of language and thought in the artistic process. Repetition of this course provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU, UC. Offered Spring. (No prerequisite) This course may be taken four times.

ART 28  Special Topics
See Special Topics listing (1-3 Variable units per semester).
ATHLETICS

ART 29  Independent Study
See Independent Study Listing (1-3 units).

ART 30  Caricature Illustration  3.0 Units
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 31  35 MM Color Slide Photography  3.0 Units
A basic course in color slide photography featuring 35 mm cameras, slide films, indoor and outdoor photography, emphasis on originality and composition. Students will prepare a final slide presentation with narration or edited music. Repetition of this course provides the opportunity for increased skill development. Two lecture, three laboratory hours per week. CSU. Offered alternate years. (No prerequisite) This course may be taken two times.

ART 32  Advertising Art  3.0 Units
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 33A  Computer Graphics  3.0 Units
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 38  Cooperative Education
See Cooperative Education Listing (1-8 units).

ASTRONOMY

ASTRONOMY 1 Descriptive Astronomy  3.0 Units
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)

ASTRONOMY 50 Working As Astronomers  2.0 Units
Astronomical instrument operation, elementary celestial mechanics and sidereal time computations, observing practices and principles. One lecture, three laboratory hours per week. (No prerequisite)

ATHLTCS 20 Varsity Baseball  3.0 Units
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.

ATHLTCS 21  Varsity Basketball (Men)  1.5 Units
Students will learn the basic skills, rules, and strategies for competition in baseball. CSU, UC (UC maximum credit allowed: 4 units) Offered Fall, Spring. This course may be taken four times.

ATHLTCS 22  Varsity Basketball (Women)  1.5 Units
Students will learn the basic skills, rules, and strategies for competition in baseball. CSU, UC (UC maximum credit allowed: 4 units) Offered Fall, Spring. This course may be taken four times.

ATHLTCS 23  Cross Country (Women)  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. This course will not apply to the Associate Degree. (No prerequisite. Recommended: high school or club cross country running.) This course may be taken four times.

ATHLTCS 24  Varsity Football  3.0 Units
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.

ATHLTCS 25  Varsity Golf  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 Spring. This course may be taken four times.

ATHLTCS 26  Varsity Soccer (Women)  3.0 Units
Students will learn the basic skills, rules, and strategies for competition in soccer. CSU, UC (UC maximum credit allowed: 4 units) Offered Spring. This course may be taken four times.

ATHLTCS 27  Varsity Softball  3.0 Units
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.

ATHLTCS 28  Varsity Tennis (Women)  3.0 Units
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.

ATHLTCS 29  Varsity Tennis (Men)  3.0 Units
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.
AUTOMOTIVE

AUTO 38 Cooperative Education
See Cooperative Education listing (1-8 units).

AUTO 50 Introduction to Automotive Technology
This course is designed to provide an introduction to automobile repair for the general public as well as those who intend to go on to more specialized training. 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)

AUTO 52 Automotive Brakes, Suspension and Wheel Alignment
12.0 Units
This course covers diagnosis and repair of the components of brakes and suspension systems: Drum and disc brakes, brake hydraulics, power assist units, front and rear suspension types, shocks and McPherson struts, steering linkage, 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)

AUTO 53 Automotive Tune-Up, Emission Control, and Fuel Systems
12.0 Units
This course covers techniques used by the automotive industry to diagnose and repair ignition systems, fuel systems and emission control systems. Instruction will cover the diagnosis and repair of conventional and early electronic ignition systems, conventional and feed back carburetors, and emission control devices. Eight lecture, twelve laboratory hours per week. (Prerequisite: AUTO 50)

AUTO 54 Automotive Computers, Electronics and Electrical Systems
12.0 Units
This course covers techniques used by the automotive industry to diagnose and repair computer, fuel injection, and electronic ignition systems. Instruction will cover the diagnosis and repair of electronic ignition systems, alternators and starters, computers, and basic electrical and electronic concepts as they apply to the automobile. Eight lecture, twelve laboratory hours per week. (Prerequisite: AUTO 53 or equivalent)

AUTO 55 Automotive, Light/Medium Diesel Engine Repair
4.0 Units
This course covers the techniques used by the Automotive and Medium Truck industries to diagnose and repair compression pressure combustion designed, four stroke, diesel fueled engines. Instruction will cover diesel engine design and operation, diesel fuel systems, air induction systems, heavy duty electrical, and introduction to electronic fuel control. Three lecture, three laboratory hours per week. (Prerequisite: AUTO 51)
**AUTO 56** 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 determined 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)

**AUTO 57** Compressed Natural Gas Systems 4.0 Units
This course covers the techniques used by the automotive and light truck industries to safely diagnose, repair and install compressed natural gas fuel systems. Instruction will cover engine design and operation, CNG dedicated, bi-fuel and dual-fueled type fuel systems, high pressure steel lines and fittings installation, gas cylinder visual inspection, engine tune-up and electronics. Three lecture, three laboratory hours per week. (Prerequisite: AUTO 53)

**AUTO 58** Transmission Computer Systems 2.0 Units
This course covers techniques used by the Automotive Industry to diagnose and repair transmission computer systems. Instruction will cover the diagnosis and repair of runability problems relating to electronic malfunctions of the computer controlled transmission. One and one-half lecture, one and one-half laboratory hours per week. (Prerequisite: AUTO 125)

**AUTO 60A** Fundamental Clean Air Emissions, Basic Area 4.0 Units
This course prepares students to pass the California State Smog Examination for a basic emissions area. Topics covered include emission laws, the diagnosis and repair of computer, fuel systems, ignition systems, 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 60B** California Clean Air Emissions Basic Area Course 2.0 Units
This course prepares students to take the California State Smog Examination for basic emissions area. Topics covered include emission and engine fundamentals, emission laws, and operation of the TAS (test analyzer system). Three lecture, three laboratory hours for nine weeks. (No prerequisite) This course may be taken two times.

**AUTO 61** Advanced California Clean Air Car Course 1.5 Units
This course prepares students to pass the Advanced California State Smog Examination for an enhanced emissions area. Topics covered include emission laws, the diagnosis and repair of computer, fuel systems, ignition systems, electrical and electronic concepts as they apply to the automobile. This course trains technicians to use BAR '97 loaded mode test and repair diagnostic equipment. Three lecture, four laboratory hours per week for six weeks. (No prerequisite)

**AUTO 62** Automotive Service Writing and Shop Manager 2.0 Units
This course prepares students to manage an automotive repair shop. Topics covered include work order preparation, parts and labor estimating, parts ordering, office and shop organization, writing a legal work order, sales skills, and customer relations. One and one-half lecture, one and one-half laboratory hours per week. (No prerequisite)

**AUTO 62L** Automotive Service Writing and Shop Manager Laboratory 2.0 Units
This course prepares students to effectively write automotive service orders and manage an automotive repair shop. Topics covered include labor guide look up and labor calculation, work order preparation, parts and labor estimating, parts ordering, office and shop organization, writing a legal work order, sales skills, and customer relations. Six laboratory hours per week. (Prerequisite or Corequisite: AUTO 62. It is recommended that the student possess basic automotive repair knowledge. Credit/No Credit)

**AUTO 63** Auto Parts Counter Person 4.0 Units
This course prepares students to perform the duties of a counter person in an auto parts store. Topics covered will include automotive assemblies, systems and basic parts. Course includes instruction in customer service, telephone technique, sales, merchandising, and cash drawer management. Three lecture, three laboratory hours per week. (No prerequisite)

**AUTO 63L** Auto Parts Counter Person Laboratory 2.0 Units
This course prepares students to perform the duties of a counter person in an auto parts store. Topics covered include building on the skills learned in Auto 63 which include customer contacts, telephone technique, sales, merchandising, and repair order entry. Six laboratory hours per week. (Prerequisite or Corequisite: AUTO 63. Credit/No Credit)

**AUTO 64** Auto Body Repair 4.0 Units
Basic auto body repair and refinishing techniques to prepare students with entry level skills required by the automotive industry. Three lecture hours, three laboratory hours per week. (No prerequisite)

**AUTO 65** Basic Automotive For Consumers 1.0 Unit
This course covers preventative maintenance techniques for the modern automobile. Instruction will cover the theory and minor repair 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)

**AUTO 67** Automotive Computer Systems 2.5 Units
This course covers techniques used by the Automotive Industry to diagnose and repair computer systems including On-Board Diagnostic II. Instruction will cover the diagnosis and repair of computer related electronic ignition, fuel injection, and emission systems. One and one-half lecture hours, three laboratory hours per week. (Prerequisites: Auto 53 or Auto 60A)
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)

**AUTO 69** Automotive Suspension and Alignment 4.0 Units
This course covers diagnosis and repair of the components of automotive suspension, front and rear suspensions, shocks, struts, control arms, bushings, steering components, and related parts will be disassembled, inspected and determination made of the serviceability of existing parts. The need for replacement parts will be established as the components are disassembled, inspected, and reassembled. Alignments of different types of vehicles, including two and four wheel alignments, computer and non-computer alignments will be completed. Three lecture hours, three laboratory hours per week. (Prerequisite: AUTO 50 or equivalent experience in the automotive repair field.)

**AUTO 70** Leadership and Public Event Planning .5-2.0 Units
(Formerly Auto 130) 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)

**AUTO 73** Heavy Duty Diesel Truck Lubrication and Inspection Technician 4.0 Units
This course covers the techniques used by the Trucking Industry to perform routine preventative maintenance on heavy duty diesel trucks. Instruction will cover changing fluids, lubrication, safety inspections, and installing filters. Three lecture, three laboratory hours per week. (No prerequisite)

**AUTO 74** Heavy Duty Diesel Engine Repair 4.0 Units
This course covers the techniques used by heavy duty truck industries to diagnose and repair compression pressure combustion designed, four stroke and two stroke diesel fueled engines. Instruction will cover diesel engine design and operation, diesel fuel systems, air induction systems, heavy duty electrical, and introduction to electronic fuel control with emphasis on engine overhaul. Three lecture, three laboratory hours per week. (Prerequisite: AUTO 51)

**AUTO 75** 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 76** Electric Vehicle Design and Production 2.0 Units
This course explores the history and use of electric power for vehicle transportation. Conversion vehicles and factory designs will be studied. This class introduces the advantages and disadvantages of electric vehicles, design consideration, maintenance, specialized driving techniques and electric vehicle safety. Course includes the design of a mini electric vehicle. Three lecture hours, three laboratory hours per week. (Prerequisite: AUTO 76) This course may be taken three times.

**AUTO 77** Electric Vehicle Design and Construction 2.0 Units
This course explores the design and construction of electric vehicles for transportation. The gas to electric conversion process will be studied. This class addresses the advantages and disadvantages of electric and hybrid vehicles, specialized driving techniques and electric vehicle safety. Course includes the construction of a mini electric vehicle. Three lecture hours, three laboratory hours per week. (Prerequisite: AUTO 77) This course may be taken three times.

**AUTO 80** Basic Tune-Up 2.0 Units
This course covers techniques used by the Automotive Industry to diagnose and repair fuel and ignition systems. Topics cover the diagnosis and repair of conventional and electronic ignition systems, fuel systems, and introduction to automotive computers. Three lecture hours, three laboratory hours per week for nine weeks. (No prerequisite)

**AUTO 81** Automotive Lubrication Technician 2.0 Units
This course covers techniques used by the Automotive Industry to perform routine preventative maintenance. Instruction will cover changing automotive fluids, lubrication, safety inspections, installing filters and ignition components. Three lecture hours, three laboratory hours per week for six weeks. (No prerequisite)

**AUTO 82** Automotive Tire Technician 2.0 Units
This course covers techniques used by the Automotive Industry to perform duties of a tire technician. Instruction will cover brake and suspension inspections, mounting, balancing, and repairing tires. Three lecture hours, three laboratory hours per week for six weeks. (No prerequisite)

**AUTO 83** 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. (Prerequisite: Auto 51 or equivalent)

**AUTO 84** Automotive Glass Installation I 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 90 Electric Vehicle Design and Production 2.0 Units
This course explores the use of electric power for vehicle transportation. Conversion vehicles and factory designs will be studied. This class introduces the advantages and disadvantages of electric vehicles, design consideration, specialized driving techniques and electric vehicle safety. Course includes the gasoline to electric conversion process. One and one-half lecture, one and one-half laboratory hours per week. (No prerequisite) This course may be taken three times.

AUTO 98 Special Topics
See Special Topics listing (Variable units).

AUTO 115 Trouble Shooting and Repair of Ignition and Fuel Systems 4.0 Units
This course covers techniques used by the automotive industry to diagnose and repair ignition systems and fuel systems. Topics covered included the diagnosis and repair of conventional and electronic ignition systems, conventional and feed back carburetors, along with emission control devices. Three lecture, three laboratory hours per week. (No prerequisite)

AUTO 117 Automotive Air Conditioning and Heating Systems 4.0 Units
This course covers diagnosis and repair of the components of air conditioning and heating systems; evaporators, compressors, control valves, condensers, blowers, heater cores, and all lines and hoses. Air conditioning and heating related parts will be disassembled, inspected and determination made of the serviceability of existing parts. The need for replacement parts will be established as the components are reassembled. Recovery and charging of different systems will be covered for both R-12 and R-134 systems. Three lecture, three laboratory hours per week. (No prerequisite)

AUTO 119 Automotive Computers, Electronics, and Electrical Systems 4.0 Units
This course covers techniques used by the automotive industry to diagnose and repair computer and fuel injection systems. Topics covered include the diagnosis and repair of electronic ignition systems, alternators and starters. Basic electrical and electronic concepts as they apply to the automobile. Three lecture, three laboratory hours per week. (No prerequisite)

AUTO 125 Automatic Transmission Overhaul 5.0 Units
This course covers diagnosis and repair of the components of automatic transmission systems: clutches, bands, servo valve bodies, hydraulic pumps, cases, governors, torque converters, and electronic controls. Automatic transmissions and related parts will be disassembled, inspected and determination made of the serviceability of existing parts. The need for replacement parts will be established as the components are disassembled, inspected and reassembled. Three lecture, six laboratory hours per week. (Prerequisite: AUTO 51)

AUTO 132 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)

BASIC SKILLS
(Developmental Education at the Academic Commons)

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 110A Practical and Critical Reading 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 110B Word Skills in Reading and Writing 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 110C Sentence Skills 1.0 Unit
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 111A Paragraph Skills 1.0 Unit
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 111B Writing Invention and Revision 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 111C Writing and Editing Skills 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 112A Addition and Subtraction of Whole Numbers 1.0 Unit
This course will review computations with whole numbers (addition and subtraction) and meanings of sum and difference of whole numbers. The course also introduces translations of verbal problems into mathematical statements and includes instruction in rounding, approximation, and numerical estimation. This course will not apply to the Associate Degree. (No prerequisite) This course may be taken three times.

BSKL 112B Multiplication and Division of Whole Numbers 1.0 Unit
This course will review computations with counting, addition and subtraction of whole numbers. It will then introduce computations with whole numbers (multiplication and division) and meanings of translations of verbal problems into mathematical statements, and includes instruction in rounding, approximation, and numerical estimation. This course will not apply to the Associate Degree. (No prerequisite) This course may be taken three times.

BSKL 112C Introduction to Fractions and Decimals 1.0 Unit
This module is individualized to fit the needs of each student. It is a continuation of computations involving fractions, decimals, and percents. Equivalent forms for comparison and ordering are introduced. The emphasis is on mixed numbers and word problems. This course will not apply to the Associate Degree. (No prerequisite) This course may be taken three times.

BSKL 112D Operations with Fractions, 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 vice versa. This course also introduces translations of verbal problems into mathematical statements. This course will not apply to the Associate Degree. (No prerequisite) This course may be taken four times.

BIOLOGY 1 Biology of Cells (CAN BIOL 2) 5.0 Units
Scientific methods, molecular biology, biochemistry, structure and function of cells; cellular reproduction, gene action, operations and classification of single-celled organisms. Course is designed for preprofessional and biological science majors but is open to all students. Majors should also take Biology 2 and 3. Three lecture, six laboratory hours per week. CSU, UC. Offered Fall. (Prerequisite: CHEM 1A or CHEM 10 as prerequisite or corequisite)

BIOLOGY 2 Biology of Organisms (CAN BIOL 4) 5.0 Units
An introduction to the classification of organisms. Survey of plants and animals with emphasis on comparative systems, morphology, and physiology, and development of organisms. Course is designed for preprofessional and biological science majors but is open to all students. Majors should also take BIOLOGY 1 and 3. Three lecture, six laboratory hours per week. CSU, UC. Offered Spring alternating with BIO 3. (Prerequisite: CHEM 1A or CHEM 10 as prerequisite or corequisite)

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. Topics also include genetics, evolution, behavior, communications, and interactions of populations. Course is designed for pre-professional and biological science majors but is open to all students. Majors should also take BIOLOGY 1 and 2. Three lecture, three laboratory hours per week. CSU, UC. Offered Spring alternating with BIO 2. (Prerequisite: CHEM 1A or CHEM 10 as prerequisite or corequisite)

BIOLOGY 4 General Botany 4.0 Units
Course surveys plant evolution and classification. The major emphasis is on Pteridophytes and Angiosperms. Includes brief introductions to photosynthesis, respiration, transpiration, cell biology, plant cell structure, and plant physiology. The course is designed for non-majors. Three lecture, three laboratory hours per week. CSU, UC. Offered Spring. (No prerequisites)

BIOLOGY 8 Principles of Heredity 3.0 Units
Survey of principles of inheritance; role of heredity in plants and animals; implications in human genetics. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

BIOLOGY 10 General Biology 4.0 Units
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)

BIOLOGY 11 Introduction to Human Biology 4.0 Units
An introductory course in biological principles with a human perspective. Emphasis on cellular structure and function, organ systems, the concept of homeostasis, adaptation, cellular and population genetics, and the interaction of the human species with the ecosystems. Three lecture, three laboratory hours per week. CSU. Offered Fall (No prerequisite)

BIOLOGY 14 Introduction to Ecology 3.0 Units
The structure and function of populations, communities, and ecosystems, emphasis on the activities of man in relation to the natural world. Current topics such as wildlife management, world food and population problems, and environmental planning. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite)
BIOLOGY 16 Natural History of the Mojave Desert 3.0 Units
Survey of native plants and animals of the Mojave Desert. Emphasis on identification and life history of local forms and their special adaptations to survival in the desert. Three lecture hours per week. CSU. Offered Spring. (No prerequisite. Grade Option)

BIOLOGY 17 Identification and Study of Birds of the Mojave Desert and Adjacent Mountains 3.0 Units
Field identification of 75 bird species of the local area. Includes song and habitat identification, study of birds' feathers, colors, and their uses. Adaptations of bills, feet, wings, and bones. Course also covers the food of birds, their ecological relationships, eggs and nests, senses and behavior, flight and song. Course touches briefly on bird migration. Two lecture, three laboratory hours per week. CSU. (No prerequisite. Grade Option)

BIOLOGY 18 Identification and Study of Amphibians and Reptiles of the Mojave and Adjacent Mountains 3.0 Units
Study of identification, habitats, characteristics of morphology, behaviors, reproduction and adaptations of local amphibians and reptiles. The course also includes poikilothermic temperature regulation, larval stages, respiration, significance of amniotic egg adaptation to xeric habitats. Two lecture, three laboratory hours per week. CSU. (No prerequisite)

BIOLOGY 19 Identification and Study of Mammals of the Mojave Desert and Adjacent Mountains 3.0 Units
This course briefly reviews mammalian characteristics, mammalian origins, and the classification of mammals. It discusses the natural history, temperature regulation mechanisms, and survival adaptations of each representative order that occurs in the desert. Two lecture, three laboratory hours per week. CSU. (No prerequisite)

BIOLOGY 20 Identification and Study of Wildflowers 3.0 Units
This course employs an evolutionary approach to give students a working knowledge of plant classification, as well as an appreciation for the diversity of the flora of southern California. Students will learn how to use keys to identify local plant species, learn characteristics of the most common plant families, and will be able to describe, identify, and understand some of the dynamics of local plant communities. Vigorous field activities are required. Four lecture, six lab/field trip hours per week for 9-week course; two lecture, three lab/field trip hours per week for 18-week course. CSU. (No prerequisite. Grade Option)

BIOLOGY 29 Independent Study See Independent Study listing (1-3 units).

BIOLOGY 38 Cooperative Education See Cooperative Education listing (1-8 units).

BIOLOGY 60 Natural History of Costa Rica 2.0 Units
This course offers students the opportunity to learn first hand about plants, animals, ecology, geography, and conservation policies of Costa Rica. Eighteen total lecture hours; 54 total class hours. (Prerequisite: No class prerequisite, but students must obtain passport in order to participate.) This course may be taken four times.

BUSINESS ADMINISTRATION

BAD 1A Elementary Accounting (CAN BUS 2) 4.0 Units
Introduction to accounting theory and practice for a sole proprietorship. Concepts and principles are developed in a logical progression from basic transactions of a service enterprise to the more complex transactions of a merchandise enterprise. Accounting theory is reinforced by the completion of a practice set which includes the recording, analyzing, and summarizing of business transactions. Four lecture, one laboratory hour per week. CSU, UC (UC credit limitation). Offered Fall, Spring. (No prerequisite)

BAD 1B Elementary Accounting (CAN BUS 4) 4.0 Units
Application of the basic principles of partnership and corporate organizations, and study of the theory and practices unique to these more complex business forms. Manufacturing cost, branch and departmental accounting, budgeting, special reports for management, and statement analysis. Four lecture, one laboratory hour per week. CSU, UC (UC credit limitation). Offered Spring. (No prerequisite)

BAD 2A Principles of Accounting (CAN BUS 2) 3.0 Units
A study of the theory and practice of accounting for a sole proprietorship. Concepts and principles are introduced in a logical progression from the introduction of the accounting equation to preparation of financial statements. The course focuses on both service enterprises and merchandise enterprises. Business transactions are recorded, analyzed, and summarized within the accounting system of record keeping. Three lecture hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring. (No prerequisite)

BAD 2B Principles of Accounting (CAN BUS 4) 3.0 Units
Introduction to the theory and practice of accounting for partnerships. Concepts and principles are introduced in a logical progression from the introduction of the accounting equation to preparation of financial statements. Special emphasis is placed on managerial accounting principles of the job order cost system, process cost systems, and budgeting and standard cost systems. Three lecture hours per week. CSU, UC (UC credit limitation). Offered Spring. (No prerequisite)

BAD 3 Managerial Accounting 3.0 Units
Emphasizes the use of accounting information to implement management's decision making and organizational control responsibilities. Presents an overview of product costing, responsibility accounting, break-even analysis, and other financial tools used in the decision-making process for profit, planning,
and control. Present value analysis in ranking investment projects and measuring the desirability of investment. Three lecture hours per week. CSU. Offered Fall. (No prerequisite)

BAD 4A  Accounting on Microcomputers  2.0 Units
Formerly B AD 4.
A course in basic accounting procedures using IBM - PC microcomputers to complete all accounting procedures. General ledger, accounts payable, accounts receivable, depreciation, and payroll will be covered. Three lecture, three laboratory hours for nine weeks. CSU. Offered Fall, Spring. (No prerequisite)

BAD 4B  Accounting on Microcomputers  2.0 Units
This course is intended to be a continuation and expansion on accounting procedures covered in B AD 4A. Topics covered include billing, purchasing, product assembly, inventory control, payroll, taxation, and reporting and graphics presentations. Students successfully completing both B AD 4A and 4B should be fully qualified to take full control of any computerized accounting program used by a small business. One and one half hour lecture, one and one half hour laboratory per week. CSU. (No prerequisite)

BAD 5  Managerial Finance  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 lecture hours per week. CSU. Offered Spring. (No prerequisite)

BAD 6  Personnel Management  3.0 Units
A course designed to acquaint the student with the important functions performed by the human resource manager in a modern, dynamic business firm. Functions such as staff requirements and recruitment, staff training and development, staff supervision and evaluation, management-labor relations, and compensation management will be presented. The increasing importance of human relations to the firm’s production will be emphasized. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

BAD 7  Business Management  3.0 Units
For the student who has decided upon a career in business, government, or educational management, this introductory course in the concepts of management will provide a valuable introduction to a successful career. The course is designed for the managerial candidate or for the individual who has worked but not had formal training in business management. It is intended to provide essential skills in planning and organizing, staffing and directing, controlling, decision making, motivation, communication, and the application of management principles to the business organization. Three lecture hours per week. CSU. Offered Fall, Spring, Summer. (No prerequisite)

BAD 8  Introduction to Public Administration  3.0 Units
An introduction to the study of public administration including a survey of the major functions, i.e., policy making, personnel administration, budgeting, administrative responsibility. Three lecture hours per week. CSU. Offered Fall. (No prerequisite)

BAD 9  Introduction to Marketing  3.0 Units
A survey of the principles of marketing as evolving from the marketing concept. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

BAD 10  Retailing  3.0 Units
An introductory course in retail management. Field trips may be included. Three lecture hours per week. CSU. Offered Spring. (No prerequisite)

BAD 11  Sales  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)

BAD 12  Human Relations in Business  3.0 Units
A study of human behavior in business organizations and motivation of persons to develop teamwork which effectively fulfills their needs and achieves organizational objectives. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

BAD 13  Legal Environment of Business (CAN BUS 8)  3.0 Units
Formerly Business Law I
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, 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)

BAD 14  Business Law  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)

BAD 15  Introduction to Business Organizations  3.0 Units
Business is dynamic and constantly changing. This course is designed to introduce the student to contemporary issues and principles of business. The business functions of management, marketing, accounting and finance presented along with global dimensions of business, the various forms of business ownership, teamwork, securities, ethics and social responsibility, and economic challenges facing the United States. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite)
B AD 22 Small Business Management 3.0 Units
A comprehensive introduction to the management techniques used by small businesses in the free enterprise system. Beginning with basic characteristics of entrepreneurship, proceeding to product ideas and evaluation, covering start-up, structuring and financing, culminating with the student developing a business plan for a planned or existing small business. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

B AD 38 Cooperative Education
See Cooperative Education listing (1-8 units).

B AD 42 Business Mathematics 3.0 Units
Designed to give the student understanding and practice in the basic mathematical principles and techniques related to the theory of buying and pricing of merchandise, payment of invoices, compensation, interest, amortization, and capitalized costs. Three lecture hours per week. CSU. Offered Fall, Spring, Summer. (No prerequisite)

B AD 44 Business Communications 3.0 Units
Analysis, evaluation, revision of business letters, memoranda, reports and other correspondence. Application of the 3K3 writing process to business correspondence. An introduction to a writer's legal and ethical responsibilities. Three lecture hours per week. CSU. Offered Fall, Spring, Summer. (No prerequisite)

B AD 48 Special Topics
See Special Topics listing (Variable units).

B AD 49 Independent Study
See Independent Study listing (1-3 units).

B AD 51A Applied Accounting I 3.0 Units
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, Summer. (No prerequisite)

B AD 51B Applied Accounting II 3.0 Units
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 Spring. (No prerequisite)

B AD 52 Elements of Supervision 3.0 Units
Responsibilities of a supervisor in business, industrial, or governmental organization. Three lecture hours per week. Offered Spring. (No prerequisite)

B AD 53 Management for Supervisors 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)

B AD 55 Microcomputerized Office Management 2.0 Units
A course designed to upgrade today's manual office skills to the computerized office of the future. One lecture, three laboratory hours per week. (No prerequisite)

B AD 60 Introduction to International Business 3.0 Units
A comprehensive overview of international business designed to provide a global perspective on international trade, including foreign investments, impact of financial markets, international marketing, and the operation of multinational corporations. Three lecture hours per week. (No prerequisite)

B AD 70 Individual Income and Payroll Taxes 1A 3.0 Units
An introduction to the practical and theoretical concepts of both the federal and state income tax systems, limited to the individual filing. Three lecture hours per week. (No prerequisite)

B AD 71 Individual Income and Payroll Taxes 1B 3.0 Units
An advanced study of the practical and theoretical concepts of both the federal and state income tax systems. Three lecture hours per week. (No prerequisite)

B AD 72 Internal Revenue Service Procedures and Taxpayer Bill of Rights 3.0 Units
Presentation of the Internal Revenue Service and Franchise Tax Board procedures. Explanation of the proper response and options to the Federal and State tax authority. Three lecture hours per week. (No prerequisite)

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 1 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 3A 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 1 or ability to type 20 gross words per minute) This course may be taken four times.

**BET 3B** 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 the appearance of text, search and replace text, use headers and footers, page numbering, footnotes and endnotes. CSU. (Prerequisite: BET 3B) This course may be taken four times.

**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 3B) This course may be taken four times.

**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 3C) This course may be taken four times.

**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: BET 1 or ability to type 20 gross words per minute) This course may be taken three times.

**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. 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 4A) This course may be taken three times.

**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 4B) This course may be taken three times.

**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 4C) This course may be taken three times.

**BET 7** 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 8** 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 7) This course may be taken three times.

**BET 9** 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 8) This course may be taken three times.

**BET 11A** 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 11B** 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 11A) This course may be taken three times.

**BET 11C** 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 11B) This course may be taken three times.

**BET 12A** Spreadsheet: Excel for Windows A 1.0 Unit
This first unit is a self-paced, individualized introduction to spreadsheet operations for creating, editing, formatting and placing graphics in worksheets. Extensive hands-on practice is provided at individual workstations. CSU. (No prerequisite) This course may be taken three times.

**BET 12B** Spreadsheet Excel for Windows B 1.0 Unit
This second unit is a self-paced, individualized introduction to the commands and functions for customizing the worksheet, working with the Tool Bar, and enhancing worksheet charts or graphs. Extensive hands-on practice is provided at individual workstations. CSU. (Prerequisite: BET 12A) This course may be taken three times.
BET 12C  Spreadsheet Excel for Windows C  1.0 Unit
This third unit is a self-paced, individualized introduction to macro usage and development, including concepts used to create charts and exploration of Excel's database. Extensive hands-on practice is provided at individual workstations. CSU. (Prerequisite: BET 12B) This course may be taken three times.

BET 14A  Spreadsheet: Quattro Pro A  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 14B  Spreadsheet Quattro Pro B  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 14A) This course may be taken three times.

BET 14C  Spreadsheet: Quattro Pro C  1.0 Unit
This third unit covers worksheet planning, importing, exporting, macro facilities, graphing, and database management. CSU. (Prerequisite: BET 14B) This course may be taken three times.

BET 17A  Database: Paradox A  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 17B  Database: Paradox B  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 17A) This course may be taken three times.

BET 17C  Database: Paradox C  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 17B) This course may be taken three times.

BET 18A  Database: Access A  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 18B  Database: Access B  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 22  Intermediate Keyboarding/Typing A/B/C  3.0 Units
A continuation of individualized modules to fit the needs of each student as he/she develops more skill in documentation preparation (letters, tables, and reports). Also includes the preparation of correspondence with special features, advanced manuscripts, outlines, resumes, applications, and business forms on the typewriter and/or the microcomputer. Emphasis is on achieving a straight-copy speed of 45-60 gross words per minute with a predetermined error limit. Also offered in separate modules. CSU. Offered Fall, Spring, Summer. (Prerequisite: Successful completion of 3 units of Beginning Keyboarding/Typing or Word Processing or the ability to type 40 gross words a minute and prepare simple documents)

BET 22A  Intermediate Word Processing/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 23W. 1, 2, 3 or BET 2A, B, C, D or BET 3A, B, C and the ability to type 40 gross words per minute)
BET 23T Machine Transcription 3.0 Units
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 3A or 4A.) This course may be taken three times.

BET 24 Records Management with 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 25 Secretarial Procedures 3.0 Units
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 21 or ability to type 30 gross wpm and type basic business documents)

BET 27 Expository Writing on Microcomputer 1.0 Unit
Students use the microcomputer for expository writing and learn practical applications of word processing by preparing assignments required in English 3A. One lecture hour per week. CSU. (No prerequisite)

BET 30 WordPerfect Advanced Features 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: BET 2 or equivalent such as high school or on-the-job experience) This course may be taken three times.

BET 31 Presentation Software: 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 32 Presentation Software: PowerPoint II 1.0 Unit
Students will learn advanced PowerPoint features such as creating graphs, tables, and slide show effects. CSU. (Prerequisite: BET 31) This course may be taken four times.

BET 34 Condensed Word Processing 1.0 Unit
Formerly Condensed Word Processing Using WordStar. Introduction to using the microcomputer to gain practical experience in word processing by completing personal projects. CSU. Offered Fall, Spring. (No prerequisite)

BET 35 Desktop Publishing: PageMaker 2.0 Units
Introduction to page production methods and practices involving text and graphics. Emphasis is on layout and typographical principles to create typeset, camera-ready business publications. Hands-on experience with scanning software, desktop color separation procedures and electronic publishing using the PC computer system. Three hours lecture, three hours laboratory per week for nine weeks. CSU. (No prerequisite)

BET 36 Career Applications for Word Processing 3.0 Units
This course is designed for the student who has already learned word processing functions and formatting principles. Students will learn terminology used in a variety of business careers by applying formatting and keyboarding skills to complex professional documents including letters, memos, forms, tables and reports. CSU. (Prerequisite: BET 68A and BET 3C or BET 4C)

BET 38 Cooperative Education
See Cooperative Education listing (1-8 units).

BET 39A Advanced Word Processing/Typing - Applications A 1.0 Unit
Application of word processing/typing skills to develop and format complex and specialized documents. CSU. (Prerequisite: Successful completion of BET 22A, B, C, and ability to type 50 gross words per minute. BET 68A is recommended)

BET 39B Advanced Word Processing/Typing - Applications B 1.0 Unit
Application of word processing/typing skills in developing and formatting complex and specialized documents. CSU. (Prerequisite: Successful completion of BET 39A. BET 68 is recommended)

BET 39C Advanced Word Processing/Typing - Applications C 1.0 Unit
Application of word processing/typing skills in developing and formatting complex and specialized documents. CSU. (Prerequisite: Successful completion of BET 39B. BET 68A is recommended)

BET 41A Operating System: Windows A 1.0 Unit
This first unit is an introduction to Windows, A Graphical User Interface environment. Extensive hands-on practice at individual workstations will provide students with the fundamental commands and features of Windows. CSU. (No prerequisite.) This course may be taken three times.

BET 41B Operating System: Windows B 1.0 Unit
This second unit covers more extensive hands-on practice with additional Windows commands and use of icons. CSU. (Prerequisite: BET 41A) This course may be taken three times.

BET 41C Operating System: Windows C 1.0 Unit
This third unit includes features using program manager and Windows interface. CSU. (Prerequisite: BET 41B) This course may be taken three times.
BET 42  Office Technologies and Procedures  3.0 Units
Students will learn practical application of current automated office procedures, duties, and human relations. Specific topics include telephone, electronic mail, Internet activities, data entry, reference resources, job seeking, mail and shipping services and procedures, office relations, office etiquette and dress, time management, travel arrangements, meetings, minutes, and office equipment. Development of critical thinking skills and decision-making skills throughout the course. Three lecture hours per week. CSU. (Prerequisite: BET 3A or BET 4A, typing skill and competency with a word processing program to format and edit basic business documents.)

BET 43  Business English  3.0 Units
A technical course for Education Technologies majors designed to create proficiency in written business communication. Includes a comprehensive review of the basic elements for written communication with special emphasis on the basic practices of business, the role and function of business communication as related to these practices, and essential elements of business communication problems and their solutions. Three lecture hours per week. CSU. (No prerequisite)

BET 45  Communications for Business  3.0 Units
A course designed for Business Office Technologies to create proficiency in the mechanics of writing, reading, and critically analyzing various types of business correspondence and technical reports. Course includes a review of grammar, reading, proofreading, and editing; and analysis of writing styles in business correspondence and report format. Principles of communication psychology as it applies to human relations will be reviewed in solving business communications problems. Three lecture hours per week. CSU. (Prerequisite: Successful completion of BET 43 or English 50 and one unit of BET 3A or 4A.)

BET 46  Operating System: Beginning DOS A/B/C  3.0 Units
Introduction to the MS DOS operating system functions and commands, disk and file management, and utilities used in various applications of routine computer functions. Two hours lecture, three hours laboratory per week. (No prerequisite) This course may be taken two times.

BET 46A  Operating System: Beginning DOS A  1.0 Unit
This first unit is an introduction to PC/MS DOS operating systems' functions and commands including disk and file management for routine computer functions. This course assumes no prior computer experience. (No prerequisite) This course may be taken three times.

BET 46B  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 46A) This course may be taken three times.

BET 46C  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 46B) This course may be taken three times.

BET 47  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 46)

BET 48  Special Topics
See Special Topics listing (Variable units).

BET 49  Independent Study
See Independent Study listing (1-3 units).

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 3A or BET 4A) 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 1 or ability to type 20 gross words per minute) This course may be taken three times.
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<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>BUS 30D</td>
<td>Escrow I, Principles (Basic)</td>
<td>3.0</td>
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<td>BUS 31D</td>
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<td>BUS 32D</td>
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<td>BUS 33D</td>
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<td>BUS 34D</td>
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**BUSINESS ESCROW**

**BUS ESC 38** Cooperative Education  
See Cooperative Education listing (1-8 units).

**BUS ESC 41** Escrow I, Principles (Basic)  3.0 Units  
Methods and techniques of escrow procedures for various types of business transactions with emphasis on real estate, including the legal and ethical responsibilities for persons engaged in escrow work. Three lecture hours per week. CSU. Offered Fall. (No prerequisite)

**BUS ESC 42** Escrow II, Principles (Advanced)  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 Salesmen’s license. Three lecture hours per week. CSU. Offered Spring. (No prerequisite)

**BUS ESC 43** Escrow III, Case Problems  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)

**BUS ESC 48** Special Topics  
See Special Topics listing (Variable units).

**BUS ESC 49** Independent Study  
See Independent Study listing (1-3 units).

**BUSINESS REAL ESTATE**

“These classes are open to all students with an interest in Real Estate. They are not just for Licensees.”
BUS RE 35  Taxes and Real Estate Investment  3.0 Units
Introductory real estate investment course discusses ownership interests, sources of financing, tax aspects of real estate ownership, market and cash flow analysis for income property, land investing, creative financing, and the laws dealing with foreclosed property investing. Three lecture hours per week. CSU. (No prerequisite)

BUS RE 36  Real Estate Finance  3.0 Units
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. Offered Spring. (No prerequisite)

BUS RE 37  Real Estate Office Administration  3.0 Units
Designed for practicing real estate brokers, managers, or salespersons who plan to open their own office. This course emphasizes factors for success in real estate brokerage. Topics discussed include office location, organization, marketing, accounting, finance, property management, development, and professional relations. Elective for the Real Estate Broker's license. Three lecture hours per week. CSU. (No prerequisite)

BUS RE 38  Cooperative Education
See Cooperative Education listing (1-8 units).

BUS RE 39  Real Estate Economics  3.0 Units
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)

BUS RE 40  Real Property Management  3.0 Units
Professional approach to the principles and practices of managing income properties. Topics include leases, rent schedules, collections, evictions, budgets, purchasing, market economics, taxation, maintenance, and record keeping. Elective for the Real Estate Broker’s license. Meets the 18-month, post licensing, educational requirements for the California Real Estate Salesman's license. Three lecture hours per week. CSU. Offered Fall. (No prerequisite)

BUS RE 41  The Calculator's Use and Application in Real Estate  3.0 Units
The student will learn to use the various financial, mathematical, statistical and other functions provided of the H.P.12C calculator. Includes simple interest, compound interest, amortization functions, depreciation calculations, discounted cash flow analysis, and step-by-step solutions to specialized problems in real estate, lending, investment analysis and savings. Three lecture hours per week. CSU. Offered Fall, Spring. (Prerequisite: High school algebra or equivalent; student must have own H.P.12C calculator) This course may be taken two times.

BUS RE 42  Real Estate Marketing  3.0 Units
A study of principles and processes involved in professionally marketing real estate. Course content includes: communication and marketing skills as practiced within the real estate industry, real estate advertising, target marketing, development of a marketing plan, product knowledge, people knowledge, qualifying both the buyer and the seller, negotiating and financing skills, and closing the escrow. Development of marketing tools including signs, maps, mail-outs, brochures, referrals, forms and media campaigns will also be covered. Three lecture hours per week. CSU (No prerequisite)

BUS RE 48  Special Topics
See Special Topics listing (Variable units).

BUS RE 51  Fundamentals of Mortgage Banking  3.0 Units
This course provides the student with the broad technical knowledge of both the state and federal laws governing the mortgage loan brokerage business and other lending practices in the state of California. General topics include disclosure statements, RESPA, fair lending practices, trust fund handling, hard money lenders, third party originators, reporting requirements, and securities in the lending industry. Satisfies one of the course requirements for a non-conditional real estate salesperson’s license or for the real estate broker’s examination. Three lecture hours per week. Elective for Broker’s License. (No prerequisite)

BUS RE 52  Real Estate Mathematics  3.0 Units
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)

BUS RE 53  Real Estate Development  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)

BUS RE 49  Independent Study
See Independent Study listing (1-3 units).

BUS RE 50  Career Development Growing on the Job  1.0 Unit
Course content will include: understanding your personality and interpersonal relationships, being good at being new, and staying healthy. One lecture hour per week. Offered Fall, Spring. (No prerequisite)
CAR DEV 53  Career Development/Integrating Work and Life 1.0 Unit
Course content will include: planning your fiscal fitness program, looking forward to change, and mapping your lifeline. One lecture hour per week. Offered Fall, Spring. (No prerequisite)

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

CAR DEV 55  Career Development/Successful Job Hunt 0.5 Unit
Student 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)

CAR DEV 56  Career Development/Resume Writing and Job Applications 0.5 Unit
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.

CAR DEV 57  Career Development/Employment Interviews 0.5 Unit
The student will learn techniques for the interview process, the importance of physical appearance, body language, and questions and answers for the interview. Offered Fall, Spring (No prerequisite. Credit/No Credit) This course may be taken four times.

CAR DEV 60  Workforce Preparedness/Decision-Making 0.5 Unit
This course is designed to prepare students entering the workforce with "life" skills - assessing values, setting goals, and developing action plans - skills that employers look for. The course also examines how to maintain a healthy family life while pursuing a successful career. (No prerequisite.)

CAR DEV 61  Workforce Preparedness/Getting the Job 0.5 Unit
This course is designed to help students achieve success in getting jobs. The goal of this course is to provide an understanding of the employment process. Skills taught will help students obtain employment. In addition, the course examines time and stress management skills, which assists in a successful balance between work and personal life. (No prerequisite.)

CAR DEV 62  Workforce Preparedness/Performing on the Job 0.5 Unit
This course is designed to help students achieve success in job performance. The course covers personal appearance while looking for work as well as after employment. It makes recommendations for acquiring work clothing while on a limited income. The course also focuses on work related financial issues including paying bills, obtaining and maintaining credit, saving money, budgeting, shopping, gaining a higher standard of living, transportation needs, lodging, and retirement. (No prerequisite.)

CAR DEV 63  Workforce Preparedness/Keeping the Job 0.5 Unit
This course is designed to help students achieve success in keeping a job. The course examines factors that make a good worker, such as attitude, commitment, communication, and coping. Workers rights and employer expectations are also covered. Additionally, the course deals with barriers to maintaining employment (including mental health and substance abuse) and other appropriate workforce issues. (No prerequisite.)

CHEMISTRY

CHEM 1A  General Chemistry (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. (Prerequisite: High school chemistry, or CHEM 10, and working knowledge of MATH 3)

CHEM 1B  General Chemistry (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 1A)

CHEM 5  Quantitative Analysis (CAN CHEM 12) 4.0 Units
Quantitative, gravimetric, volumetric, and instrumental methods of analysis. Stoichiometric calculations and applications of principles of chemical equilibrium to analytical problems. Laboratory accuracy required. Three lecture, three laboratory hours per week. CSU, UC. Offered Summer. (Prerequisite: CHEM 10 or year course in General Chemistry)

CHEM 6  Introductory Chemistry II: Organic Chemistry 4.0 Units
An introduction to fundamental concepts of Organic Chemistry for students entering professional health careers. Emphasis is on chemical bonding, structure, nomenclature, chemical properties, and reaction mechanisms of the major organic functional groups emphasizing their relationships to biological systems. Three lecture, three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall of even numbered years. (Prerequisite: CHEM 10 or equivalent)

CHEM 7  Introductory Chemistry III: Biochemistry 4.0 Units
An introduction to fundamental concepts of biochemical compounds for students entering professional health careers. Emphasis is on the structure, chemical properties, and physiological roles of carbohydrates, lipids, proteins, and nucleic acids. Three lecture, three laboratory hours per week. CSU, UC. Offered Spring of odd numbered years. (Prerequisite: CHEM 6 or equivalent)
CHEM 8A Organic Chemistry 5.0 Units
The chemistry of aliphatic and aromatic hydrocarbons with emphasis on material fundamental to biochemistry. Modern concepts of chemical bonding, molecular reactions, structure, nomenclature, principles of stereo-chemistry, mechanisms, and synthetic pathways. Laboratory techniques include isolation, separation, purification, spectroscopy, and chromatographic analysis of organic compounds. Three lecture, six laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall of odd numbered years. (Prerequisite: CHEM 1B)

CHEM 8B 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 of even numbered years. (Prerequisite: CHEM 8A)

CHEM 10 Introductory Chemistry (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 H10 Honors Introductory Chemistry (CAN CHEM 6) 5.0 Units
A chemistry course for the well-prepared student. In addition to the concepts in non-honors Chemistry 10, the student will be expected to read and analyze original papers and perform and write up research designed to amplify analytical skills. Three lecture, six laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring. (No prerequisite)

CHEM 14 Environmental Chemistry 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 28 Special Topics
See Special Topics listing (Variable units).

CHEM 29 Independent Study
See Independent Study listing (1-3 units).

CHEM 38 Cooperative Education
See Cooperative Education listing (1-8 units).

CHEM 50 Forensic Chemistry 5.0 Units
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 51 Nutrition 1A 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 school programs, hospitals, and care centers or those acquiring degrees in allied health, child development, or restaurant management, as well as interested homemakers. It is a certificated course through the National Restaurant Association’s Educational Foundation PRO Management Development Program which is nationally recognized throughout the food service industry. Selected nutrition topics include personalized and vegetarian nutrition, menu planning, and marketing options, chemistry of nutrition, as well as specific personal health issues. (No prerequisite). See cross listing for RES MGT 51. This course may be taken two times.

CHEM 55 Introductory Computational Chemistry for the Biological, Environmental and Physical Sciences 4.0 Units
This course is designed to give students the basic investigative skills of computational Chemistry and the ability to use these techniques to build mathematical models in the Biological, Chemical, Environmental and Physical sciences. The fundamental computational techniques will include ab initio and 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 101 Summer Youth Science Academy 1.0 Unit
Students are oriented to the resources available on a community college campus, tested for preferred learning styles and given accommodating strategies for academic success. Subsequently they participate in a science curriculum of astronomy, biology, chemistry, computer science, electronics and physics that emphasizes professional and technical vocations, and take field trips to industrial sites engaged in science and technology. This course will not apply to the Associate Degree. (No prerequisite) This course may be taken two times.
## CHILD DEVELOPMENT

**CLDDEV 6  Child, Family and Community  3.0 Units**  
The scientific study of societal institutions which socialize the child, such as the family, 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. Offered Spring. (Prerequisite: Completion of Child Development 27A)

**CLDDEV 10  Introduction to Early Childhood Education  3.0 Units**  
A comprehensive overview of all aspects of early childhood education. Factors influencing the care and education of children from birth through age eight including developmental stages, providing for developmental needs through curriculum, protecting children’s health and safety, fostering development in group settings, and teaching through play will be addressed. Students will also explore current programs and careers involving young children. Three lecture hours per week. CSU. UC. (No prerequisite)

**CLDDEV 15  Family Day Care Provider  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. CSU. Three lecture hours per week. Offered Spring in odd-numbered years. (No prerequisite)

**CLDDEV 20  The Mentor Teacher /Adult Supervision  2.0 Units**  
A study of the methods and principles of supervising student teachers/adults in early childhood programs. Emphasis on the role of experienced classroom teachers/supervisors who function as Mentors to teachers while simultaneously addressing the needs of children, parents and other staff. Four lectures per week for nine weeks. CSU. Offered Fall. (No prerequisite)

**CLDDEV 27A  Directed Teaching in Children’s Programs I  4.0 Units**  
This course provides supervised experience working with pre-kindergarten children. Students will be placed at the Child Development Center or with a Mentor Teacher for their practicum. Emphasis is placed on developing skills and techniques for working with young children, interpersonal relations with staff and parents with self-evaluation in the teaching role. A health statement and T.B. clearance are required to work with children in centers. Two lecture, six laboratory hours per week. CSU. Offered Fall. (No prerequisite)

**CLDDEV 27B  Directed Teaching in Children’s Programs II  4.0 Units**  
This course provides supervised experience working with pre-kindergarten children. Students will be placed at the Child Development Center or with a Mentor Teacher for their practicum. Students will focus on the design and implementation of suit-
CLDDEV 398 Administration of Children’s Programs II 3.0 Units
This course explores the human relations aspect of administering children’s programs. The emphasis will be placed on integration of early childhood philosophy into management practices, business/management skills, community relations, professional responsibilities related to child advocacy, labor relations and staff management. Multi-cultural awareness and implementation, mainstreaming issues and parent involvement will be included. This course is designed to fulfill three of the six semester units of administration required for the Children's Center Supervisor Permit. Three lecture hours per week. CSU. Offered Spring in odd-numbered years. (Prerequisite: Completion of the State Department of Health required core courses (CLDDEV 6 and CLDDEV 46) or equivalent. It is recommended that students currently enrolled in this course be working in the field.)

CLDDEV 41 Basics of School-Age Child Care 3.0 Units
An introduction to appropriate practices in school-aged programs and curriculum based upon knowledge of the social, emotional, physical, and cognitive development of the child ages six to twelve. Exploration of curriculum units that include creative art, music, and literature. Three lecture hours per week. CSU. (No prerequisite)

CLDDEV 42 Child Health, Safety, and Nutrition 3.0 Units
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)

CLDDEV 43 Introduction to the High/Scope Curriculum 3.0 Units
Provides students with a working knowledge of the High/Scope curriculum model. This model stresses a cognitively-oriented 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)

CLDDEV 44 Math and Science Experiences for Young Children 2.0 Units
This class will focus on the preschool child’s acquisition of science and mathematical concepts. Emphasis will be on introducing students to developmentally appropriate activities and practices which will foster development in these areas. This course will also focus on the teacher’s (adult) role in establishing an environment rich in opportunities for self-directed activities and will assist teachers in developing science and math materials and activities. Four lecture hours per week for nine weeks. CSU. Offered Spring. (No prerequisite)

CLDDEV 45 Music/Movement Experiences for Young Children 2.0 Units
This course will introduce students to gross motor development in the early years and provide instruction on how to facilitate this development with movement activities. This course will also focus on musical activities and experiences through which children develop appropriate skills, concepts and attitudes. Students will select, develop and present music/movement activities leading to a comprehensive file of classroom activities to be implemented in one's own early childhood setting. Four lecture hours per week for nine weeks. CSU. Offered Fall. (No prerequisite)

CLDDEV 46 Child Growth and Development 3.0 Units
A study of the child from conception through adolescence; cognitive, physical and social emotional development. Guidance for the developmental stages will be included. Three lecture hours per week. CSU, UC. (No prerequisite)

CLDDEV 47 Music Circle-Time Activities 1.0 Unit
This course is designed to provide the student with knowledge and methods needed to conduct circle-time activities in a child care setting. This course will also focus on development, implementation and evaluation of appropriate musical activities for a diverse population of young children. Three lecture hours per week for 6 weeks. CSU (No prerequisite)

CLDDEV 48 Special Topics
See Special Topics listing (Variable units).

CLDDEV 49 Independent Study
See Independent Study listing (1-3 units).

CLDDEV 50 Infant Care and Education 3.0 Units
A study of the physical, perceptual, socioemotional, and intellectual development and behavior of the infant from prenatal to toddler. Emphasis will be on infant education and quality care. Three lecture hours per week. (No prerequisite)

CLDDEV 101 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)

CLDDEV 102 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)

CLDDEV 103 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)
COMPUTER INFORMATION SYSTEMS

CIS 1  Computer Literacy (CAN CSCI 2)  4.0 Units
(Formerly Introduction to Computer Information Systems)
This course 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 2  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 3  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 4  Object-oriented Software Design 3.0 Units
This is a first course in the object-oriented modeling and design, a new way of thinking about problems using models organized around real-world concepts. The fundamental object-oriented construct is the object, which combines both data structure and behavior in a single entity. Object-oriented models are useful for understanding complex problems, communicating with application experts, modeling enterprises, preparing documentation, and designing programs and databases. This course is a prerequisite to all object-oriented programming language courses for it provides a requisite baseline working knowledge of unique object-oriented concepts and structure such as classes, objects and methods, encapsulation, inheritance, polymorphism and message abstraction, and static virtual methods. Three lecture hours per week. CSU. (No prerequisite)

CIS 5 Introduction to Systems Analysis 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 8 Assembly Language Programming (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 10 Principles of Basic Programming (CAN CSCI 6) 3.0 Units
Structured programming techniques are taught using an extended version of the BASIC programming language. Students will be required to use the six steps in preparing programs. Business, mathematics, and science projects will require problem definition, screen design, flowcharting, report writing, program development using all the reserved words for input/output, data manipulation, logical and arithmetic operations, sequential and direct access processing. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: CIS 1 and CIS 18.1 or equivalent. CIS 53 recommended)

CIS 12A Fundamentals of COBOL Programming (CAN CSCI 8) 3.0 Units
A comprehensive study and practice in writing interactive computer programs using the ANSI COBOL programming language for microcomputers. Topics include input-output, arithmetic, logic, and data manipulations. The student will be required to use the six steps in preparing structured COBOL programs. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall. (Prerequisite: CIS 1 and CIS 18.1 or CIS 18 or CIS 10 or equivalent. CIS 64 recommended)

CIS 13 Advanced VB Programming Module A: Advanced Topics 4.0 Units
This course will cover the following topics: Windows common controls, multiple forms with a MDI, object-oriented programming in VB, creating Active-X controls, Active-X documents. Three lecture, three laboratory hours per week. CSU (Prerequisite: CIS 33. Recommended: CIS 4)

CIS 14 Advanced VB Programming Module B: Database Programming 4.0 Units
This course teaches students how to use Visual Basic to develop software applications for databases. The course will cover database applications for Microsoft Access and client/server applications with both Microsoft Access and Microsoft SQL Server. The course also covers topics on Open Database Connectivity (ODBC) which allows the client application to access any kind of back-end data source. Three lecture, three laboratory hours per week. CSU (Prerequisites: CIS 33 and CIS 22, or equivalent)

CIS 15 Advanced VB Programming Module C: Web Programming 4.0 Units
The following topics will be covered in this course: a brief review of client-side scripting and related issues, server-side scripting with Active Server Pages, server-side programming with Visual Basic, and Web database access with Visual Basic. Three lecture, three laboratory hours per week. (Prerequisites: CIS 33 and CIS 42, or equivalent. Recommended: CIS 34A and B)

CIS 16 FORTRAN Programming (CAN CSCI 4) 3.0 Units
Write and develop scientific and business applications using the latest ANSI FORTRAN compiler. Topics include input-output, single, double, floating point precision arithmetic, transfer operations, “IF,” “DO LOOP,” and “GO TO” statements, one and two dimensional arrays with subscripts. Library routines, linkage to the DOS system, and program segmentation will be discussed. Two lecture, three laboratory hours per week. CSU, UC. (Prerequisites: CIS 1, CIS 18.1, and MATH 3, or equivalent. CIS 64 recommended)

CIS 18.1 Introduction to Computer Programming: PASCAL (CAN CSCI 12 [Requires completion of CIS 18.1 and CIS 18L]) 3.0 Units
Formerly CIS 18. A simultaneous study of the language-independent fundamentals of computer programming and an introduction to PASCAL programming language. Emphasis is placed on the development life cycle, programming structures, algorithm development and analysis, coding, debugging, compilation, system libraries. The coverage of PASCAL includes data types, operators, expressions, functions, memory allocation, and pointers. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: CIS 1 and MATH 3 or equivalent and concurrent enrollment in CIS 18L)

CIS 18L PASCAL Structured Practicum (CAN CSCI 12 [Requires completion of CIS 18.1 and CIS 18L]) 1.0 Unit
This course provides “hands-on” laboratory experience for those students who are enrolled in CIS 18L. It provides a structured environment with an instructor during which a multitude of practical programming problems are presented for the student to solve using the PASCAL programming language. The problems are devised to coincide with the subject matter being covered in CIS 18.1 and fulfill an important role in the objectives of CIS 18.1. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: CIS 1, CIS 18.1 (CIS 18.1 may be taken concurrently))
CIS 19  C Language (CAN CSCI 16)  3.0 Units
The study of writing and executing C Language computer programs. Two lecture, three laboratory hours per week. CSU, UC. Offered Spring. (Prerequisite: CIS 1 and CIS 18.1, or equivalent. CIS 64 recommended)

CIS 22  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 23  Introduction to Operating Systems: UNIX  3.0 Units
This course is designed for those who require a knowledge of UNIX. It covers four major areas of operating systems: processes file systems, memory management, and input/ output. Topics include trade-offs associated with systems call versus library routines, multitasking, protection, communication protocols, multiuser environments, scheduling, real-time constraints, design issues, and data structures with their associated operations. Concepts underlying the UNIX operating system will be taught using the MINIX operating systems. Two lecture, three laboratory hours per week. CSU. (No prerequisite)

CIS 24  Fundamentals of Data Communications  2.0 Units
Formerly CS 63.
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. CU. (No prerequisite)

CIS 25  NetWare TCP/IP Administration  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 74 or equivalent)

CIS 26  NetWare 4 Advanced Administration  2.0 Units
Learn the advanced skills involved in the administration of NetWare networks, including improving the performance of your network and server, managing Novell Directory Services (NDS) partitioning and replication, time synchronization strategies, and integrating NetWare 4 and NetWare 3. It is one of seven courses needed for CNE certification. Three lecture, three laboratory hours per week for nine weeks. CSU. (CIS 74 or equivalent)

CIS 27  NetWare Installation and Configuration  2.0 Units
Learn all the different aspects of installing and configuring NetWare 4 by getting hands-on experience upgrading, migrating, and installing in various scenarios designed to simulate real world situations. This course is intended for those who wish to become NetWare administrators. It is one of seven courses needed for CNE certification. Three lecture, three laboratory hours per week for nine weeks. CSU. (Prerequisite: CIS 26)

CIS 31  Advanced Programming in PASCAL  4.0 Units
This course teaches advanced methodologies for problem analysis, program design and development in PASCAL. Topics covered include advanced data structures, standard and user-defined units, graphical interface, and object-oriented programming. Three lecture, three laboratory hours per week. CSU, UC. (Prerequisites: CIS 18.1 and CIS 18L or CIS 18 or equivalent. CIS 64 recommended)

CIS 32  Advanced Programming Concepts in C ++  4.0 Units
This course builds upon the concepts and skills learned in CIS 19. It discusses the differences between C and C++ and then it teaches those advanced data structures-pointers, lists, linked structures, and object-oriented programming concepts, etc., not taught in CIS 19. A major portion of the course is spent in learning OOP concepts and developing OOP programs in C++. Three lecture, three laboratory hours per week. CSU, UC. (Prerequisites: CIS 18.1, CIS 18L and CIS 19. CIS 64 recommended)

CIS 33  Visual Basic Programming  4.0 Units
Visual BASIC is an easy yet powerful tool for developing Windows applications. This course teaches students to program using Microsoft Visual BASIC. It teaches students to develop programs that are event-driven, capable of multitasking, and highly modularized, with Windows’ graphics user interface. Three lecture, three laboratory hours per week. CU. (No prerequisite. Recommended: students should have at least one programming course in Pascal, Basic, C, or Fortran, college algebra and computer math.)

CIS 34A  UNIX System Administration A  2.0 Units
UNIX system administrators are responsible for the operation of UNIX systems-the most common server platform on the Internet. Learn how to setup, manage, and maintain UNIX systems. Topics include: the role of the system administrator in an organization, UNIX variants, installation, booting and shutting down, backups, managing users. Two lecture, six laboratory hours per week for nine weeks. CSU. (Prerequisite: CIS 23 or equivalent)
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 34A and CIS 67)

CIS 35 Multimedia Presentations 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 36 Introduction to the Internet/WWW 2.0 Units
This course of instruction is designed for the student or savvy business person who 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 37 Introduction to HTML 2.0 Units
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 36 recommended)

CIS 38 Cooperative Education
See Cooperative Education listing (1-8 units).

CIS 39 Windows 95e 4.0 Units
Students will gain experience in navigating, configuring, optimizing, and customizing Windows 95e. Additional subjects which will be covered include Windows 95e networking, disk management, and using the Internet with Windows 95e applications. Three lecture, three laboratory hours per week. CSU. (No prerequisite)

CIS 40 Introduction to Operating Systems: Windows NT 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 1 or equivalent)

CIS 41 Windows NT Server Administration 4.0 Units
Covers administration of 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 40 or equivalent)

CIS 42 Client Side Scripting 4.0 Units
This course teaches students how to use one of the popular client-side scripting languages, such as VB Script, JavaScript, 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 37 or experience with HTML)

CIS 43 Database Management 4.0 Units
This course teaches students the concepts and implementation of a relational database model and object-oriented database model. This course covers the common languages used for data manipulation and information retrieval. The course is a practical approach to train students to analyze design and create databases for businesses and organizations. Three lecture, three laboratory hours per week. CSU (Prerequisite: CIS 22 or equivalent)

CIS 44A JAVA Programming A 2.0 Units
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 19 or CIS 18 or CIS 33 or equivalent. Recommended: CIS 4)

CIS 44B JAVA Programming B 2.0 Units
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 44A)

CIS 45A Structured Query Language A 2.0 Units
First module of manipulating data and databases using Structured Query Language (SQL). Topics include concepts of databases and SQL, creating and using databases, and performing queries. Two lecture, six laboratory hours per week for nine weeks. CSU. (Prerequisite: CIS 22)

CIS 46 UNIX System Administration B 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 34A and CIS 67)
CIS 45B  Structured Query Language B  2.0 Units
The second course teaching the management of data and databases using Structured Query Language (SQL). Topics include working with multiple tables, data normalization, views, indexes, dealing with data problems, and improving the performance of data manipulation. CSU. (Prerequisite: CIS 45A or equivalent)

CIS 46A  MS SQL Server Administration A  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 45B or equivalent)

CIS 46B  MS SQL Server Administration B  2.0 Units
The MS SQL Server is Microsoft's database server software. This course is the continuation of CIS 46A. It will review the basic features of SQL Server administration and then focus on advanced topics of using SQL Server such as performance and tuning. Two lecture, six laboratory hours per week for nine weeks. CSU. (Prerequisite: CIS 46A)

CIS 47A  Oracle A  2.0 Units
An introduction to using the Oracle relational database management system. This is the first of two modules. Topics include the structure, nature, and use of databases, working with database projects, dealing with the various data types, and querying databases. Two lecture, six laboratory hours per week for nine weeks. CSU. (Prerequisite: CIS 22. Recommended Preparation: CIS 43)

CIS 47B  Oracle B  2.0 Units
This second course on Oracle continues instruction on the Oracle relational database management system. Topics include using database administration tools, querying databases, keeping data safe and secure, and using databases in group environments. Two lecture, six laboratory hours per week for nine weeks. CSU. (Prerequisite: CIS 47A or equivalent)

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 60  PC Concepts for Novell Networking  3.0 Units
This course provides the student with the background knowledge necessary to successfully understand the materials presented in the Novell networking courses. The student will learn the basic concepts of a Novell local area network and the operation of MS-DOS, Windows 3.1 and Windows 9x. The student will understand how Microsoft operating systems create, organize and delete files and directories. The student will learn how to configure the operating systems to operate at high efficiency. The student will also be introduced to the basic concepts of local area networking. 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  2.0 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. One and one half hour lecture, one and one half laboratory hours per week. (No prerequisite)

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 74  NetWare 4 Administration  1.5 Units
This course knowledge and skills needed to perform NetWare 4 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 4 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 4 users and Netware administrators who are responsible for the day-to-day operational management of a NetWare 4 network. Three lecture hours per week for nine weeks. (No prerequisite)
CIS 76  Printing With NetWare  1.5 Units
This course is designed to teach the skills necessary to manage a NetWare printing environment effectively. The course begins with an overview of printing on a local level and then explores the NetWare workstation printing configuration, print job customization, print server and print queue configuration and management, and remote printer. Students are given hands-on experience with installing and configuring print servers, remote printers, emerging technology capabilities, and MS Windows printing. Additional topics include performance considerations, alternative enhanced network printing, installing and configuring ATPS, LDPI and LPR, troubleshooting common problems, and printing with Macintosh and UNIX systems. It is recommended for NetWare administrators and Certified NetWare Engineers and Enterprise Certified NetWare candidates. Three lecture hours per week for nine weeks. (No prerequisite)

CIS 77  NetWare Service and Support  2.0 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 hours per week for nine weeks. (No prerequisite)

COMPUTER INTEGRATED DESIGN AND GRAPHICS

CIDG 1A  Mechanical Drafting  3.0 Units
Students will explore the field of mechanical drafting through both computer and board drafting equipment. Course includes an introduction to the graphic language, 2-D and 3-D visualization, lettering, dimensioning, and sketching techniques. Projects include orthographic, isometric, oblique, perspective, and auxiliary view drawings. Two lecture hours, three laboratory hours per week. CSU. Offered Fall, Spring. (No prerequisite)

CIDG 1B  Advanced Mechanical Drafting  3.0 Units
Students will improve their mechanical drafting skills with advanced board and computer projects. Emphasis on the graphic description of threads, gears, cams, and working drawings. The course includes the proper application of tolerancing and the development of inking skills. Two lecture hours, three laboratory hours per week. CSU. Offered Spring. (No prerequisite)

CIDG 2A  Architectural Drafting - Residential  3.0 Units
Students will design and draft a complete set of drawings needed for constructing a single story residential home. Two lecture, three laboratory hours per week. CSU. Offered Fall. (No prerequisite)

CIDG 2B  Architectural Drafting - Commercial  3.0 Units
This course will focus on learning the principles and techniques involved in preparing a set of working drawings necessary to construct a commercial structure. The course will explore both frame and masonry construction. Two lecture, three laboratory hours per week. Offered Spring. CSU. (No prerequisite)

CIDG 3  Blueprint Reading for Construction  3.0 Units
A course designed to develop the skills necessary to interpret both residential and commercial construction drawings and blueprints. Three lecture hours per week. CSU. Offered Fall. (No prerequisite)

CIDG 4  Blueprint Reading for Industry  3.0 Units
A course designed to develop skills necessary to visualize and correctly interpret drawings and diagrams common to industry. Three lecture hours per week. CSU. Offered Spring. (No prerequisite)

CIDG 5  Architectural Design  3.0 Units
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. Offered Spring. (No prerequisite)

CIDG 6A  Two Dimensional AutoCAD  3.0 Units
An introduction to the AutoCAD program including all necessary basic commands required for computer aided drafting. Students will master drawing setup, common draw, edit and viewing commands and plotting. Lectures and exercises are designed to provide a comprehensive knowledge of all basic computer drafting functions. Two lecture hours, three laboratory hours per week. CSU. Offered Fall, Spring. (No prerequisite)

CIDG 6B  Advanced Two Dimensional AutoCAD  3.0 Units
This course will explore the more advanced two-dimensional features of the AutoCAD program including entity filters, attributes, external reference files, paper space, and slide presentations. Projects include sectional description of compound shapes and developments. Two lecture hours, three laboratory hours per week. CSU. Offered Fall, Spring. (No prerequisite)

CIDG 6C  Solids Modeling and Three Dimensional AutoCAD  3.0 Units
Students will explore the full range of three dimensional computer aided drafting with region and solid modeling and advanced AutoCAD projects and commands. Course includes computer aided drafting assignments in both the mechanical and architectural fields and projects dealing with revolutions and perspective views. Two lecture hours, three laboratory hours per week. CSU. Offered Fall, Spring. (No prerequisite)

CIDG 6D  Architectural Presentation  3.0 Units
A study of two common architectural presentation techniques: model making and illustration. Students will develop skill in correctly interpret drawings and diagrams common to industry. Three lecture hours per week. CSU. Offered Spring. (No prerequisite)

CIDG 7  Blueprint Reading for Industry  3.0 Units
A course designed to develop skills necessary to visualize and correctly interpret drawings and diagrams common to industry. Three lecture hours per week. CSU. Offered Spring. (No prerequisite)

CIDG 8  Blueprint Reading for Industry  3.0 Units
A course designed to develop skills necessary to visualize and correctly interpret drawings and diagrams common to industry. Three lecture hours per week. CSU. Offered Spring. (No prerequisite)
will include work with perspectives in pencil, watercolor, and airbrush. Two lecture, three laboratory hours per week. CSU. Offered Fall. (No prerequisite)

CIDG 11 Introduction to Drafting 2.0 Units 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. One and one half hours lecture, two laboratory hours per week. CSU. (No prerequisite)

CIDG 23 Customizing AutoCAD 3.0 Units This course is designed to provide the experienced AutoCAD user with the necessary knowledge and tools to successfully customize the AutoCAD program for specific applications. Two lecture, three laboratory hours per week. CSU. (No prerequisite) This course may be taken two times.

CIDG 24 Architectural Computer Aided Design 3.0 Units This course is designed to develop computer drafting skills necessary to produce residential and commercial working and presentation drawings. Design principles will be explored through the use of AutoCAD program. Two lecture, three laboratory hours per week. CSU. (Prerequisite: CIDG 6A. CIDG 2 recommended) This course may be taken two times.

CIDG 25A Computer Aided Mapping I 3.0 Units Introduction to computer aided mapping techniques commonly used by government and private industry. Course includes the hands-on application of the computer to develop track, parcel and utility maps, zoning overlays, and soil plans. Two lecture, three laboratory hours per week. CSU. (Prerequisite: CIDG 6A) This course may be taken two times.

CIDG 25B Computer Aided Mapping II 3.0 Units This course will cover more advanced computer aided mapping techniques commonly used in the industry of civil engineering. Course is designed to develop skills necessary to create grading plans, roadway design, cross sections, and perform mathematical principles of slopes, grades and earthwork calculation. Two lecture, three laboratory hours per week. CSU. (Prerequisite: CIDG 25A) This course may be taken two times.

CIDG 26A 3D Studio Max I 3.0 Units 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. (Prerequisite: CIDG 6A.) This course may be taken two times.

CIDG 26B 3D Studio Max II 3.0 Units 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 Material's 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 26A.) This course may be taken two times.

CIDG 26C 3D Studio Max III 3.0 Units 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, three laboratory hours per week. CSU. (Prerequisite: CIDG 26B) This course may be taken two times.

CIDG 27A Geographical Information System I (GIS) 3.0 Units This course will cover methods of constructing a Geographical Information System (GIS) used by utilities and governmental agencies. Course is designed to develop skills necessary to prepare intelligent maps with spatial databases for parcel mapping, planning, zoning, and facilities mapping using AutoCAD Map software. Two lecture hours, three laboratory hours per week. (No prerequisite)

CIDG 28 Cooperative Education See Cooperative Education listing (1-8 units).

CIDG 48 Special Topics See Special Topics listing (Variable units).

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. Offered Fall, Spring. (No prerequisite) This course may be taken four times.

CIDG 55 Computer Aided Design 1.5 Units This course is designed to develop the skills necessary and to direct the student in managing a typical industry related drafting computer system. Instruction in starting or improving a standard operating procedure manual (SOP), and developing efficient use of computer alternatives to aid in consistent production of drawing standards. Two lecture hours, three laboratory hours for nine weeks. (Prerequisite: CIDG 6A.) This course may be taken two times.
CONSTRUCTION AND MANUFACTURING TECHNOLOGY

CT 1 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. (No prerequisite.)

CT 3 Construction Management 3.0 Units
Principles of management as they specifically relate to the construction industry. This course explores the relationship and importance of proper planning, estimating, contracting, financing and building. Also covered are leadership and supervisory skills, employer/employee relationships and safety. Three lecture hours per week. CSU. Offered every 4th semester, Spring. (No prerequisite.)

CT 4 Construction Law 3.0 Units
This course introduces the basic issues and concepts of 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 5 Technical Sketching 3.0 Units
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 9 Construction Financing 3.0 Units
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 10 Building Codes and Zoning 3.0 Units
Use of the Uniform Building Code and the various related state and local ordinances for plan checking and building compliance. Course includes a basic understanding of building codes and zoning as they apply to the construction and inspection of residential and light commercial buildings. Three lecture hours per week. CSU. Offered every 4th semester, Fall or Summer. (No prerequisite)

CT 11 Uniform Building Code 1 3.0 Units
The first of a two part, in-depth study of the contents and applications of the Uniform Building Code and California amendments with 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 11B Uniform Building Code 2 3.0 Units
A continuing in-depth study of the Uniform Building Code and California amendments with 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 12 Uniform Mechanical Code 3.0 Units
This class is an in-depth study of the contents and applications of the Uniform Mechanical Code. Course covers the use of this code for plan checks and inspection of residential and commercial structures. Three lecture hours per week. CSU. Offered every 4th semester, Spring. (No prerequisite)

CT 13 Uniform Plumbing Code 3.0 Units
This class is an in-depth study of the contents and applications of the Uniform Plumbing Code. Course includes underground and above ground water, gas and air pipe installations for residential and commercial structures. Three lecture hours per week. CSU. Offered every 4th semester, Spring. (No prerequisite)

CT 14 National Electrical Code 3.0 Units
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 15 Office Procedures and Field Inspection 3.0 Units
Office organization, procedures and necessary paperwork pertinent to building and safety office management and inspection. Field inspection for completed building, zoning, health and safety ordinance applications. Course includes several field trips. Three lecture hours per week. CSU. Offered every 4th semester, Spring. (No prerequisite)

CT 16 Construction Safety 2.0 Units
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 20A Electrical Wiring 4.0 Units
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 20B  Commercial Wiring  4.0 Units
Learn the techniques necessary for commercial wiring. Size
collectors for motor, intermittent and continuous loads. Wire
for single and three phase services. Course includes wiring
techniques common to commercial applications, running cir-
cuits 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 cal-
culations, starters and over current protection devices. Two
lecture, six laboratory hours per week. (Prerequisite: CT 20)
This class may be taken three times.

CT 21  Finish Carpentry  4.0 Units
Course covers use of hand and machine woodworking tools
and techniques common to finish carpentry and cabinet mak-
ing. Students will develop skill in safe and efficient operation
of common tools, layout, cutting, assembly and finish of wood-
working projects. Two lecture, six laboratory hours per week.
CSU. Offered every 4th semester, Spring. (No prerequisite)

CT 22A  Heating and Air Conditioning  4.0 Units
This course provides instruction for layout, installation and
repair of common residential and light commercial heating and
air conditioning systems. Heating and air conditioning theory
and energy calculations will be treated in depth. Course also
includes use of solar energy for heating and cooling. Two lec-
ture, six laboratory hours per week. CSU. Offered Spring. (No prerequisite)

CT 22B  Commercial Refrigeration  4.0 Units
Explore the more complex commercial and industrial uses of
refrigeration, heating and air conditioning. Course covers in-
stallation and repair of the most common commercial refrig-
eration systems found in the food industry and industrial and
manufacturing environments. Also included are computer con-
trolled and central plant environmental systems, high and low
pressure chillers, cooling towers and air handlers. Two lecture,
six laboratory hours per week. (Prerequisite: CT 22) This class
may be taken three times.

CT 23  Surveying  4.0 Units
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 locat-
ing of points. Course includes surveying techniques common
to building and highway construction, general land survey-
ing, hydrographic surveys and photogrammetric mapping.
Two lecture, six laboratory hours per week. CSU. Offered every
4th semester, Spring. (No prerequisite.)

CT 24  Plumbing  4.0 Units
This course provides instruction for layout and installation of
residential and light commercial plumbing systems and fix-
tures. Rough and finish stages of plumbing will be introduced
and students will become familiar with reading plans and cal-
culating and constructing the plumbing system. Two lecture,
six laboratory hours per week. CSU. Offered every 4th semes-
ter, Fall. (No prerequisite)

CT 25  Concrete and Masonry Construction  4.0 Units
Course covers use of hand and machine tools and techniques
common to residential and light commercial concrete and ma-
sonry construction. Plan reading, layout, forming, pouring of
concrete, tilt-up and various finishing techniques will be in-
troduced. Course also includes construction with brick, stone,
cement block, and other masonry shapes. Two lecture, six labora-
atory hours per week. CSU. Offered Fall. (No prerequisite)

CT 27  Framing  4.0 Units
Course covers use of hand and machine tools and techniques
common to rough carpentry and residential and light commer-
cial framing. Students will develop skill in safe and efficient
operation of common tools, layout techniques, cutting and as-
sembly of wall, ceiling and roof framing, and installing sheath-
ing and insulation. Two lecture, six laboratory hours per week.
CSU. Offered every 4th semester, Fall. (No prerequisite)

CT 30  Advanced Technical Math  3.0 Units
This course will include the practical applications of algebra,
geometry and trigonometry. Class emphasis will be on the so-
solution of technical problems commonly found in the fields of
engineering, drafting, manufacturing and construction. Three
lecture hours per week. CSU. Offered every 4th semester, Fall. (No prerequisite)

CT 32  Construction Estimation  3.0 Units
Methods of estimating 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 com-
mercial construction. Three lecture hours per week. CSU. Of-
fered every 4th semester, Fall. (No prerequisite.)

CT 33  Precision Estimation  3.0 Units
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 par-
ticular estimating needs. Two lecture hours, plus additional
two hours weekly by arrangement. (No prerequisite.) This
course may be taken for a total of three times.

CT 38  Cooperative Education
See Cooperative Education listing (1-8 units).

CT 48  Special Topics
See Special Topics listing (Variable units).

CT 50  Technical Mathematics  3.0 Units
A review of basic arithmetic, fractions, decimals and percent-
ages. Introduction to basic algebra and trigonometry as they
apply to the manufacturing and construction trades. Three lec-
ture hours per week. Offered Fall. (No prerequisite)

CT 51  Materials of Construction  3.0 Units
A study of common materials used in residential and com-
mercial construction. Course includes use and limitations of
soil, paving materials, concrete, lumber, wall materials, roof-
ing, insulation, siding, sheet material, electrical and plumbing
materials and fixtures. This course will also explore the use of
steel, aluminum and plastics in modern construction. Three
lecture hours per week. Offered every 4th semester, Fall. (No prerequisite)
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, spreadsheet programs and introductory computer-aided drafting. Three lecture, three laboratory hours per week. CSU. Offered Fall. (No prerequisite)

CT 60A/B/C/D Construction Laboratory 1.0-4.0 Units
A laboratory class to provide additional skill development in the following areas: electrical wiring, finish carpentry, heating and air conditioning, framing, plumbing and concrete and masonry construction. Students will complete contract projects. Three laboratory hours per week for each unit of credit. Offered every semester. (No prerequisite)

CT 80 Exploring Brick and Block 1.5 Units
This course includes techniques used for construction of brick and block walls, decorative brick patios, planter edging and concrete slabs, curbs and walks. Class covers information on concrete and mortar mixes and proper forming, pouring and finishing of concrete slab and wall footings. Two lecture, three laboratory hours per week. (No prerequisite) This course may be taken for a total of four times.

CT 101 Assistant Property Management 1.0 Unit
This course 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 MANF 26B Advanced Woodworking 3.0 Units
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. (Prerequisite: CON TECH 90) This course may be taken for a total of four times.

CT MANF 27 Production Woodworking 3.0 Units
This course covers techniques common to production woodworking and includes design and construction of custom jigs, fixtures and templates for drill presses, routers, saws and lathes. Learn the artisan's techniques for wood joining, carving, turning and finishing by completing various wood projects. 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. (No prerequisite)

CT MANF 30A Mechanical Desktop 3.0 Units
Develop your skill in creating accurate three-dimensional parametric models using Mechanical Desktop. Explore the exciting features of this program which includes parametric modeling, surface, 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. (Prerequisite: CIDG 6A.) This course may be taken for a total of three times.

CT MANF 30B Mechanical Desktop Advanced 3.0 Units
This advanced course in Mechanical Desktop includes a focused exploration of detailed models and complex assembly models. Students will explore the full features of the Mechanical Desktop package including fasteners, shaft and gear generation and creation of motion based, skin and derived surfaces. Both localized and externalized assemblies will be created and analyzed for interference and engineering characteristics. Two lecture hours, plus additional two hours weekly by arrangement. (Prerequisite: CT MANF 30A)

CT MANF 31A Mastercam 3.0 Units
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. (No prerequisite)

CT MANF 84 Residential Remodeling 3.0 Units
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. (No prerequisite) This course may be taken for a total of four times.

CT MANF 85 Custodial Maintenance 4.0 Units
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. (No prerequisite)

CT MANF 86 Plumbing Repair 3.0 Units
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. (No prerequisite)

CT MANF 87 Electrical Repair 3.0 Units
This class covers most aspects of residential and light commercial electrical repair. Topics covered include but are not limited to electrical tools, electrical theory, wiring systems, electrical materials, electrical services, troubleshooting electrical circuits, low voltage circuits, appliances and motors, and mathematics for electricians. Two lecture, three laboratory hours per week. (No prerequisite)

CT MANF 88 Residential Maintenance and Repair 4.0 Units
This course 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
Small Engines and Light Vehicles 3.0 Units
Street and Highway Construction 3.0 Units
Language Analysis Development 3.0 Units
Introduction to Public Works 3.0 Units

This is a beginning woodworking class. Topics covered include safety, tools, the composition of wood and its characteristics, beginning design and sketching, project planning, measuring and cutting, use of large and small power tools, and general woodworking techniques. Students will be expected to complete multiple projects as part of their grade. Two lecture, three laboratory hours per week. (No prerequisite) [R]

Small Engines and Light Vehicles 3.0 Units
This class covers the fundamentals of small internal combustion engines, and their uses in light vehicles. Topics covered will include but are not limited to theory of small internal combustion engines, service, troubleshooting, repair, small engine applications, and light vehicle design. Two lecture, three laboratory hours per week. (No prerequisite) [R]

Introduction to Public Works 3.0 Units
Introduction to techniques, materials and equipment used in Public Works maintenance and construction. Meets the standards of the American Public Works Association, Street Superintendents' Association and Inspectors' Association. Three lecture hours per week. Offered every 3rd semester. (No prerequisite)

Plan Reading for Public Works 3.0 Units
Reading and interpreting plans related to public works, water, storm drain, and sewage facility projects. Basic survey methods, symbols, mathematical conversions, and determination of slope and grade. Three hours lecture per week. Offered every 4th semester, Fall. (No prerequisite)

Public Works Inspection 3.0 Units
General public works inspection techniques. Includes Portland Cement and asphalt concretes, soils and base and subgrade, safety, contracts, and specifications. Responsibilities of the contractor, engineer, agency, and inspector. Three hours lecture per week. Offered every 4th semester, Spring. (No prerequisite)

Public Works Administration 3.0 Units
An introduction to the organizational concepts used by the Public Works department. Includes typical organization, management concepts, political considerations, planning, budget management and public relations. Three hours lecture per week. Not offered every semester. Offered every 3rd semester. (No prerequisite.)

Street and Highway Construction 3.0 Units
Equipment, materials, and methods employed in the construction, inspection, and maintenance of streets and highways. Includes Portland Cement concrete; surface drainage; traffic signs; safety and safe practices, highway design; laws, codes and ordinances; management principles; budget preparations; equipment maintenance records; underground utilities; surveying and staking. Three hours of lecture per week. Offered every 4th semester, Fall. (No prerequisite)

Water Distribution Systems 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. Offered every 4th semester, Fall. (No prerequisite)

Portland Cement Concrete 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. Offered every 4th semester, Spring. (No prerequisite)

Solid Waste Management 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. Offered every 4th semester, Spring. (No prerequisite)

Wastewater Management 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. Offered every 4th semester, Fall. (No prerequisite)

Language Analysis Development 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.

Language Analysis Development 3.0 Units
This course is specifically designed for students with language-based learning disabilities. It includes both perceptual and neurological deficit stimulation therapy as well as a multisensory, direct instructional, cognitive approach to analyzing the internal components and the rules that govern both the decoding and encoding processes involved in reading and spelling. Many of the activities will enhance a student’s reasoning ability and comprehension of both the written and spoken word. This course will not apply to the Associate Degree. Two hours lecture, additional two hours weekly by arrangement. (No prerequisite) This course may be taken four times.
DEV 60C Language Analysis Development 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 60) This course may be taken four times.

DEV 60D Mathematical Reasoning 3.0 Units
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 60) This course may be taken four times.

ECONOMICS

ECON 1A Principles of Economics: Macro (CAN ECON 2) 3.0 Units
Introduction to economic theory and analysis with emphasis on fiscal policy American capitalism, national income, employment, money, monetary policy, economic stability, and American economic growth and achievements emphasizing the macro-economic approach. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite)

ECON 1B Principles of Economics: Micro (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 Spring. (No prerequisite)

ECON 18 Investments 3.0 Units
Theory and practice of successful investing. Various types of investments surveyed with emphasis on the associated risks and the returns to be expected. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

ECON 28 Special Topics
See Special Topics listing (Variable units).

ECON 29 Independent Study
See Independent Study listing (1-3 units).

EDUCATION

EDUC 1 Introduction to Teaching 3.0 Units
An introduction to teaching and to education as a social institution. The opportunities and requirements for teaching in California and teaching as a profession are presented. 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 the goals, curriculum, and methods of elementary education. This course is not designed to be a course in professional education. Three lecture hours per week. CSU. (No prerequisite)

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)

ELECTRONICS AND COMPUTER TECHNOLOGY

ELCT 10 Survey of Computer Technology 3.0 Units
This course is intended for students who have a general interest in electronics and computer technology, history, and applications. Topics include electronics and computer technology, basic theory of electricity and magnetism, production of electricity and magnetism, control of the electron, electronic and computer components, tools of the trade, troubleshooting, electronic and computer math, applications and operating software. Three hours lecture per week. CSU. (No prerequisite)

ELCT 31 D.C. Circuit Theory and Analysis 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, electromagnet induction, and network theorems, and an introduction to alternating voltages and currents. Three lecture, three laboratory hours per week. CSU. Offered Fall, Spring. (No prerequisite)

ELCT 32 A.C. Circuit Theory and Analysis 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 33 Solid State Devices and Circuits 4.0 Units
Semiconductor theory, algebraic and graphical analysis of semiconductor devices. To include bi-polar and field effect transistors, DC stability design and analysis, small signal parameters and AC equivalent circuits, class A and B power amplifiers, class C and other amplifiers, and frequency effects. Three lecture, three laboratory hours per week. CSU. Offered Fall. (No prerequisite)

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ELCT 34 Solid State Circuit Analysis 4.0 Units
Course focuses on linear-integrated circuits and their use in the design of circuits and instruments. Topics include operational amplifier theory and linear circuits, nonlinear OP-Amp circuits, regulated power supplies, oscillators and timers, thyristors, frequency domain, and frequency mixing. Three lecture, three laboratory hours per week. Offered Spring. (No prerequisite)

ELCT 38 Cooperative Education
See Cooperative Education (1 - 8 units).

ELCT 48 Special Topics
See Special Topics listing (Variable units).

ELCT 53 Electronic Communication Principles 4.0 Units
Study of all relevant aspects of modern communication principles. Topics include amplitude modulation transmission and reception, single-sideband communications, frequency modulation transmission and reception, television, and communications techniques. Three lecture, three laboratory hours per week. Offered Fall. (No prerequisite)

ELCT 54 Electronic Communication Systems 4.0 Units
A study of modern communication systems. Topics include digital and data communications, transmission lines, wave propagation, antennas, wave guides and radar, microwave and lasers, and fiber optics. Three lecture, three laboratory hours per week. Offered Spring. (No prerequisite)

ELCT 57 Technical Mathematics For Electronics I 3.0 Units
This course is designed to provide a basis for a clear mathematical understanding of the principles of DC electricity and electronics and their analysis. Covered are algebra, equations, power of 10, units and dimensions, special products and factoring, algebraic fractions, fractional equations, graphs, simultaneous equations, determinants and matrices, exponents and radicals, and quadratic equations. Three lecture hours per week. Offered Fall, Spring. (No prerequisite)

ELCT 58 Technical Mathematics For Electronics II 3.0 Units
This course is designed to provide a basis for a clear mathematical understanding of the principles of AC electricity and electronics and their analysis. Covered are inequalities, series, angles, trig functions, solution of right triangles, trig identities and equations, plane vectors, periodic functions, phasor algebra, and logarithms. Three lecture hours per week. Offered Spring, Summer. (No prerequisite)

ELCT 59 Technical Calculus For Electronics I 3.0 Units
This course is designed for students who are preparing for careers in electronics, electricity, computers, and related technical fields. Topics include fundamental concepts, introduction to calculus for electronics, functions, rates, limits, graphic differentiation, basic operations, derivatives, differentials, maxima and minima, and integrals. Three lecture hours per week. Offered Fall. (No prerequisite) This course may be taken two times.

ELCT 60 Technical Calculus For Electronics II 3.0 Units
This course in technical calculus for electronics continues the study of functions and further operations. Topics includes trig functions, logarithmic and exponential functions, hyperbolic functions, partial derivatives, integration techniques, double integrals, infinite series, MacLaurin series, Taylor series, Fourier series, and introduction to differential equations. Three lecture hours per week. Offered Spring. (No prerequisite) This course may be taken two times.

ELCT 65 PC Monitors 2.0 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. Eight hours weekly by arrangement for nine weeks. (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  2.0 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 compressed 9-week, self-paced program that utilizes computer aided instruction (CAI) as the principle instruction tool. Two lecture, six laboratory hours per week for nine weeks. (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 combinatorial logic functions. 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. CSU. Offered Fall. (No prerequisite)

ELCT 72  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. CSU. Offered Fall. (No prerequisite)

ELCT 73  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 74  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 75  Basic Maintenance of Personal Computers  4.0 Units
This hands-on course is designed to provide non-technical personal computer (PC) users with the skills necessary to service and upgrade PCs. Activities include: computer assembly and disassembly, disk drive removal and installation, and memory expansion with integrated circuit (IC) chips. Installation and check out of special functions boards, such as FAX/modem, also will be demonstrated. Lectures describing the PC and its components are augmented with computer-aided individualized instruction modules covering selected electronic principles related to the PC. Satisfies computer industries A+ certification requirements. Two hours lecture, 1.8 hours laboratory and 2.8 hours weekly by arrangement. (No prerequisite)

ELCT 76  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 77  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 78  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)

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ELCT 88  Industrial Electronics: Industrial Process Control Applications  3.0 Units
This course is designed to demonstrate a wide variety of electronic control systems and circuits which are controlled both manually and by use of the programmable logic controller (PLC). Topics include: motors and generators, control devices, timing control, motor control, counting, position control, servomechanisms, and applications and troubleshooting. Six hours weekly by arrangement. (No prerequisite)

ELCT 89  Biomedical Electronics: Biomedical Instrumentation  3.0 Units
This course is designed for students planning careers in biomedical electronics, technicians working in hospitals, and those working for companies that manufacture, service, install biomedical equipment. Six hours weekly by arrangement. (No prerequisite)

ELCT 90  Biomedical Electronics: Advanced Biomedical Instrumentation  3.0 Units
This course is a continuation of ELCT 89, and is to acquaint the student with sensors and other electronic equipment used in making physiological measurements. Topics include: electrocardiograph measurements (ECG), electromyogram measurements (EMG), electroencephalogram measurements (EEG), pulse rate, galvanic skin resistance, and temperature measurement. Six hours weekly by arrangement. (No prerequisite)

ELCT 91  Microprocessor Interfacing  3.0 Units
This course is designed to give the student a practical working knowledge of interfacing a microprocessor with external sensing and activator systems. Topics include microprocessor basics, buses, address decoding, 68HC11 chip structure and internal features, instruction timing, switch decoding, interfacing with displays and adapters, I/O control techniques, date 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 the 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 95  Personal Computer (PC): Servicing  3.0 Units
This hands-on course is designed to provide the student skills to work service, maintain, upgrade, and optimize personal computers. Activities include: computer disassembly, component identification, using diagnostic software, configuring the computer, troubleshooting methods, hard drive removal and installation, floppy drive removal and installation, troubleshooting a malfunctioning computer, and introduction to advanced troubleshooting techniques. Satisfies computer industries A+ certification requirements. Six hours weekly by arrangement. (No prerequisite)

ELCT 96  Personal Computer (PC): Troubleshooting  3.0 Units
This course is a continuation of ELCT 95, Personal Computing Servicing. This hands-on course is designed to provide comprehensive troubleshooting down to the component level. Topics include: computer circuits, central processing unit (CPU) and support circuits, system monitors, input/output (I/O), system and secondary cache memory, video, disk drives and their control, and troubleshooting techniques. Six hours weekly by arrangement. (No prerequisite)

ELCT 97  Telecommunications: Digital Communications  3.0 Units
This high technology laboratory course is designed to provide a broad background in the use of digital devices used in telephony, as well as in general digital communications. Emphasis is placed on the telephone industry, both wireless and fiber optics telecommunications, and synthetic speech. Topics include: digital communications, the subscriber telephone, the central office, and digitized speech. Six hours weekly by arrangement. (No prerequisite)

ELCT 98  Telecommunications: Microwave Communications  3.0 Units
This high technology laboratory course is designed to provide a broad background in the use of microwave transmitters, receivers, microwave components, and horn antennas. Emphasis is placed on microwave communication links. Topics include: voice, narrow band, audio wideband, television, video, fiber optics interfaces, pulse code modulation, and multiplexing signals. Six hours weekly by arrangement. (No prerequisite)

ELCT 105  CET Exam Preparation  1.5 Units
Covers all electronic circuits required by the Electronics Technicians Assn. International for successful completion of the Certified Electronic Technician examination. Includes DC and AC circuits, filters, thyristors, transistors, diodes, power supplies, and voltage regulators; also covers test equipment used in electronics including voltmeters, ammeters, oscilloscope frequency meters, and VTVM’s’s. Three lecture hours per week for nine weeks. Offered Spring. (No prerequisite)
ELCT 106   FCC License Preparation   0.5 Unit
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. Three lecture hours per week for nine weeks. Offered Spring. (No prerequisite)

ELCT 107   A+ Certification Examination Preparation   2.0 Units
The A+ Certification Examination Preparation course is designed to help the student pass the A+ Certification Test as quickly and easily as possible. The course consists of three main elements: (1) a test-simulation-and-review software program that provides practice tests with realistic questions, (2) an A+ Certification Program “Student Guide,” and (3) access to a 5800-page reference library consisting of ten textbooks. This course will not apply to the Associate Degree. Two lecture, six laboratory hours per week for nine weeks. (No prerequisite) This course may be taken four times.

ENGLISH

ENGL 1A   English Composition and Reading (CAN ENGL 2)   3.0 Units
Principles and methods of expository writing. Analytical reading of source materials and writing of expository papers. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (Prerequisite: ENGL 50 with grade of “C” or better)

ENGL 1B   Composition and Literature (CAN ENGL 4)   3.0 Units
Further training in writing and an introduction to types of modern literature—the short story, poetry, drama, and the novel. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (Prerequisite: A grade of “C” or better in ENGL 1A)

ENGL 2   Critical Thinking and Composition 3.0 Units
This course is designed to develop the student’s critical thinking, reading and writing skills beyond the level achieved in English 1A. 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 1A with a grade of “C” or better)

ENGL 9   Creative Writing (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 1A with a grade of “C” or better. ENGL 1B recommended)

ENGL 12   Technical Writing   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 1A with a grade of “C” or better)

ENGL 16   Authors of the Theatre   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 16. (No prerequisite)

ENGL 20   Modern Fiction   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 1B with a grade of “C” or better)

ENGL 25   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 1B with a grade of “C” or better)

ENGL 28   Special Topics
See Special Topics listing (Variable units).

ENGL 29   Independent Study
See Independent Study (1-3 units).

ENGL 30A   Survey of American Literature 1600-1865 (CAN ENGL 14)   3.0 Units
A survey of exemplary items in the origin and development of American thought and culture from 1600 to 1865. Designed to provide an understanding and appreciation of American literary achievements through study of the works of writers including Bradford and Bradstreet, Edwards and Wheatley, Franklin, Irving, Poe, Stowe and Emerson. Also includes a study of Native American folk tales and slave narratives. Three lecture hours per week. CSU, UC. Offered Fall semester every third year starting Fall 1991. (Prerequisite: Completion of English 1B with a grade of “C” or better)

ENGL 30B   Survey of American Literature 1865 to Present (CAN ENGL 16)   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 English 1B with a grade of “C” or better)

ENGL 31   Native American Literature   3.0 Units
An introduction to Native American literature from the oral tradition to contemporary writing. Study of myths and legends, traditional oral narratives and songs, transitional forms such as oration and autobiography, and written genres (poem, short story, novel). Three lecture hours per week. CSU, UC. (No prerequisite; ENGL 1B is recommended.)
ENGL 32 Chicano/a and Latino/a Literature 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. (Prerequisite: English 1A)

ENGL 35 Children's Literature 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: English 1A with a grade of “C” or better)

ENGL 38 Cooperative Education
See Cooperative Education listing (1-8 units).

ENGL 40A-B World Literature 3.0-3.0 Units
Masterpieces from translation from earliest times through the Renassance (40A), and from the Neoclassical to modern times (40B). Three lecture hours per week. CSU, UC. ENGL 40A offered Fall semester every third year starting Fall 1990. ENGL 40B offered Spring semester every third year starting Spring 1991. (Prerequisite: ENGL 1B with a grade of “C” or better)

ENGL 46A Survey of English Literature (CAN ENGL 8) 3.0 Units
A survey of major writers from the Middle Ages to 1800, including an examination of language development, historical backgrounds, and literary trends; special consideration of Chaucer, Spencer, 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 1B with a grade of “C” or better)

ENGL 46B Survey of English Literature (CAN ENGL 10) 3.0 Units
A survey of major British writers of poetry, drama, fictional and nonfictional prose from 1800 to the present. Three lecture hours per week. CSU, UC. Offered Spring semester every third year starting Spring 1993. (Prerequisite: ENGL 1B with a grade of “C” or better)

ENGL 47 Shakespeare 3.0 Units
An introduction to Shakespeare's work through a study of his principal plays and the sonnets. Three lecture hours per week. CSU, UC. Offered Spring semester every other year starting Spring 1991. (Prerequisite: ENGL 1B with a grade of “C” or better)

ENGL 49 Critical Reading and College Study Skills 3.0 Units
Formerly College Reading.
A college reading course emphasizing interpretive, analytical, and evaluative abilities required for academic reading; college vocabulary, research, and study skills. Three lecture hours per week. CSU. Offered Fall, Spring, Summer. (Prerequisite: ENGL 59 with a grade of “C” or better)

ENGL 50 Writing Fundamentals 3.0 Units
A practical course in the process and function of expository writing, including a review of spelling, punctuation, diction, usage, and sentence structure. Writing short compositions and reading prose. Three lecture hours per week. Offered Fall, Spring, Summer. (Prerequisite: English 166)

ENGL 50L Laboratory-Enhanced Study for English 50 1.0 Unit
A laboratory-enhanced study concurrent with English 50 for students participating in the Student Support Services program. A practical course supplementing the process and function of expository writing, including a review of spelling, punctuation, diction, usage, and sentence structure. One-half lecture, one hour by arrangement per week. (Prerequisites: completion of English 166 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 58 Reading Improvement 1 3.0 Units
A semi-individualized reading course designed so that each student 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 spelling skills. Three lecture hours per week. This course will not apply to the Associate Degree. Offered Fall, Spring, Summer. (No prerequisite. Grade option) This course may be taken two times.

ENGL 59 Effective Reading and Study Skills 3.0 Units
This reading course focuses on comprehension, retention, and reproduction of main ideas and significant details. Application of reading skills, rate of comprehension, vocabulary, critical thinking, and study skills. Three lecture hours per week. Offered Fall, Spring, Summer. (Prerequisite: English 169 with a grade of “C” or better) This course may be taken two times.

ENGL 70 African American Literature 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. (Prerequisite: ENGL 1B with a grade of “C” or better)

ENGL 166 Basic Writing and Reading 4.0 Units
This is a basic reading and writing course designed to build reading comprehension at both literal and inferential levels and to build proficiency in the basics of writing expository prose. This course emphasizes the connections between reading and writing 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.
ENGLISH AS A SECOND LANGUAGE (ESL)

ESL 101 and 102 are the most advanced courses in a six-level program of English. VVC also offers a wide variety of non-credit ESL classes at lower levels, from low beginning to high intermediate. Please consult the Class Schedule for a description of these classes, along with times and locations.

**ESL 101 Intermediate Writing I** 3.0 Units
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 completion of non-credit ESL course work or satisfactory score on ESL placement test or instructor recommendation is recommended. Credit/No Credit) This course may be taken four times.

**ESL 102 Intermediate Writing II** 3.0 Units
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 101 or satisfactory score on ESL placement test or instructor recommendation is recommended. Credit/No Credit) This course may be taken three times.

**ESL 103 Reading and Vocabulary** 3.0 Units
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 104 High Intermediate Reading and Vocabulary** 3.0 Units
This class is a continuation of ESL 103. 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 103, or have a satisfactory score on the ESL placement test, or instructor recommendation. Credit/No Credit) This course may be taken three times.

**ESL 111 Low Intermediate Grammar I** 1.5 Units
First in a series of courses designed for ESL students to help them understand and apply rules of English grammar, structure, and punctuation. This course provides practice in such areas as correct use of certain verb tenses, time clauses, subject-verb agreement, and certain prepositions. This course will not apply to the Associate Degree. Two lecture, three laboratory hours per week for 9 weeks. (No prerequisite. Recommended: Any of the following: minimum score of 40% on CELSA, successful completion of AENG 10.3 and 10.4, or instructor recommendation. Grade Option) This course may be taken four times.

**ESL 112 Low Intermediate Grammar II** 1.5 Units
Second in a series of courses designed for ESL students to help them understand and apply rules of English grammar, structure, and punctuation. This course provides practice in such areas as correct use of will and going to, modal verbs, and nouns. This course will not apply to the Associate Degree. Two lecture, three laboratory hours per week for nine weeks. (No prerequisite. Recommended: Any of the following: minimum score of 40% on CELSA, or successful completion of AENG 10.3 and 10.4, or instructor recommendation. Grade Option) This course may be taken four times.

**ESL 113 High Intermediate Grammar I** 1.5 Units
This is the third in a series of courses designed for ESL students to help them understand and apply rules of English grammar, syntax, and punctuation. This course provides practice in such areas as past modals, perfect verb tenses, and adjective clauses. This course will not apply to the Associate Degree. Two lecture, three laboratory hour per week for nine weeks. (No prerequisite. Recommended: Any of the following: successful completion of ESL 111 and 112, or a minimum score of 65% on the CELSA, or instructor recommendation) This course may be taken four times.

**ESL 114 High Intermediate Grammar II** 1.5 Units
This is the fourth in a series of courses designed for ESL students to help them understand and apply rules of English grammar, syntax, and punctuation. This course provides practice in such areas as tag questions, direct and indirect speech, and phrasal verbs. This course will not apply to the Associate Degree. Two lecture, three laboratory hours per week for nine weeks. (No prerequisite. Recommended: Any of the following: successful completion of ESL 111 and 112, or a minimum score of 65% on the CELSA, or instructor recommendation. Grade Option) This course may be taken four times.

**ESL 116A 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 ESL 111 and 112, or a minimum score of 40% on the CELSA, or instructor recommendation. Grade Option) This course may be taken four times.

**ESL 116B Speaking and Listening Skills 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 116C** Speaking and Listening Skills 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 how to understand 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 116D** Speaking and Listening Skills 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 116E** Speaking and Listening Skills for Job Situations 0.5 Unit
This is the fifth 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 problems and opportunities that arise in the workplace, including making complaints, confronting, and discussing and reaching agreement. This course will not apply to the Associate Degree. Four lecture hours, 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 116F** Speaking and Listening Skills at Work: Self-Help 0.5 Unit
This is the final course 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 how students can continue improving their speaking and listening skills in the workplace, including how to learn new vocabulary, how to utilize people at work for ongoing learning, and using a dictionary. 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 117** Oral Skills for College and Career I 1.5 Units
An oral skills course for intermediate and advanced ESL students who wish to gain speaking and listening skills necessary for success in an educational and work setting. Course covers oral skills needed in informal situations such as conversation and discussion, and in settings where information acquisition and problem solving take place. Two lecture, three laboratory hours per week for nine weeks. (No prerequisite. Recommended: completion of AENG 10.5, a minimum score of 50% on the listening portion of the Comprehensive English Language Test, concurrent enrollment in or completion of any credit ESL course, or teacher recommendation. Credit/No Credit) This course will not apply to the Associate Degree. This course may be taken three times.

**ESL 118** Oral Skills for College and Career II 1.5 Units
This is the second in a series of listening and speaking courses designed for intermediate and advanced ESL students. This course focuses on formal skills needed in a college classroom and job setting, such as note-taking, formal discussion, job interviewing, and formal speaking. Two lecture, three laboratory hours per week. (No prerequisite. Recommended: completion of ESL 117, a minimum score of 50% on the listening portion of the Comprehensive English Language Test, or teacher recommendation. Credit/No Credit) This course will not apply to the Associate Degree. This course may be taken three times.

**FIRE TECHNOLOGY**

**FT 21** 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.

**FT 30** Fire Protection Organization 3.0 Units
Provides an introduction to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection; fire loss analysis; organization and functions 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)
FT 31 Fundamentals of Fire Service Operations 3.0 Units
Provides the student with the fundamentals of fire department organization, management, and resources, and emphasizes the use of those resources to control various emergencies. Three lecture hours per week. CSU. (No prerequisite)

ET 32 Fire Prevention Technology 3.0 Units
This course provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationship of fire prevention with fire safety education and detection and suppression systems. Three lecture hours per week. CSU. Offered Fall, Spring. (No prerequisite)

FT 35 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)

FT 37 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, distinguishing agents, and fire control techniques. Three lecture hours per week. CSU. (No prerequisite)

FT 38 Cooperative Education
See Cooperative Education listing (1-8 units).

FT 39 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)

FT 40 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)

FT 41 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)

FT 43 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)

FT 45 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)

FT 48 Special Topics
See Special Topics listing (Variable units).

FT 49 Independent Study
See Independent Study listing (1-3 units).

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 a leader by presenting current research on management, leadership, stress, and time management and explaining how to adapt this information to their own specific management context. Accredited by State Fire Marshal's Office. One lecture hour per week. (No Prerequisite. Credit/No Credit) This course may be taken four times.

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. One lecture hour per week. (No Prerequisite. Credit/No Credit) This course may be taken four times.

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. One lecture hour per week. (No Prerequisite. Credit/No Credit) This course may be taken four times.

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), NFPA 472. $10.00 fee for CSTI certificate. Eight lecture hours per week for one week. (Prerequisite: FT 80. Credit/No Credit)

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]
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 twenty-four laboratory hours per week for two weeks. (No prerequisite. Credit/No Credit. Recommended preparation: Good attitude and willingness to work hard.)

FT 59.1 Wildfire Firefighter'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 control. 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.

FT 60 Basic Wildland Fire Control 2.0 Units
Basic wildland hand-crew training. The course covers fire suppression organizations, fire behavior, meteorology, suppression techniques, and safety. Meets federal fire agencies requirements for employees and mutual aid cooperators. Seven lecture, four laboratory hours per week for four weeks. Offered Spring. (No prerequisite)

FT 60.2 Hand Crew Fire Fighter 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 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.

FT 61 Rescue Practices 3.0 Units
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.

FT 62 Intermediate Wildland Fire Behavior 2.0 Units
This thirty-two hour course prepares the fire fighter student to work within the operations section of the Incident Command Systems (ICS) at wildland fire incidents. This is a "skills" course that is designed to instruct prospective fireline supervisors in wildland fire behavior for effective and safe fire management operations. Thirty-two lecture hours for one week. (No prerequisite)

FT 63 Apparatus Driver/Operator 1A 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.

FT 63.1 Basic Fire Engine Operation Academy, CDF 3.5 Units
This course provides the student with the information and skills to safely drive and operate fire apparatus and fire pumps and provide initial attack incident control capabilities according to California Department of Forestry standards and policies. Sixteen lecture, twenty-four laboratory hours per week for one week. (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.

FT 64 Apparatus Driver/Operator 1B 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.

FT 66 Introduction to Incident Command 1.0 Unit
This course provides an introduction to, and an overview of the Incident Command System and introduces the participants to the NIMS (National Interagency Incident Management System). Sixteen lecture hours per week for one week. (No prerequisite)

FT 66.2 Advanced Incident Command 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: FT 66.1, or employment within a recognized fire service agency at the rank of company officer or above. State mandated. Credit/No Credit)

FT 66.3 Division/Group Supervisor, 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: FT 66.2, FT 66, FT 86. State Mandated. Credit/No Credit)
FT 67  Trench Rescue  0.5 Unit  
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. Four lecture hours per week for two weeks. (No prerequisite)

FT 68  ICS-334 Strike Team Leader-Engine 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)

FT 68.1  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)

FT 68.2  Incident Commander, Initial 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: FT 66, FT 68.1. State mandated. Credit/No Credit)

FT 68.25  Response to Terrorism  1.0 Unit  
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)

FT 68.3  Incident Commander, Extended 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: FT 68.2, FT 66, FT 86. State mandated. Credit/No Credit)

FT 68.4  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 hours per week for one week. (Prerequisites: FT 68.1 and FT 66.1. State mandated. Credit/No Credit)

FT 68.5  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: FT 68.4, FT 66. State mandated. Credit/No Credit)

FT 68.6  Medical Unit Leader, S-359  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: FT 81 and FT 66.1. State mandated. Credit/No Credit)

FT 68.7  Basic Air Operations, S-270  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: FT 66. State mandated. Credit/No Credit)

FT 68.8  Incident Safety Officer, S-401  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 $50.00 fee for certificate. Twenty-four hours lecture per week for one week. (Prerequisites: FT 66.1, FT 66.4, FT 66.3 or employment within a recognized fire service agency at the rank of company officer or above. State Mandated. Credit/No Credit)

FT 68.9  Helispot Manager, S-272  0.5 Unit  
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: FT 68.2. State mandated. Credit/No Credit)

FT 68.10  Resource Unit Leader/ Demobilization Unit Leader  2.0 Units  
This course prepares the fire fighter student to work as a resource unit leader/demobilization unit leader within the Incident Command System. The responsibilities, duties and materials required to function in this position are discussed. North West Coordinating Group certified. Thirty-two lecture hours per week for one week. (Prerequisites: FT 68.12 and FT 66.1. State mandated. Credit/No Credit)
FT 68.11 Fire Line Emergency Medical Technician (EMT) 0.5 Unit
This eight-hour course is designed to prepare the fire fighter, Emergency Medical Technician to safely operate at a major wildland fire incident at the fire line location. Course covers duties and responsibilities of the Fire Line EMT; equipment needs, helicopter safety, the Incident Command System (ICS) organization, review of treatments for common fire line injuries, and use of makeshift aids. Eight lecture hours per week for four weeks. (Prerequisites: FT 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.

FT 68.12 Check In/Status Recorder, S-248 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: FT 68.2. State mandated. Credit/No Credit)

FT 69 Building Construction for Fire Protection 3.0 Units
This course is the study of the components of building construction that relates to fire safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at fires. The development and evolution of building and fire codes will be studied in relationship to past fires, in residential, commercial, and industrial occupancies. Three lecture hours per week. (No prerequisite)

FT 70 Instructor IA - Instructional Techniques Part I 2.0 Units
This is the first of a two-course series and is the standard State Board of Fire Services accredited course as offered in community colleges. Topics include the occupational analysis, course outlines, concepts of learning, levels of instruction, behavioral objectives, using lesson plans, the psychology of learning, and evaluation of effectiveness. Activities include student teaching demonstrations. This course applies to Fire Officer, Fire Instructor I, and Public Education Officer I certifications. Thirty-six lecture hours per week for one week. (No prerequisite)

FT 71 Instructor IA - Instructional Techniques Part 2 2.0 Units
This is the second in a two-course series and is the standard State Board of Fire Services accredited course as offered in community colleges. Topics include preparing course outlines, establishing levels of instruction, constructing behavioral objectives and lesson plans, instructional aid development, fundamentals of testing and measurements, tests planning, evaluation techniques and tools. Activities include student teaching demonstrations. This course applies to Fire Officer, Fire Instructor I, and Public Education Officer II certifications. Thirty-six lecture hours per week for one week. (No prerequisite)

FT 72 Fire Command IA - Command Principles for Company Officers 2.0 Units
This course provides the instruction and simulation time to the participants pertaining to the initial decision and action processes at a working fire. The course includes areas of discussion on the fire officer, fire behavior, fireground resources, operations and management. This course applies to Fire Officer certification. 18 lecture hours per week for two weeks. Offered Fall. (No prerequisite)

FT 73 Fire Command IB - Hazardous Materials Command Principles for Company Officers 2.0 Units
This course provides instruction in tactics and strategies and scene management principles for incidents involving hazardous materials. The course includes areas of discussion on identification and hazard mitigation, decontamination, protective clothing, environmental concerns, and legal issues. This course applies to Fire Officer certification. 18 lecture hours per week for two weeks. (No prerequisite. FT 66 recommended)

FT 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. 18 lecture hours per week for two weeks. (No prerequisite)

FT 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. 18 lecture hours per week for two weeks. (No prerequisite)

FT 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. 18 lecture hours per week for two weeks. (No prerequisite)

FT 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. Eighteen lecture hours per week for two weeks. (No prerequisite)
FT 78  Fire Prevention 1C - 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. Eighteen lecture hours per week for two weeks. (No prerequisite)

FT 79  Fire Investigation 1B 2.0 Units
This course provides the participants with information to achieve a deeper understanding of fire investigation. This course builds on FT 77 Investigation IA and adds topics of discussion including the juvenile fire setter, report writing, evidence collection and preservation procedures. 18 lecture hours per week for two weeks. (No prerequisite)

FT 80  Hazardous Materials First Responder 1.5 Units
To provide participants who are likely first responders with the necessary awareness of safe and competent hazardous materials response techniques. Participants shall also be able to provide safe identification and assessment evaluation, as well as select safe containment and protective actions to mitigate the hazardous materials incident whenever safety and resource capabilities permit. Twenty-four hours of lecture total. Offered Fall, Spring. (No prerequisite) This course may be taken four times.

FT 81  Emergency Medical Technician 1 5.5 Units
The first phase of training in the Emergency Medical Technician (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 hours lecture, ten hours laboratory for CPR training. Offered Fall, Spring. (Prerequisite: ENGL 50, 18 years of age by final exam.)

FT 81.2  EMT-ID, Defibrillation 0.5 Unit
This course will provide the Emergency Medical Technician (EMT-I) 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-I, and be currently employed with an approved EMT-ID provider. State mandated. Credit/ No Credit)

FT 81.4  EMT-I, Continuing Education Recertification 0.5 Unit
This course provides the student with the information skills development and testing requirements for recertification qualification for Emergency Medical Technician 1 and qualifies for Continuing Education credit. Four lecture hours, twelve labor-
FT 88 Fire Command 2B - Management of Major Hazardous Materials 2.0 Units
This course prepares the fire fighting student with the information necessary to successfully manage a major hazardous materials incident within their jurisdiction. Areas of discussion include: information and data bases for hazardous materials; organizations, agencies and institutions involved with hazardous materials response and research; planning for your community’s hazardous materials problems; legislation, litigation and liabilities of hazardous materials responses. Forty lecture hours for one week. (No prerequisite)

FT 89 Fire Command 2C - High Rise Fire Tactics 2.0 Units
This course prepares the fire fighter student to manage a fire in small and large high rise buildings. Topics of discussion include: pre-fire planning; building inventory; problem identification; ventilation methods; water supply; life safety; firefighting 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)

FT 90 Paid Call Fire Fighter Academy 2.0 Units
The Paid Call Fire Fighter Academy will provide basic training for individuals interested in becoming a Paid Call Fire Fighter. Students must attend a mandatory orientation. Four lecture hours, twelve laboratory hours per week for four weeks. Offered Fall, Spring. (Prerequisite: Complete a physical exam and demonstrate the ability to use fire department tools and equipment.)

FT 91 Fire Control 5 1.5 Units
This course provides the fire fighter student with the information, methods and techniques necessary for providing crash fire rescue services (CFR) at airports. Subjects include: Utilizing conventional fire and specialized apparatus, CFR extinguishing agents, types of aircraft, standby procedures and operations at airports. Actual airport firefighting 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.

FT 93 Fire Management 2D, Master Planning 2.0 Units
This course provides participants with information and discussion centering around program planning, master planning, forecasting, system analysis, system design, policy analysis, and other tropics. Applies to Chief Officer certification. State Fire Marshal accredited. Forty lecture hours for one week. (No prerequisite) This course may be taken four times.

FT 94 Fire Management 2D, Planning for Large Scale Disasters 2.0 Units
The principles of disaster planning and the role of the fire department are discussed. Emergency Operation Centers (EOC), the role of Federal Emergency Management Administration (FMA), mutual aid, legal considerations, and mitigation techniques are topics covered. Case studies are examined and simulation exercises are feature. Forty lecture hours for one week. (No prerequisite) This course may be taken four times.

FT 95 Basic Fire Academy 10.0 Units
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)

FT 97 Fire Fighter II Academy 1.5 Units
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 [FT 95], or recommendation of training officer from a fire protection organization. Credit/No Credit) This course may be taken four times.

FT 98 Fire Company Officer’s Academy 1.5 Units
This forty-hour course is designed for the fire fighter student in order to provide students with a brief but comprehensive overview of the responsibilities of a fire department company officer. Emphasizes fundamental techniques of personnel management, supervision and leadership. Topics covered include: motivating, coaching and counseling subordinates; basic fire ground principles; and fire ground tactics and strategies at the company officer level. Twenty-four lecture, sixteen laboratory hours for one week. (No prerequisite)

FT 98.1 Company Officer’s Skills Maintenance 1.5 Units
This course provides the fire fighter company officer student with new information and skill development to maintain efficiency and effectiveness as a company officer and fire fighter. New policies, procedures and equipment are presented and student demonstrates proficiency in using tools, tactics and strategies for managing personnel, budgets and legal responsibilities in today’s fire service. Sixteen lecture, twenty-four laboratory hours per week for one week. (Prerequisites: Employment as a fire company officer in a modern fire service agency. State mandated. Credit/No Credit) This course may be taken four times.

FT 99 Chief Officer’s Workshop 1.0 Unit
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.
FT 101 Fire Fighter Skills Maintenance 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: FT 30 and FT 90 or FT 95 or equivalent. Employment as career fire fighter or paid call fire fighter recommended)

FT 102 Skills Maintenance For Paid 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)

FT 103 Incident Command System - 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)

FT 104 First Responder Medical, Refresher 1.0 Unit
This course provides a review of the skills and knowledge necessary to perform as a first responder medical technician in an emergency care setting. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit)

FT 105 First Responder Medical, Instructor 2.0 Units
This course provides the instructor with the principles and techniques necessary to instruct and train first responder medical technicians and paramedics in the skills and knowledge necessary to perform as a first responder medical technician in an emergency care setting. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit)

FT 106 First Responder Medical 2.0 Units
This course provides the first responder medical technician student with the skills and knowledge necessary to perform as a first responder medical technician in an emergency care setting. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit)

FT 107 First Responder - Medical 2.0 Units
This course provides a review for first responder medical technicians. It covers the principles and techniques necessary to perform as a first responder medical technician in an emergency care setting. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit)

FT 108 Basic Fire Fighting Techniques 1.0 Unit
This course provides the basic principles and techniques necessary for fire fighters to perform their duties. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit)

FT 109 Basic Fire Fighting, Instructor 2.0 Units
This course provides the instructor with the principles and techniques necessary to instruct and train basic fire fighters in the skills and knowledge necessary to perform as a basic fire fighter. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit)

FT 110 Low Angle Rescue 1.0 Unit
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)

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 fighting 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)

FT 112 I-333 Strike Team Leader, Crew 1.0 Unit
This course will provide the fire fighter student with the information necessary to perform as a strike team leader in charge of a hand crew at wildland fire suppression operations. Sixteen lecture hours for one week. This course will not apply to the Associate Degree. (No prerequisite.) This course may be taken four times.

FT 113 Emergency Medical Technician 0.5 Unit
A 24-hour refresher course for fire service students who require recertification for Emergency Medical Technician I, State Fire Marshal or Fire Service certificates who do not operate ambulances or transport patients. Course approved by the State Board of Fire Services and State Fire Marshal's office. Eight lecture, 16 laboratory hours per week for one week. This course will not apply to the Associate Degree. (Prerequisite: Must possess valid EMT I, State Fire Marshal's certificate-State regulation. Credit/No Credit) This course may be taken four times.

FT 114 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)

FT 115 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 assumed. Ten lecture hours for one week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit)

FT 116 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 lecture hours, ten hours laboratory for one week. This course will not apply to the Associate Degree. (No prerequisite. Credit/No Credit)

FT 117 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. One hour lecture, one half hour laboratory hour per week. This course will not apply to the Associate Degree. (No Prerequisite. Credit/No Credit) This course may be taken four times.

FT 118 Emergency Medical Technician 0.5 Unit
A 24-hour refresher course for fire service students who require recertification for Emergency Medical Technician I, State Fire Marshal or Fire Service certificates who do not operate ambulances or transport patients. Course approved by the State Board of Fire Services and State Fire Marshal's office. Eight lecture, 16 laboratory hours per week for one week. This course will not apply to the Associate Degree. (Prerequisite: Must possess valid EMT I, State Fire Marshal's certificate-State regulation. Credit/No Credit) This course may be taken four times.
FT 121  California Department of Forestry  
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.

FT 121.1 Firing Methods and Procedures  1.0 Unit  
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. Sixteen lecture hours for one week. This course will not apply to the Associate Degree. (Prerequisites: FT 66.0, FT 68.4. State mandated. Credit/ No Credit) This course may be taken four times.

FT 130  Instruction Techniques for 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.

FT 131  National Fire Academy Public 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.

FT 168.15  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: ET 68.2. State mandated. Credit/ No Credit)

FT 168.16  Technical Specialist, Crew  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: FT 66.1. State mandated. Credit/ No Credit) This course may be taken four times.

FT 168.17  Basic Fire Crew, Captain  2.0 Units  
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.

FT 168.18  Class A Foam Operations  1.0 Unit  
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: FT 68.1. State mandated. Credit/ No Credit) This course may be taken four times.

FT 168.19  Back Fire/Bum Out Safety  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: FT 68.4. State mandated. Credit/ No Credit) This course may be taken four times.

FRENCH  
FRENCH 1  Elementary French (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)

FRENCH 2  Elementary French (CAN FREN 4) 5.0 Units  
Continuation of French 1 stressing review of basic structures, more advanced grammar, spoken and written communication. Five lecture hours per week. CSU, UC. Offered Spring. (Prerequisite: FRENCH 1)

FRENCH 3  Intermediate French (CAN FREN 8) 3.0 Units  
Continuation of French 2 with grammar review and expansion, introduction to simple literary texts, spoken and written communication. Three lecture hours per week. CSU, UC. Offered Fall. (Prerequisite: FRENCH 2)

FRENCH 4  Intermediate French (CAN FREN 10) 3.0 Units  
Continuation of French 3 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: FRENCH 3)

FRENCH 25  Conversational French  3.0 Units  
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)

FRENCH 28  Special Topics  
See Special Topics listing (Variable units).
FRENCH 29 Independent Study
See Independent Study listing (1-3 units).

GEOGRAPHY

GEOG 1 Physical Geography (CAN GEOG 2) 3.0 Units
An introduction to the fundamental concepts of geography with emphasis on the physical world, its components and interrelationships. Topics include earth/sun relationships, atmospheric elements and weather, climate and seasons, earthquakes and volcanoes, rocks and minerals, oceans and coastlines, glaciers, and landform distribution. Also included are introductory methods of map reading and interpretation. Current environmental issues relating to these topics are emphasized. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

GEOG 1L Geography Laboratory (CAN GEOG 6) when taken with GEOG 1 1.0 Unit
This course includes the study of world patterns of climate, water, glaciation, vegetation, soils and landforms with consideration of basic factors affecting the distribution and interrelationships of these patterns, map reading and interpretation, and the basic study of the earth and its movement within the solar system. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: GEOG 1 or concurrent enrollment)

GEOG 2 Cultural Geography (CAN GEOG 4) 3.0 Units
An examination of human activities on the surface of the earth as exhibited by various cultures. Worldwide variations in land-use systems, settlement patterns, economic activities, political and religious institutions, languages, and the numbers and movement of human populations are explored. Geographic analysis will be used to examine the similarities and differences of these worldwide variations. Three lecture hours per week. CSU, UC. Offered Spring. (No prerequisite)

GEOG 3 Geography of California 3.0 Units
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, coastal ecosystems, water and air pollution, conservation, and physical disasters. California's unique position within the Pacific Rim will also be examined. Three lecture hours per week. CSU. (No prerequisite)

GEOG 28 Special Topics
See Special Topics listing (Variable units).

GEOLOGY

GEOL 1 Physical Geology (CAN GEOL 2) 4.0 Units
A study of the factors and processes that have created and shaped the earth's surface, the geologic structures that comprise it, and the minerals and rocks that form it. Field trips are scheduled to areas of representative local geology. Three lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

GEOL 2 Historical Geology (CAN GEOL 4) 4.0 Units
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. (No prerequisite)

GEOL 3 Geology of the Western National Parks 3.0 Units
A survey of the physical and historical geology of the 12 distinct geologic provinces of the state. Greatest emphasis is placed on the most important structural, scenic, and economic details of each region, and upon the provinces of Southern California. Three lecture hours per week. CSU, UC. Offered Fall. (No prerequisite)

GEOL 9 Geology of the Western National Parks 3.0 Units
A survey course describing the geological features of the national parks and monuments of the Western United States, illustrating why these areas serve as important preserves of such features. Three lecture hours per week. CSU. Offered Spring. (No prerequisite)

GEOL 10 Descriptive Mineralogy 4.0 Units
A general study of the crystallography, properties, relationships, and genesis of minerals and mineral associations; the recognition of the most important ore-forming and rock-forming minerals by physical and chemical properties and tests in the hand-specimen. Two lecture, six laboratory hours per week. CSU, UC. (No prerequisite)

GEOL 12 Introduction to Mineralogy 3.0 Units
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. (No prerequisite)

GEOL 28 Special Topics
See Special Topics listing (Variable units).

GEOL 29 Independent Study
See Independent Study listing (1-3 units).

GUIDANCE AND DEVELOPMENTAL STUDIES

GUID 4C Special Issues in Personal Development 1.0-2.0 Units
A series of short-term offerings developed in response to the common interest of special groups. Opportunities for an examination of the elements associated with particular issues of personal development and for group interaction on various
topics of student concern. Offered Fall, Spring. (No prerequisite. Credit/ No Credit) This course may be taken four times.

GUID 4D  Introduction To The World of Work and Career Exploration  1.0 Unit
This group guidance class is designed for individuals who have little or no recent work experience and need a basic understanding of the world of work and the process of career and life planning. Topics will include current employment trends, essential skills needed to compete in today's labor market, preliminary assessment of personal learning styles, interests, skills, temperament, and values, and an introduction to career resource and exploration. This class will prepare students with limited or no work experience for GUID 4E. Three lecture hours per week for six weeks. CSU. (No Prerequisite. Credit/No Credit) This course may be taken two times.

GUID 4E  Career and Life Planning  2.0 Units
This group guidance course is designed to assist students in the career and life planning process through consideration of individual needs, personality, interests, abilities, and values. Emphasis will be placed on assessment, career research, goal setting, and decision making. There is a $15 materials fee which covers the cost of career assessments and class materials. A textbook is also required. Four lecture hours per week for nine weeks. CSU. (No prerequisite. Credit/No Credit) This course may be taken two times.

GUID 4G  College Success  1.0 Unit
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. It also provides the information on course selection, registration procedures, graduation and transfer requirements, and general information essential to college matriculation. Three lecture hours per week for six weeks. Offered Fall, Spring. (No prerequisite) This course may be taken two times.

GUID 4I  Orientation (EOPS)  0.5 Unit
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 5/PSYCH 5  Personal and Career Success  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. Three lecture hours per week. CSU. (No prerequisite)

GUID 6  Peer Advising Techniques  3.0 Units
This course is designed to provide program advising skills, catalog, registration and scheduling information as well as helping skills that will prepare peer advisors to assist other students. Three lecture hours per week. (No prerequisite Credit/ No Credit)

GUID 7  Learning Strategies and Study Skills  3.0 Units
This survey course assists students in assessing attitude, motivation, learning styles, and personality attributes that are necessary to the successful transition into college. Students will integrate this self awareness with theories and strategies that focus on the attainment of life long success in academic, professional and personal development. Topics include time management, study skills, test preparation, educational goal setting and planning, maintaining a healthy life style, and critical thinking skills. Three lecture hours per week. CSU. (No prerequisite)

GUID 51  Orientation to College  0.5 Unit
This class is designed to orient students to the college's programs, services, procedures, facilities, and standards. In addition, it acquaints students with career and transfer information, and provides basic guidelines for effective study. Nine lecture hours per half unit. (No prerequisite. Credit/No Credit)

GUID 60  LD Program Eligibility Assessment  0.5 Unit
This course is designed to assess students to determine eligibility for learning disabilities services according to statewide criteria. One-half lecture hour per week. This course will not apply to the Associate Degree. Offered Fall, Spring. (No prerequisite. Credit/ No Credit)

GUID 70  Alternative Learning Strategies  3.0 Units
This course provides students with learning disabilities the opportunity to identify and understand their individual learning profile. This course investigates the learning process, and introduces specific learning disability terms, concepts, and different learning modalities. Instruction is provided in alternative learning strategies and study techniques. (No prerequisite. Credit/ No Credit)

GUID 80  Career Orientation for the Disabled  1.0 Unit
This course is designed to offer disabled students a practical orientation in career selection and development of skills in job placement. Two lecture hours per week for nine weeks. (No prerequisite.)

GUID 101  Support Class for Learning Disabled Students  1.0 Unit
Designed as a support class for students with diagnosed learning disabilities. Techniques for handling the social and emotional aspects of learning disabilities will be discussed. Two lecture hours per week for nine weeks. This course will not apply to the Associate Degree. Offered Fall, Spring. (No prerequisite. Credit/ No Credit) This course may be repeated.
HISTORY

HIST 3A World History to 1500
(CAN HIST 14) 3.0 Units
To a greater extent than ever before, American citizens and their country are interdependent on the rest of the world, and not just the so-called “Western World.” We need to see ourselves as part of a world community—even if seen through a Western perspective. This course surveys the various civilizations of the world up to 1500 AD, stressing the inter-connectedness of various cultures even in ancient times. There will be an attempt to explore the “common denominators” among the several great civilizations, also stressing such universal issues as freedom. There is considerable emphasis on the Greek, Roman, and other civilizations most influential to us, while also dealing with the other civilizations and their inter-relationships. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

HIST 3B World History Since 1500
(CAN HIST 16) 3.0 Units
Course will cover the period of 1600 to the 1980’s 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 5A British History and Institutions 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 5B British History and Institutions 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 6A History of the Far East 3.0 Units
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 group- ing towards becoming a modern state, Japanese institutions and Japan’s swift rise to world power status in relation to the U.S. and China. Three lecture hours per week. CSU, UC. (No prerequisite)

HIST 6B History of the Far East 3.0 Units
Probe into the evolving power struggle between Japan, China, and the Western powers. Colonial areas examined and compared. World War II; power vacuums, the involvement of the U.S., the rise of communist power. Some attention to Southeast Asia. Emphasis on a comparison of contemporary China and Japan. Three lecture hours per week. CSU, UC. Offered Fall. (No prerequisite)

HIST 7 Hispanic American History 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 8A-B Latin American History 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 (8A) deals with the colonial era and the second semester (8B) 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 8A offered Fall, HIST 8B offered Spring. (No prerequisite)

HIST 13 Black American History 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. (No prerequisite)

HIST 14 Women in United States History 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. (No prerequisite)

HIST 16 History of the Indians of the United States 3.0 Units
A survey history of Native America from the time of contact (1500) to the present. Course will focus on Indians of North American, but will also focus to a lesser degree on American tribes, civilizations, and kingdoms of South America and Hia- wai. The anthropological background, settlement patterns, erosion 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 themes covered in the courses. Three lecture hours per week. CSU, UC. Offered Spring. (No prerequisite)

HIST 17A History of the United States to 1876
(CAN HIST 8) 3.0 Units
American civilization through the Civil War era. Native American European antecedents will be studied. Colonial and revolu- tionary periods will be analyzed as well as the formation of a new nation. Gender and race issues will be examined in light of nation building. Three lecture hours per week. CSU, UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite)
HIST H17A  Honors History of the United States to 1876 3.0 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 17B  History of the United States from 1876 (CAN HIST 10) 3.0 Units
A survey of the history of the United States from 1876 to the present. The course will focus on economic, political and social history in order to understand the casual factors that created the United States. Gender and ethnic history will be examined in light of the development of the United States and how diverse groups contributed to the historical reality of the United States. Three lecture hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite)

HIST H17B  Honors History of the 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)

HIST 18  History of Mexico 3.0 Units
Social, economic, and political history of Mexico from the pre-Columbian period up to the present. Present-day Mexican society as a product of the region's geographical position in relation to the rest of Latin America, Europe, and the United States. Enables the student to have a greater grasp of Mexico's development and its position in the world community. Three lecture hours per week. CSU. (No prerequisite)

HIST 20  History of California 3.0 Units
A survey of the history and geography of California. The course will cover all aspects of the development of what is today known as California, including those contributions made by Indians, Spanish, Mexican, and early Anglo inhabitants. Special emphasis will be laid upon critical issues of the present. This course satisfies in part the California history requirement for teachers in the primary grades. Three lecture hours per week. CSU, UC. (No prerequisite)

HIST 21  History of Russia 3.0 Units
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. (No prerequisite)

HIST 28  Special Topics
See special Topics listing (Variable units).

HIST 29  Independent Study
See Independent Study (1-3 units).

HIST 45  PTK Study Topic Seminar 1.0 Unit
This is a lecture series based on the Phi Theta Kappa International honor society study topic for each year. Faculty members will be invited to speak on their areas of expertise as they relate to those study topics. One lecture hour per week. CSU, UC. (No prerequisite. Credit/No Credit). This course may be taken four times.

HIST 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. (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 101  History (Field Trip) of Mojave Road 0.5 Unit
A driving tour of the Historic Mojave Road that will take students from Needles to Barstow. Along the route, students will visit sites in the Fort Paiute, Lanfair Valley, Camp Rock Springs, Cima, Soda Springs, Afton Canyon, and Camp Cady areas. Throughout the tour, students will learn of the historical and political significance and contributions to the development of the road, as well as reasons for intermittent conflicts leading to periods of abandonment. Led by noted regional historian Dr. Leo Lyman, this tour is rich in the culture and history of the Mojave Desert. Twenty seven laboratory hours (field trip with lectures enroute. (No prerequisite)
HONORS COURSES

CHEM H10  Honors Introductory Chemistry (CAN CHEM 6)  5.0 Units
A chemistry course for the well-prepared student. In addition to the concepts in non-honors Chemistry 10, the student will be expected to read and analyze original papers and perform and write up research designed to amplify analytical skills. Three lecture, six laboratory hours per week. CSU, UC. Offered Fall. (No prerequisite)

HIST H17A  Honors History of the United States to 1876 (CAN HIST 8)  3.0 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 H17B  Honors History of the 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 H5  Honors College Algebra (CAN MATH 10)  4.0 Units
A math course for the well-prepared student. Honors MATH 5 will include the study of exponents and radicals, theory of quadratic equations, simultaneous quadratic equations, complex numbers, equations of higher degree, inequalities, logarithmic and exponential equations, binomial theorem, matrices and determinants, partial fractions, sequences and series. Four lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite)

PHYSICS H1D  Honors Engineering Physics (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: Physics 1C)

POL SCI H1B  Honors American Government and Politics (CAN GOVT 2)  3.0 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. Three lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite)

INDEPENDENT STUDY

IND STUDY 29-49-99 Independent Study  1.0-3.0 Units
Individual study, research, or other projects under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and/or departmental recommendation. Designed to provide an opportunity for qualified students to do individual study in a selected area of a subject field. The student may take up to a maximum of six units of Independent Study course work in a particular discipline. Instructor is responsible for providing advice and guidance as required, and for evaluating student performance. (Prerequisite: Formulation of a written statement of purpose acceptable to the instructor and demonstration of sufficient background and skill to undertake the project)

Units are awarded according to the following formula of time committed to the course:

<table>
<thead>
<tr>
<th>Units</th>
<th>Hours per Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>54</td>
</tr>
<tr>
<td>2</td>
<td>108</td>
</tr>
<tr>
<td>3</td>
<td>162</td>
</tr>
</tbody>
</table>

CSU may limit the number of Independent Study units accepted.

UC maximum credit allowed: three and one-third semester credits per term, six units total, in any or all appropriate subject areas combined. Granting of course credit contingent upon an evaluation of the course outline by a UC campus.

JOURNALISM

JOURN 6  Introduction to Photojournalism  2.0 Units
This lab class is an introduction to the basics of photojournalism including basic photography skills, digital imaging, processing, composition, and production of written news stories. See cross-listing for Photography 6. Six laboratory hours per week. CSU. (No prerequisite) This course may be taken two times.
JOURN 8     Fundamentals Of Journalism     4.0 Units
Formerly JOURN 8A
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 campus newspaper three times in the semester and learn about career opportunities related to journalism including marketing, public relations and computer publishing. Three lecture, three laboratory hours per week. CSU. (No prerequisite)

JOURN 8L     Journalism Lab     1.0 Unit
This is a laboratory-only class which requires prior completion of Journalism 8. The student will learn advanced techniques of writing and editing. The student will learn and practice the basics of desktop publishing and increase their overall and increase their overall responsibility in production and distribution of the Victor Valley College student newspaper. Three laboratory hours per week. CSU. (Prerequisite: Journalism 8 with a grade of “C” or better.) This course may be taken four times.

JOURN 28     Special Topics
See Special Topics listing (Variable units).

JOURN 29     Independent Study
See Independent Study listing (1-3 units).

MATH H5     Honors College Algebra (CAN MATH 10)     4.0 Units
This course covers all the topics of the regular MATH 5 course, but the topics are covered in greater depth. Exponents and radicals, theory of quadratic equations, simultaneous quadratic equations, complex numbers, equations of higher degree, inequalities, logarithmic and exponential equations, binomial theorem, matrices and determinants, partial fractions, sequences and series. Four lecture hours per partial fractions, sequences and series. Four lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite)

MATH 16     Pre-Calculus Mathematics (CAN MATH 16)     5.0 Units
The course includes functional notation; graphs and inverses of linear, polynomial, and rational functions; rational exponents; functions, systems of linear equations; trigonometric functions; trigonometric identities; right angle trigonometry; complex numbers; conic sections; binomial theorem; induction. Five lecture hours per week. CSU, UC (UC credit limitation). (Prerequisite MATH 3. Completion of MATH 16 is equivalent to completion of both MATH 4 and MATH 5.)

MATH 20     Introduction To Statistics (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 fields. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: MATH 3 with a grade of “C” or better, or the equivalent.)

MATH 26A     Analytic Geometry and Calculus (CAN MATH 18)     5.0 Units
Limits and continuity, differentiation, integrations, the fundamental theorem of calculus, applications of differentiation and integration. Five lecture hours per week. CSU, UC. Offered Fall, Spring. (Prerequisites: MATH 4 and 5 with a grade of “C” or better.)

MATH 26B     Analytic Geometry and Calculus (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 26A with a grade of “C” or better.)

MATH 26C     Analytic Geometry and Calculus (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, Stoke's Theorem, and applications. Five lecture hours per week. CSU, UC. Offered Fall. (Prerequisite: MATH 26B with a grade of “C” or better.)
MATH 27 Differential Equations (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 26B with a grade of “C” or better)

MATH 28 Special Topics
See Special Topics listing (Variable units).

MATH 29 Independent Study
See Independent Study listing (1-3 units).

MATH 31 Linear Algebra 3.0 Units
An introduction to linear algebra that complements 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. (Prerequisite: Math 5 with a grade of “C” or better)

MATH 32 The Ideas Of Math (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 on simple polynomial functions. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: MATH 3 with a grade of “C” or better)

MATH 38 Cooperative Education
See Cooperative Education listing (1-8 units).

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. (Prerequisite: MATH 167) CSU. (No prerequisite) This course may be taken two times.

MATH 50L Laboratory-Enhanced Study for Math 50 0.5 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. Two hours individualized instruction per week for nine weeks. (Prerequisite: completion of Math 167 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 English 50 with a grade of “C” or better)

MATH 159 Pre-Algebra 3.0 Units
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. (Prerequisite: Math 167)

MATH 167 Basic Mathematics Skills 3.0 Units
Provides work in operations with whole, decimal, and fractional 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.

MEDIA ARTS

MEART 20 Writing for Media Arts 3.0 Units
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. CSU (No prerequisite). This course may be taken two times.

MEART 30 Game Design Interface Design 3.0 Units
This course investigates user interface design for game design production. Topics include the use of DirectX and Direct3D in game engine and user interface I/O; user input devices; front-end visual game design tools, stock game engines; basic game programming concepts; and the balance of game performance and player immersion. Two lecture, three laboratory hours per week. CSU (Prerequisite: MEART 30). This course may be taken three times.

MEART 31 Game Engine Programming 3.0 Units
This course explores game engine programming for game design production. Topics include: the use of DirectX, Direct3D, and Win 32 in game engine design; algorithms, data structures, and memory management issues relevant to game engine design; the history and future of game engine programming; front-end visual game design tools; and the use of stock game engines. Two lecture, three laboratory hours per week. CSU (Prerequisite: MEART 31). This course may be taken three times.

MEART 32 Multi-User Game Design 3.0 Units
This course explores distributed multi-user game programming and design for game production. Topics include: the use of DirectX, Direct3D, and Win 32 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. CSU (Prerequisite: MEART 30). This course may be taken three times.
MEART 34 Artificial Intelligence 3.0 Units
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. CSU (Prerequisite: MEART 33). This course may be taken three times.

MEART 35 Game Production and Workflow 3.0 Units
This is a course in game design project planning and production through hands-on experience. Students will work in teams to design and complete a game project, providing each student with portfolio preparation. Two lecture, three laboratory hours per week. CSU (Prerequisite: MEART 34). This course may be taken three times.

MEART 35 Game Production and Workflow 3.0 Units
This is a course in game design project planning and production through hands-on experience. Students will work in teams to design and complete a game project, providing each student with portfolio preparation. Two lecture, three laboratory hours per week. CSU (Prerequisite: MEART 34). This course may be taken three times.

MEART 41 Animation II 3.0 Units
This course uses a guided digital studio approach in a close analysis of the practical production techniques and technologies in 3D modeling and animation. Students will complete a combination of exercises, individual and group projects. Two lecture, three laboratory hours per week. CSU (Prerequisite: MEART 40). This course may be taken three times.

MEART 42 Digital Character Animation 3.0 Units
This course is an advanced study in digital character animation and feature-length digital media production. This course explores the relationships between anatomy, motion, weight, and timing through a balanced combination of exercises, individual and group projects. Two lecture, three laboratory hours per week. CSU (Prerequisite: MEART 42). This course may be taken three times.

MEART 43 Animation Programming 3.0 Units
This course is a close analysis of animation programming applications to automate 3D animation production. Course topics include programmed modeling, deformation, posing and kinematics. Two lecture, three laboratory hours per week. CSU (Prerequisite: MEART 42). This course may be taken three times.

MEART 44 Animation Technology Applications 3.0 Units
This course is a close analysis of animation technology. Course topics include the history of animation technologies, environments, languages, asset control, and pipeline management. Two lecture, three laboratory hours per week. CSU (Prerequisite: MEART 44). This course may be taken three times.

MEART 45 Render Management 3.0 Units
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. CSU (Prerequisite: MEART 44). This course may be taken three times.

MICROBIOLOGY
MICRO 1 General Microbiology (CAN BIOL 14) 5.0 Units
Introduction to bacteria and to parasitic forms of protozoa, helminths, and fungi. Examination of morphological, physiological, and epidemiological characteristics of these organisms and of the immune response produced by their hosts. Laboratory diagnostic procedures for culture and identification of pathogenic bacteria and instruction in basic serological and immunological technique. Three lecture, six laboratory hours per week. CSU, UC. Offered Fall, Spring, Summer. (Prerequisites: CHEM 10 or CHEM 1A; BIO 1 or 2 or 3 or 10; all completed with a grade of C or better)

MUSIC
MUSIC 1 Fundamentals Of Music 3.0 Units
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, and for those who wish to write music. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

MUSIC 2A Music Theory - Diatonic Practice, 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: Music 1 or equivalent information as demonstrated by pretest; concurrent enrollment in Music 4A)

MUSIC 2B Music Theory - Diatonic Practice, Part II 3.0 Units
Continuation of Music 2A, comprehensive theory-musicianship study centering on basic fourpart diatonic harmonic practices. Use of triads in all positions, principles of voice leading, harmonic progression, 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: Music 1 or equivalent information as demonstrated by pretest; concurrent enrollment in Music 4B)
MUSIC 3A  Advanced Theory - Chromatic Practice, Level I

3.0 Units

The study of chromatic harmonic practices, including all types of seventh chords, dominant seventh and leading tone seventh functions, secondary dominants and secondary leading tone chords, altered non-harmonic tones, modulation to closely related keys, and borrowed chords. Continued development of basic musicianship skills, including visual and aural seventh chord recognition, rhythmic reading, melodic, contrapuntal and harmonic dictation. Emphasis on individualized programmed instruction, including the use of computers, small group and other interactive teaching aids. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: Completion of Music 2A; concurrent enrollment in Music 4C)

MUSIC 3B  Advanced Theory - Chromatic Practice, Level II

3.0 Units

Extends the concepts in Music 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 Music 3A)

MUSIC 4A  Sight Singing/Ear Training Laboratory, Level I

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 3A. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: Music Theory 3A)

MUSIC 4B  Sight Singing/Ear Training 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 2A. Three laboratory hours per week. CSU, UC. (No prerequisite) (Credit/ No Credit)

MUSIC 4C  Sight Singing/Ear Training Laboratory, Level III

1.0 Unit

Self-paced, competency based, comprehensive individualized training in sight singing, developing mastery in rhythmic sight reading and playing, pitch matching and matching notation to inner hearing, and notating rhythmic and melodic dictation. Drill and practice through computer generated exercises using Music Lab software on the student's own computer and practice and testing in the college Music Computer Lab. Additional practice in small group sessions as needed. Student will pass five quiz levels in each of eight skills on the computer to receive credit for the appropriate course section. This course is open to anyone desiring to learn basic practical music reading skills; it is required of students taking Music Theory 3B. Three laboratory hours per week. CSU, UC. (Prerequisite: Music 4B) (Credit/ No Credit)

MUSIC 4D  Sight Singing/Ear Training Laboratory, Level IV

1.0 Unit

Self-paced comprehensive individualized training in sight singing, developing mastery in rhythmic sight reading and playing, pitch matching and matching notation to inner hearing, and notating rhythmic and melodic dictation. Drill and practice through computer generated exercises using Music Lab software on the student's own computer and practice and testing in the college Music Computer Lab. Additional practice in small group sessions as needed. Student will pass five quiz levels in each of eight skills on the computer to receive credit for the appropriate course section. This course is open to anyone desiring to learn basic practical music reading skills; it is required of students taking Music Theory 4D. Three laboratory hours per week. CSU, UC. (Prerequisite: Music 4C) (Credit/ No Credit)

MUSIC 10 Introduction to Music

3.0 Units

A non-technical course open to all students. An introduction to the forms and styles of the music of Western cultures with a stress on intensive listening and attendance at several concerts. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite.)

MUSIC 11 History Of Music In Western Culture

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.)

MUSIC 12 Music In America

3.0 Units

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.)

MUSIC 13 Jazz: A History

3.0 Units

A survey of jazz from 1900 to the present, including what jazz is, African and European heritages, blues, Dixieland, ragtime, boogie woogie, swing, bop, cool, funky, gospel, third stream, jazz/rock, and free form. Lectures and structured listening and viewing. Three lecture hours per week. CSU, UC. (No prerequisite.)
MUSIC 15A  Elementary Piano (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. Offered Fall, Spring. (No prerequisite)

MUSIC 15B  Elementary Piano (CAN MUS 22 = 15 A-B)  1.0 Unit
This course is a continuation of Music 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)

MUSIC 16A  Intermediate Piano  1.0 Unit
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)

MUSIC 16B  Intermediate Piano  1.0 Unit
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)

MUSIC 18A  Applied Music - Voice  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.

MUSIC 18B  Applied Music - Piano  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.

MUSIC 18C  Applied Music-Guitar  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.

MUSIC 18D  Applied Music - Upper Strings  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.

MUSIC 18E  Applied Music - Low Strings  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.
MUSIC 18F Applied Music - High Brass 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.

MUSIC 18G Applied Music - Low Brass 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.

MUSIC 18H Applied Music - Reeds 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.

MUSIC 18I Applied Music - Woodwinds 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.

MUSIC 18J Applied Music - Percussion 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.

MUSIC 20 Women’s Choir 1.0 Unit
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.

MUSIC 21 The College Singers 3.0 Units
A select chamber choral ensemble of mixed voices to perform repertoire at various college and community functions. Repertoire includes significant choral music from all periods of music history, including motets and madrigals, part songs, masses and cantatas with orchestra, 20th century choral songs, and spirituals, vocal jazz and Broadway arrangements. Music is most often performed in the original languages. Emphasis on development of the total choral musicianship skills of each singer. Group may tour out of state or to Europe. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: Solo audition. Applicant should possess strong basic choral/vocal skills and experience in choral singing i.e. ability to sing on pitch with a well supported, clear choral tone; strong ear able to retain and accurately recall parts learned; basic sight reading skills; team player willing to take direction. Number of singers accepted in any section may be limited by the requirements of part balance and the repertoire planned for that semester.) (Grade option) This course may be taken four times.

MUSIC 22A-B-C-D Musical Theatre Lab 1-1-1-1 Units
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.

MUSIC 28 Special Topics
See Special Topics listing (Variable units).

MUSIC 29 Independent Study
See Independent Study listing (1-3 units).
MUSIC 30  Instrumental Ensemble  2.0 Units
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 additional opportunity for improvement and development of musical skills. Three laboratory hours per week. CSU, UC. (No Prerequisite) This course may be taken four times.

MUSIC 31  Studio Jazz Band  1.0 Unit
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, and an emphasis on performance practice skills will be employed. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No Prerequisite.) This course may be taken four times.

MUSIC 34  College Symphonic Band  1.0 Unit
This course will emphasize the performance of standard college wind literature. Proper playing and performance technique will be stressed. Extensive 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. (No Prerequisite.) This course may be taken four times.

MUSIC 36  Symphony Orchestra  2.0 Units
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.

MUSIC 38  Cooperative Education
See Cooperative Education listing (1-8 Units).

MUSIC 41  Beginning Voice Production  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 leadership, sales, coaching, or courses in speech communication and acting. Three laboratory hours per week. Offered Fall, Spring. CSU, UC. (No prerequisite)

MUSIC 42  Intermediate Voice Class  1.0 Unit
Application of the vocalization techniques of Music 41 to serious 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: Music 41 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.

MUSIC 55  Master Arts Chorale  1.0 Unit
A large choral ensemble dedicated to the performance of major choral works from all musical periods, often with orchestra. Group may tour from time to time in the United States and abroad. Membership open by audition to all students as well as to members of the community. Three laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisite: Solo audition to determine ability to match pitch, sing in tune, carry a harmony part, level of music reading. Prior choral experience in a high school, college/ university, community or church choir desirable.) (Credit/ No Credit) This course may be taken four times.

MUSIC 56A-B-C-D  Summer Choir  1-1-1-1 Units
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.

MUSIC 60A  Beginning Guitar  1.0 Unit
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.)

MUSIC 60B  Beginning Guitar  1.0 Unit
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.)

MUSIC 61  Youth String Orchestra  0.5 Unit
This course will be a study and performance of standard orchestral literature composed for the beginning and intermediate level string player. Proper left hand position technique, bow technique, and performance practices will be emphasized. One and one half laboratory hours per week. CSU, UC. Offered Fall, Spring. (Prerequisites: Students must audition for Music 61. Alternative course is Music 30.) This course may be taken four times.
**MUSIC 63** Guitar Ensemble 1.0 Unit
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. (No Prerequisite.) This course may be taken four times.

**MUSIC 65** Jazz Improvisation 2.0 Units
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, UC (UC credit limitation). (Prerequisite: Demonstrated ability at an acceptable level of proficiency, as evidenced by audition.) This course may be taken four times.

**MUSIC 66** Victor Valley College Pep Band 1.0 Unit
The study and performance of marching and pep band literature will be emphasized. Proper playing and performance techniques will be stressed. Extensive 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.

**NURSING**

**NURS 20** 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 21 by students admitted to the Associate Degree nursing (ADN) program. CSU (No prerequisite: Corequisite: NURS 21)

**NURS 21** Nursing Process 1 10.0 Units
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. (Prerequisite: Anatomy, Physiology, and Microbiology completed with a "C" or better. CSU. (Corequisite: NURS 20)

**NURS 22** Nursing Process 2 9.0 Units
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 21)

**NURS 23** Nursing Process 3 9.0 Units
The Nursing Process applied to clinical 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 22)

**NURS 24** Nursing Process 4 9.0 Units
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 23)

**NURS 25** 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 per week. CSU. (Prerequisite: Current California Licensure as an LVN and Physiology and Microbiology [Mandated - State of California].)

**NURS 45** 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. Offered Spring. (Prerequisite: NURS 22 or equivalent with a “C” or better, or permission of the Nursing Program Director)

**NURS 46** Patient Assessment 2.0 Units
An overview of patient assessment skills, including physical, psychological and sexual aspects. Four lecture hours per week for nine weeks. (No prerequisite)

**NURS 48** Special Topics
See Special Topics listing (Variable units).

**NURS 49** Independent Study
See Independent Study listing (1-3 units).

**NURS 51A/B/C/D Individualized Instruction 0.5-1.0 Unit**
This course is designed to be taken by student choice or instructor referral to improve skills and/ or knowledge in a specific area of nursing. Supervised time will be spent with computers, audio-visual materials, and nursing and respiratory
therapy laboratory materials and equipment to meet specific objectives. Thirty-six hours of lab time are required for each unit of credit. (Prerequisite: Concurrent enrollment in Nursing 31, 32, 33, 34, 41, 42 or 48. Credit/No Credit)

NURS 101A/B/C/D RN Refresher Course 1-1-1-1 Unit This course is designed to be taken by registered nurses who have been out of active nursing for a period of time and who desire or need to review nursing knowledge and skills prior to re-entering nursing. This course will consist of theory and laboratory skills practice. Supervised time will be spent with computer programs, audio-visual materials, nursing lab resources and equipment to meet specific learning objectives in common diseases and health problems. Module A covers the nursing process, physical assessment and pharmacology. Module B covers common diseases and health problems. Module C covers procedures, equipment, legal and ethical issues. Module D covers gerontology, psych-social concepts, and one area of special focus as determined with the coordinator. The satisfactory completion of Module A, B, C or D will satisfy the Board of Registered Nursing Continuing Education requirement. This course will not apply to the Associate Degree. (Prerequisite: Prior or current RN license; approval of program coordinator. Successful completion of Module A for Module B, Module B for Module C and Module C for Module D. Credit/No Credit) This course may be taken four times.

NURS 102 RN Refresher Clinic 1.5 Units
This course is the clinical component of the RN refresher course and is designed to be taken by registered nurses who have been out of active nursing for a period of time and who desire or need to review and practice nursing knowledge and skills prior to re-entering active nursing. Preceptored clinical practice will be scheduled with a local hospital giving the student hands-on supervised nursing experience. This will prepare the nurse for re-entering active nursing practice. Eighty-one hours of laboratory time is required. This course will not apply to the Associate Degree. (Prerequisite: Successful completion of RN refresher course; current CPR card; malpractice insurance; current California RN license; freedom from TB; physical exam and immunization consistent with participating facility policy. Credit/No Credit) This course may be taken four times.

OCEAN 10 Oceanography 3.0 Units
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)

OCEANOGRAPHY

ORNAMENTAL HORTICULTURE

OH 15 Greenhouse Production and Management 3.0 Units
A study of commercial greenhouse operations with emphasis on vegetable and bedding plant production, foliage and cut flowers common to interior landscaping and florist trade. Topics include greenhouse structures, soil mixing, seed and tip cutting production, requirements needed for plant growth and maintenance of nursery stock. Diseases and pests common in the greenhouse are examined. Careers in the wholesale and retail market are identified. Two lecture, three laboratory hours per week. CSU. (No prerequisite)

OH 17 Landscape Construction 3.0 Units
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)

OH 19 Plant Pest and Disease Control 3.0 Units
The identification of symptoms and damage to ornamental, fruit, and vegetable plants caused by pests, disease, or cultural problems along with methods and materials of control. California Pest Control licensing and legal responsibilities will also be covered. Laboratory activity will focus on applied methods of pest and disease control as well as corrective cultural practices. Two lecture, three laboratory hours per week. CSU. (No prerequisite) This course may be taken three times.

OH 31 Fundamentals of Horticulture 3.0 Units
General course in ornamental horticulture. An overview of plant identification, propagation techniques, plant growth, pest and disease control, landscape design and maintenance, and floral design. Employer expectations of the ornamental horticulture industry are identified. Two lecture, three laboratory hours per week. CSU. (No prerequisite)

OH 32 Plant Propagation 3.0 Units
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)

OH 34 Basic Floral Design 2.0 Units
Introduction to the theory of floral design, including principles and elements of design, color theory, identification of plant materials and preparation and care of plant material. Emphasis is placed on “hands on” floral designs, boutonnieres and corsages. One lecture, three laboratory hours per week. CSU. (No prerequisite)
OH 35 Landscape Irrigation  2.0 Units
Formerly Irrigation Systems
Irrigation system design with emphasis on landscape, nursery and specialized systems, materials and installation. One lecture, three laboratory hours per week. CSU. (No prerequisite)

OH 36 Landscape Maintenance Fundamentals  2.0 Units
Maintenance of trees, shrubs and ground covers, cultural requirements, pruning, fertilizing, and irrigation. Repair of irrigation systems and equipment. One lecture, three laboratory hours per week. CSU. (No prerequisite)

OH 37 Floral Design II  2.0 Units
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.

OH 39 Landscape Design  3.0 Units
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.

OH 40 Plant Identification  3.0 Units
Identification, growth habits and cultural requirements for plants common to the California landscape. Emphasis is placed on plants that have adapted to the climate of the high desert and ones that are drought tolerant. Two lecture, three laboratory hours per week. CSU. (No prerequisite.)

OH 43 Landscape and Nursery Management  3.0 Units
A combination course covering the basics of landscaping and nursery management. Three lecture hours per week. CSU.

PHILOS 7 Introduction To Critical Thinking  3.0 Units
Formerly Philosophy 12.
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, Summer. (Prerequisite: ENGL 1A)

PHILOS 8 Contemporary Moral Issues (CAN PHIL 4)  3.0 Units
Introduction to the basic concepts, theories, and tools of moral philosophy: relativism, subjectivism, egoism, utilitarianism, Kantian ethics, virtue ethics, contract ethics, feminist ethics. Each semester applications will be selected from one of the following areas of current moral concern: biomedical issues, the environment, business and the economy, personal and social relationships. Three lecture hours per week. CSU, UC. Offered Fall or Spring. (No prerequisite. Eligibility for ENGL 1A recommended)

PHILOS 9 Introduction to Logic (CAN PHIL 6)  3.0 Units
Introduction to the philosophical study of arguments; language and reasoning, argument analysis and evaluation, induction, deduction, fallacies, elementary symbolic logic, probability, and practical reasoning. Required assignments are completed by computer, either independently or in a campus computer lab. CSU, UC. Offered Spring. (No prerequisite.)

PHILOS 20A 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. (No prerequisite.)

PHILOS 20B 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. (No prerequisite. Eligibility for ENGL 1A recommended.)

PHILOS 28 Special Topics
See Special Topics listing (Variable units).

PHILOS 29 Independent Study
See Independent Study listing (1-3 units).

PHOTOGRAPHY

PHOTO 1A Basic Photography (CAN ART 18)  3.0 Units
Photo 1A introduces and stresses mastery of the basics of black and white photography. A strong foundation will be established.
by covering metering, exposure, film and print developing. Additional topics of composition and creative expression will be covered. Important photographers' work as well as the history of photography will be introduced in this class. Students furnish their own cameras which have manual controls for the light meter, apertures and shutter speeds. Two lecture, three laboratory hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

PHOTO 1B Intermediate Photography 3.0 Units
This course will concentrate upon the use of 35mm format cameras. The use of exposure meters, lighting techniques, and black and white filters, RC and fiber base papers will be incorporated with individual projects. Two lecture, three laboratory hours per week. CSU, UC. Offered alternate semesters. (No prerequisite)

PHOTO 2 Advanced Photography 3.0 Units
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)

PHOTO 3 Alternative Imaging Process 3.0 Units
This course emphasizes special effects that may be gained by manipulation of black and white photo-sensitive materials and hand coloring. Two lecture, three laboratory hours per week. CSU. Offered alternate years. (No prerequisite)

PHOTO 4 Basic Color Photography 3.0 Units
The theoretical and practical work in using color positive (slides) and negative film. Students will gain experience in using filters for various lighting situations. Color processors and Polaroid systems may be explored. Two lecture, three laboratory hours per week. CSU. Offered alternate years. (No prerequisite)

PHOTO 5 Portraiture 2.0 Units
Designed for the advanced student wishing to specialize in portrait photography. The course includes outdoor portraiture, studio portraiture, and daily grouping. Students will receive individual instruction with posing, lighting techniques, and direction in the print room. Two lecture, six laboratory hours per week for nine weeks. CSU. Offered alternate years. (No prerequisite)

PHOTO 6 Introduction to Photojournalism 2.0 Units
This lab class is an introduction to the basics of photojournalism including basic photography skills, digital imaging, processing, composition, and production of written news stories. See cross-listing for Journalism 6. Six laboratory hours per week. CSU. (No prerequisite.) This course may be taken two times.

PHOTO 28 Special Topics
See Special Topics listing (Variable units). Offered Fall, Spring.

PHOTO 29 Independent Study
See Independent Study listing (1-3 units). Offered Fall, Spring.

PHOTO 38 Cooperative Education
See Cooperative Education listing (1-8 units).

PHOTO 50 Commercial Photographic Applications 2.0 Units
This course will introduce the application of photographic imaging to the commercial marketplace. It will stress the use of photography as it applies to the graphic design field as well as portraiture, product and editorial applications. Business principles of this field will also be covered. Two lecture, three laboratory hours for nine weeks. (No prerequisite) This course may be taken three times.

PHYSICAL EDUCATION

PE 2 Tennis 1.0 Unit
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 5 Adaptive Physical Exercise 1.0 Unit
Individualized fitness program designed for those with limitations. Designed to maintain or increase fitness levels. Repetition of the course provides the opportunity for increased skill development. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option) This course may be taken four times.

PE 6A Physical Fitness 1.0 Unit
Formerly PE 6.
An exercise course designed to emphasize fitness by offering the student a variety of exercises and aerobic work which can be used to maintain fitness throughout life. Repetition provides the opportunity for increased skill development. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option) This course may be taken four times.

PE 6B Physical Fitness II 1.0 Unit
An exercise course for those students who have been consistently participating in a fitness program for 9-12 months for approximately three hours a week. The course is designed to emphasize the components of fitness by offering the student a variety of exercises and aerobic workouts at an intermediate level. Repetition of the course provides the opportunity for increased skill development. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring. Credit/Grade option. This course may be taken four times.

PE 6C Weight Training 1.0 Unit
Techniques of weight training. The principles of strength development, protein 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 6D  Weight Lifting II  1.0 Unit
A weight lifting course for those students who have been consistently participating in a weight lifting program for 6-12 months for approximately three hours a week. This course is designed to emphasize continued individual growth in the areas of body building, body sculpturing and strength at an intermediate or above level. Repetition of the course provides the opportunity for increased skill development. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring. Credit/Grade option. This course may be taken four times.

PE 6E  Aerobic Weight Training  1.0 Unit
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 improvements 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 7  Golf  1.0 Unit
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 10A  Basketball  1.0 Unit
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 10B  Volleyball  1.0 Unit
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 10C  Softball  1.0 Unit
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 10D  Soccer  1.0 Unit
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 10E  Intermediate Modern Dance  1.0 Unit
Development of intermediate knowledge and skill in modern dancing, commonly used in theatrical and musical productions. To include theatrical audition and stage techniques. See cross listing for TA 21A. Three laboratory hours per week. CSU, UC. Offered Fall, Spring, Summer. Credit/Grade option. This course may be taken four times.

PE 21A  Beginning Modern Dance  1.0 Unit
Development of basic knowledge and skill in modern dancing, commonly used in theatrical and musical productions. See cross listing for TA 21A. Three laboratory hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option) This course may be taken four times.

PE 21B  Beginning Tap  1.0 Unit
Development of basic knowledge and skill in tap dancing, commonly used in musical productions and theater. See cross listing for TA 21C. Three laboratory hours per week. (No prerequisite. Credit/Grade option) This course may be taken four times.

PE 10G  Baseball  1.0 Unit
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 10H  Football Techniques and Conditioning  1.0 Unit
Course will include drills and exercises to develop the skills, techniques, and conditioning essential for participation in the game of football. Six laboratory hours per week for nine weeks. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option) This course may be taken four times.

PE 12  Contemporary Problems in Personal and Community Health  3.0 Units
An introductory course emphasizing the scientific basis for making rational decisions on contemporary health problems of personal and social significance. Course includes personal nutrition, exercise, reproduction, and disease control, as well as a review of current scientific knowledge on problems of drug use, AIDS, abortion and other issues of community health. See cross listing for AH 12. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

PE 13  Self Defense  1.0 Unit
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 20  History and Appreciation of Dance  3.0 Units
Origin, growth, and development of dance (in all forms) since the beginning of man. Man’s philosophies as related to the development of dance. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite. Credit/Grade option) This course may be taken four times.
PE 21D  Intermediate Tap  1.0 Unit
Development of intermediate knowledge of skill in tap dancing, commonly used in musical productions and theater. See cross listing for TA 21D. Three laboratory hours per week. (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.

PE 21M  Beginning Jazz Dance  1.0 Unit
Development of knowledge and skill in jazz dancing, commonly used in musical productions as well as social occasions. Three laboratory hours per week. See cross listing for TA 21M. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option) This course may be taken four times.

PE 21N  Intermediate Jazz Dance  1.0 Unit
Development of intermediate knowledge and skill in jazz dancing commonly used in musical productions as well as social occasions. To include theatrical auditions and stage techniques. See cross listing for TA 21N. Three laboratory hours per week. CSU, UC. Offered Fall, Spring, Summer. Credit/Grade option This course may be taken four times.

PE 21Q  Beginning Ballet  1.0 Unit
Development of basic knowledge and skill in ballet, commonly used in theatrical and stage productions. See cross listing for TA 21Q. Three laboratory hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option) This course may be taken four times.

PE 21R  Intermediate Ballet  1.0 Unit
Development of intermediate knowledge and skill in ballet dancing, commonly used in theatrical and stage productions. To include theatrical audition and stage techniques. See cross listing for TA 21R. Three laboratory hours per week. (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.

PE 21T  Dance Production  3.0 Units
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.

PE 22  Beginning Ballroom Dance  1.0 Unit
Techniques, styles and rhythms of social dances from selected historical periods. Emphasis on exploring the movement characteristics of the dances through dancing. Three laboratory hours per week. (No prerequisite. Credit/Grade option) This course may be taken four times.

PE 23  Sports Officiating  3.0 Units
This class provides practical experience with an emphasis on knowledge and interpretation of rules to include: softball, baseball, soccer, volleyball, and basketball. The rules and mechanics of officiating will be covered. Two lecture, three laboratory hours per week. CSU (No prerequisite)

PE 28  Special Topics
See Special Topics listing (Variable units).

PE 30  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 AH 20. Offered Fall, Spring. (No prerequisite. Interest and/ or experience in athletics and sports recommended.)

PE 31  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 AH 21. Three lecture, one laboratory hour per week. CSU. (Prerequisite: PE 30 or AH 20 Athletic Training I, or equivalent.)

PE 35  Beginning Aqua Aerobics  1.0 Unit
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 40  Fundamentals of Track and Field  1.0 Unit
Instruction in rules and techniques, as well as practice in skills, basic to successful performance in selected track and field events. Three laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Credit/Grade option) This course may be taken three times.

PE 42  Sports Psychology  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 43  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)
PE 44 Developmental Movement For Children 1.0 Unit
Study of motor development from birth through early adolescence to provide a total picture of the motor development process. Three lecture hours per week for six weeks. CSU. Offered Fall, Spring. (No prerequisite. Credit/ Grade option)

PE 47 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 48 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 49 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 50 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 51 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 52 Sports Psychology 1.0 Unit
An overview of the dynamics and application of psychology in sports. Three lecture hours per week for six weeks. Offered Fall, Spring. (No prerequisite. Credit/ Grade option)

PE 53 Care and Prevention Of Athletic Injuries 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 55 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 56 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 57 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 58 Cheerleading Theory 1.0 Unit
A course designed to train students in the basic skills, rules, and strategies of college cheerleading. Combines physical conditioning, dance technique, partner stunting, and pyramid building in preparation for game performances. Also designed to plan and implement promotion of school spirit on campus. Six laboratory hours per week. (No prerequisite.) This course may be taken three times.
isotonic, isometric), cardiovascular conditioning and proprioceptive exercises. See cross listing for AH 77. Eighteen laboratory hours per week. (Prerequisite: PE 30 or AH 20 Athletic Training I, or equivalent.) This course may be taken four times.

**PHYSICAL SCIENCE**

**PHY SCI 1 Principles Of Physical Science 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)

**PHY SCI 14 Environment and Energy 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)

**PHY SCI 15 Frontiers Of Science 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 astronautics, UFOs. Within this context, basic physical laws and concepts will be developed. Three lecture hours per week. CSU, UC. (No prerequisite)

**PHY SCI 28 Special Topics**
See Special Topics listing (Variable units).

**PHY SCI 38 Cooperative Education**
See Cooperative Education listing (1-8 units).

**PHYSICS**

**PHYSICS 1A Engineering Physics (Mechanics Of Solids) (IA-B-C-HD: CAN PHYS SEQ B) 4.0 Units**
Vectors, rectilinear motion, motion in a plane, particle dynamics, work and energy, conservation laws, collisions, rotational kinematics and dynamics. Three lecture, three laboratory/ discussion hours per week. CSU, UC (UC credit limitation). Offered Fall. (Prerequisite: High school physics, or PHYSICS 10, or equivalent; MATH 26A. MATH 26A may be taken concurrently)

**PHYSICS 1B Engineering Physics (Mechanics Of Fluids, Heat and Sound) (IA-B-C-HD: CAN PHYS SEQ B) 4.0 Units**
Equilibrium of rigid bodies, oscillations, gravitation, fluid statics and dynamics, waves in elastic media, sound, and thermodynamics. Three lecture, three laboratory/ discussion hours per week. CSU, UC (UC credit limitation). Offered Spring. (Prerequisite: PHYSICS 1A and MATH 26B. MATH 26B may be taken concurrently)

**PHYSICS 1C Engineering Physics (Electricity and Magnetism) (CAN PHYS 12) and (IA-B-C-HD: CAN PHYS SEQ B) 4.0 Units**
Charge and matter, the electric field, electric potential, capacitors and dielectrics, direct current and resistance, 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: PHYSICS 1B and MATH 26C. MATH 26C may be taken concurrently)

**PHYSICS H1D Honors Engineering Physics (Light and Modern Physics) (CAN PHYS 14) and (IA-B-C-HD: CAN PHYS SEQ B) 4.0 Units**
The nature and propagation of light, reflection and refraction, interference, diffraction, gratings and spectra, relativity, elements of quantum physics, waves and particles. See Honors Program listing for further information on admission to the Honors Program. Three lecture, three laboratory/ discussion hours per week. CSU, UC (UC credit limitation). Offered Spring semester in odd numbered years.

**PHYSICS 2A General Physics (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.

**PHYSICS 2B General Physics (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 Physics 2A; MATH 26B. MATH 26B may be taken concurrently)

**PHYSICS 10 Introductory Physics 4.0 Units**
An introduction to general 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.)

**PHYSICS 28 Special Topics**
See Special Topics listing (Variable units).

**PHYSICS 29 Independent Study**
See Independent Study listing (1-3 units).

**PHYSICS 38 Cooperative Education**
See Cooperative Education listing (1-8 units).
PHYSIOLOGY

PHYSIO 1  Human Physiology (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 homeostasis. The laboratory will include demonstrations and experiments to support basic physiological concepts. Included are experiments selected specifically for instruction in interpretation of physiological tests and diagnostic testing procedures. Three lecture, six laboratory hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring. (Prerequisite: One college chemistry class (equivalent to CHEM 10 or CHEM 1A); and one college biology class (equivalent to BIOLOGY 1 or BIOLOGY 10); and ANATOMY 2, all with a grade of “C” or better.)

PHYSIO 2  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 10 or CHEM 1A); and one college biology class (equivalent to BIOLOGY 1 or BIOLOGY 10); and ANATOMY 2, all with a grade of “C” or better.)

POLITICAL SCIENCE

POL SCI 1A  Introduction to Political Science 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. (No prerequisite)

POL SCI 1B  Introduction to American Government and Politics (CAN GOVT 2) 3.0 Units
Analysis of the Constitution and study of its historical development. Surveys the powers, structure, and operation at the national, California state, and local levels with emphasis upon the national level. Examination of the causes, consequences, and possible solutions to important problems in contemporary America. Three lecture hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite)

POL SCI H1B  Honors American Government and Politics (CAN GOVT 2) 3.0 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. Three lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite)

POL SCI 2  Comparative Government 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)

POL SCI 3  State and Local Government 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)

POL SCI 10  Contemporary World Affairs 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 Spring. (No prerequisite)

POL SCI 20  Leadership 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.

POL SCI 28  Special Topics
See Special Topics listing (Variable units).

POL SCI 29  Independent Study
See Independent Study listing (1-3 units).

POL SCI 30  Introduction to Paralegalism 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 ter-
minology, 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. (No prerequisite)

**POL SCI 31 Fundamentals of Litigation 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 SCI 32 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 Shephardizing 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 Spring. (No prerequisite)

**POL SCI 33 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 Spring. (No prerequisite)

**POL SCI 34 Family Law for Paralegals** 3.0 Units
This course examines family law rules and procedures and the role of the paralegal in a family law practice. The student will become familiar with family law concepts including marital contracts, annulment, separation, dissolution, child custody and support, alimony, property divisions, adoption and tax consequences of family law procedures. Students will also become acquainted with current problems in family law including the demise of marriage, homosexual marriages and adoptions and surrogate motherhood. Three lecture hours per week. CSU. Offered Fall. (No prerequisite)

**POL SCI 35 Tort Law for Paralegals** 3.0 Units
This course introduces the paralegal to the world of tort law; takes them through the basic concepts that are the foundation of all tort cases (duty, breach of duty, negligence or willfulness, proximate cause, foreseeability and damages); presents the categories of tort litigation and finally covers the privileges and immunities that will defeat a tort lawsuit. Three lecture hours per week. CSU. Offered Spring. (No prerequisite)

**POL SCI 50 United States Government** 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. CSU. UC. Offered Fall, Spring, Summer. (No prerequisite. Grade option)

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**PSYCHOLOGY**

**PSYCH 1A Introductory Psychology (CAN PSY 2)** 3.0 Units
This course provides instruction in the nature of human behavior and a consideration of theories and principles pertaining to the topics of research design and experimentation, perception, emotions and motivation, personality, social psychology, psychopathology, human development, learning, cognition and memory. Includes essential features of the biological and neurological basis of behavior. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite. Eligibility for ENGL 1A recommended)

**PSYCH 1B Introduction To Experimental Psychology** 3.0 Units
The psychology experiment, critiques of published research, basic statistical procedures. Each student conducts and reports several experiments. Three lecture hours per week. CSU, UC. (No prerequisite)

**PSYCH 3 Personal and Social Adjustment** 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)

**PSYCH 4 Social Psychology** 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: PSYCH 1A)

**PSYCH 5 Personal and Career Success** 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. Three lecture hours per week. CSU. (No prerequisite)
PSYCH 8 Identifying and Helping Survivors of Dysfunctional Families 3.0 Units
This course explores the symptoms, theories, and dynamics of family dysfunction. Family dysfunction contributes to drug addiction, alcoholism, depression, promiscuity, unfulfilling relationships, co-dependency, family violence, stress disorders, and other psychopathologies. Theories and strategies of intervention and recovery for victims are presented emphasizing the breaking of destructive patterns and promotion of wellness. Six lecture hours per week for nine weeks. CSU. Offered Fall, Spring. (No prerequisite)

PSYCH 10 Developmental Psychology 3.0 Units
This course includes the study of the theories, methods, and research findings regarding biosocial, cognitive, and psychosocial development of the individual from conception through adulthood, including death, dying, and bereavement. Three lecture hours per week. CSU, UC (UC credit limitation). Offered Fall, Spring, Summer. (No prerequisite. Eligibility for English 1A and satisfactory completion of Psychology 1A recommended.)

PSYCH 11 Introduction To Child Psychology 3.0 Units
A study of the physical, intellectual, emotional, and social development of the child extending from the prenatal period through adolescence. Three lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite)

PSYCH 12 Module In Adult Psychology 1.0 Unit
Development of the individual from young adulthood through the end of life. Development is examined from physical, cognitive and psychosocial perspectives. Topics covered include interaction of these three areas of development in each phase of adulthood including death, dying, and bereavement. This course is designed for nursing students who require adult development study in addition to child and adolescent study done in Child Psychology. Six lecture hours per week for three weeks. CSU. (No prerequisite)

PSYCH 13 Abnormal Psychology 3.0 Units
A study of the dynamics and prevention of abnormal behavior, including neuroses, psychoses, character disorders, psychosomatic reactions, alcoholism, organic brain syndromes, and other abnormal personality patterns. Three lecture hours per week. CSU, UC. (Prerequisite: PSYCH 1A. Grade option)

PSYCH 16 Adolescent Psychology 3.0 Units
A study of physical, psychological, and social development during adolescence. Three lecture hours per week. CSU, UC (UC credit limitation). (No prerequisite)

PSYCH 21 Human Intimacy 3.0 Units
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. (No prerequisite. Grade option)

PSYCH 25 Introduction To Counseling 3.0 Units
Principles and practices of counseling will be the primary focus. A systematic consideration of the basic theories and skills essential for effective counseling and psychotherapy. Three lecture hours per week. CSU. (No prerequisite)

RELIGIOUS STUDIES

REL STS 1 Introduction To Religious Studies 3.0 Units
Factual introduction to the primary forms of religion. Religious acts, communities, experience, language, rites, symbols, myths, and magic. Material drawn from all religions is interpreted by means of historical, social, scientific, and philosophical methods. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

REL STS 5A Introduction To The Old Testament 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 1A recommended)
REL STS 5B  Introduction To The New Testament 3.0 Units
Survey of the history and literary activity surrounding the early church. The course will provide an analysis of the New Testament books from literary, historical, and sociological perspectives. Some comparisons will be made with noncanonical writings of the period. Three lecture hours per week. CSU, UC. Offered Fall. (No prerequisite. ENGL 1A recommended)

REL STS 10  World Religions 3.0 Units
Formerly REL STS 10A and 10B.
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. (No prerequisite. ENGL 1A recommended)

REL STS 15  Religion In America 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. Offered Fall, Spring. (No prerequisite. Eligibility for ENGL 1A recommended)

REL STS 28  Special Topics
See Special Topics listing (Variable units).

REL STS 29  Independent Study
See Independent Study listing (1-3 units).

RESPIRATORY THERAPY

RSP THY 30  Introduction to Respiratory Therapy 2.0 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, infection control, and basic cardio-pulmonary 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 10, BIO 10 and formal admission to the Respiratory Therapy Program)

RSP THY 31  Orientation To Basic Fundamentals Of Respiratory Therapy 10.0 Units
Survey of respiratory therapy as a paramedical 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: RT 30)

RSP THY 32  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 and pharmacological care 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: RT 31 with a grade of “C” or better)

RSP THY 33  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, pulmonary function testing, 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: RT 39, ANAT 1, PHYSIO 1, with a grade of “C” or better)

RSP THY 34  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, NALS, 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: RT 33 and Microbiology 1 with a grade of “C” or better)

RSP THY 38  Cooperative Education
See Cooperative Education listing (1-8 units).

RSP THY 39  Introduction To Continuous Mechanical Ventilatory Support 1.0 Unit
This course introduces the principles of mechanical ventilation, allows hands-on experience with current ventilators, and reinforces therapeutic care. Three lecture, nine laboratory hours per week for three weeks. Offered Summer. (Prerequisite: Completion of RT 32 with a “C” or better) This course may be taken two times.
**RES MGT 51** Nutrition 1A 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 school programs, hospitals, and care centers or those acquiring degrees in allied health, child development, or restaurant management, as well as interested homemakers. It is a certificated course through the National Restaurant Association's Educational Foundation PRO Management Development Program which is nationally recognized throughout the food service industry. Selected nutrition topics include personalized and vegetarian nutrition, menu planning, and marketing options, chemistry of nutrition, as well as specific personal health issues. (No prerequisite). See cross listing for CHEM 51. This course may be taken two times.

**RES MGT 75** Creative Cuisine Series: Understanding Fish and Shellfish 2.0 Units
This course will provide the student with knowledge, training, and skills involved in the principles of processing, cooking, and preparing various fish and seafood species. Two lecture hours per week and one eight hour laboratory session. Offered Summer. (No prerequisite) This course may be taken two times.

**RES MGT 76** Creative Cuisine Series: Understanding Meats and Poultry 2.0 Units
This course will provide the student with knowledge, training, and skills involved in the principles of processing, cooking, 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.

**RES MGT 80** Off-Premise Catering 2.0 Units
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 paperwork related to catering. Two lecture hours per week and a total of twelve laboratory hours. Offered Summer. (No prerequisite)

**RES MGT 81** Food Service Training- Prep/Line Cook 3.0 Units
This course will provide the student with basic and essential training as a prep/line cook. This training includes understanding culinary terminology, proper use of kitchen equipment and hand tools and practical training experience. Four lecture, six laboratory hours per week for nine weeks. (No prerequisite)

**RES MGT 82** Food Service Training-Waiter/Waitress 3.0 Units
This course will provide the student with basic and essential training as a waiter/waitress. Students will obtain an understanding of the interpersonal 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)

**RES MGT 83** Kitchen/Dining Room Training 6.0 Units
Students will learn the kitchen and dining room positions in a food service operation. A practical 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: RES MGT 81, 82, 86, 87.)
RES MGT 84  Kitchen/Dining Room 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: RES MGT 83.)

RES MGT 85  Advanced Restaurant 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: RES MGT 84.)

RES MGT 86  Applied Food Service Sanitation  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.)

RES MGT 87  Principles of Professional Cooking  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.)

RES MGT 88  Management By Menu  3.0 Units
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.)

RES MGT 89  Purchasing For Food Service 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.)

RES MGT 90  Effective Food Service Marketing  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.)

RES MGT 91  Controlling Costs in Food Service 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.)

RES MGT 92  Legal Aspects of Food Service Management  3.0 Units
This course will provide the student a broad overview of the legal components of food service management. Basic components of hospitality law, regulations and civil rights, food service liability, safety, security, contracts and business law are discussed. Three lecture hours per week. (No prerequisite.)

RES MGT 93  Supervision in the Hospitality Industry  3.0 Units
This course will provide the student with a basic knowledge of supervision in the hospitality industry. The supervisor as a manager and leader will be explored. All facets of supervision as it applies to restaurant management will be discussed including communication, recruiting, training, evaluating and disciplining. Three lecture hours per week. (No prerequisite.)

RES MGT 101  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.

RES MGT 102  Foodservice Training: Prep/Line Cook  4.5 Units
This course will provide the student with the basic and essential training as a prep/line cook. This training includes understanding culinary terminology, proper use of kitchen equipment and hand tools, as well as practical experience. This course will not apply to the Associate Degree. Four lecture, twenty-six laboratory hours per week for six weeks. (No prerequisite. Credit/ No Credit) This course may be taken three times.

RES MGT 103  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.

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RES MGT 104 Foodservice Training: Busser 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.

RES MGT 105 Foodservice Training: Cashier 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.

RES MGT 106 Foodservice Training: Dishwasher 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.

RES MGT 107 Bakery and Pastry Training 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.

RES MGT 108 Catering Training 4.5 Units
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.

SOC 1 Introduction To Sociology (CAN SOC 2) 3.0 Units
A survey of the various characteristics of social life, the process of social interaction and the tools of sociological investigation. Emphasis on culture, socialization, and basic institutions. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite)

SOC 2 American Social Problems (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 3 Marriage and Family Life (CAN H EC 12) 3.0 Units
Courtship, choosing a mate, the engagement, factors in marital adjustment, parenthood, and related topics. Three lecture hours per week. CSU. (No prerequisite)

SOC 28 Special Topics
See Special Topics listing (Variable units).

SOC 29 Independent Study
See Independent Study listing (1-3 units).

SOC 38 Cooperative Education
See Cooperative Education listing (1-8 units).

SPANISH

SPAN 1 Elementary Spanish (CAN SPAN 2) 5.0 Units
An introductory course to the Spanish language and the cultures of its speakers. The purpose of Spanish 1 is to facilitate the practical application of the language in everyday oral and written communication at the novice level. Since the focus will be on basic communication skills, the class will be conducted in Spanish as much as possible. While becoming familiar with the Spanish speaking world, students will learn structures that will enable them to function in Spanish in everyday contexts. Five lecture hours per week. CSU, UC. (No prerequisite)

SPAN 2 Elementary Spanish (CAN SPAN 4) 5.0 Units
Further study of the Spanish language and the cultures of its speakers. The purpose of Spanish 2 is to facilitate the practical application of the language in everyday oral and written communication at the novice level. Since the focus will be on basic communication skills, the class will be conducted in Spanish as much as possible. While becoming familiar with the Spanish speaking world, students will learn structures that will enable them to function in Spanish in everyday contexts. Five lecture hours per week. CSU, UC. (Prerequisite: Completion of Spanish 1 or one year of high school Spanish)
SPAN 3 Intermediate Spanish (CAN SPAN 8) 3.0 Units
A comprehensive review of the basic grammatical structure of Spanish, vocabulary building, development of conversation and composition skills, reading of literary and social interest. Three lecture hours per week. CSU, UC. (Prerequisite: Completion of Spanish 2 or two years of high school Spanish)

SPAN 4 Intermediate Spanish (CAN SPAN 2) 3.0 Units
A continuation of a comprehensive review of the basic grammatical structure of Spanish, vocabulary building, development of conversation and composition skills, reading of literary and social interest. Three lecture hours per week. CSU, UC. (Prerequisite: Completion of Spanish 3 or three years of high school Spanish)

SPAN 10 Spanish for Spanish Speakers 3.0 Units
Designed to fulfill the particular needs of bilingual students with special emphasis on the grammar of the language and the development of writing, reading and speaking. Conducted in Spanish. Three lecture hours per week. CSU (No prerequisite: Recommended: Ability to speak Spanish.)

SPAN 25 Conversational Spanish 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.

SPAN 28 Special Topics
See Special Topics Listing (Variable units).

SPAN 29 Independent Study
See Independent Study Listing (1-3 units).

SPAN 30 Spanish for Healthcare Professionals 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 35 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 on topics related to business and finance. Course is conducted mainly in Spanish. Three lecture hours per week. CSU. (No prerequisite)

SPECIAL TOPICS

SPECIAL TOPICS 28-48-98 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

SPEECH 5 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)

SPEECH 6 Human Communication (CAN SPCH 8) 3.0 Units
A course which examines human communication theory and principles across a variety of contexts. The course emphasizes analysis of communication variables as well as skill development and application. Three lecture hours per week. CSU, UC (UC credit limitation), Offered Fall, Spring, Summer. (No prerequisite)

SPEECH 7 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 the variables and the process of communication as they affect the interaction of their families and to develop insight that will make it possible to apply this knowledge. Three lecture hours per week. CSU, UC (UC credit limitation) Offered Fall, Spring, Summer. (No prerequisite)

SPEECH 8 Group Discussion (CAN SPCH 10) 3.0 Units
Practical application of the processes involved in group discussion with an emphasis on problem solving and decision making. Attention to structured and unstructured situations. Principles applicable to groups found in schools, businesses, professions, and the family. Development of interpersonal skills for thought participation in a democratic society. Three lecture hours per week. CSU, UC (UC credit limitation), Offered Fall, Spring. (No prerequisite)
THEATRE ARTS

TA 1 Introduction to Theatre (CAN DRAM 18) 3.0 Units
An introductory course of the history, the performers, the purpose, and the perspective of theatre. Students will be introduced to the basic forms of theatre and disciplines involved in producing a play. Emphasis is on defining and experiencing the role of theatre in society. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

TA 2 History of the Theatre 3.0 Units
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 3 Oral Interpretation of Literature 3.0 Units
Understanding and practicing the skills of reading literature aloud, stressing the acquisition of vocal control skills for emphatic reading and the communication of the literary interpretation to an audience. Selections from the major forms of literature: prose, poetry, and drama. Improvement in vocal control skills and a wider appreciation of literature. Three lecture hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite)

TA 4 Beginning Acting (CAN DRAM 8) 3.0 Units
This course is designed to exercise the separate parts of the composite art of acting which include thought, emotion, and specific movement and vocal techniques. Emphasis is placed on pantomime and exercises culminating in scene work. The ultimate goal is to develop a firm foundation in basic acting techniques. Three lecture hours per week. CSU, UC. Offered Fall, Spring. (No prerequisite)

TA 5 Intermediate Acting 3.0 Units
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 6 Rehearsal and Performance Studio for Young Audiences 1.0 Unit
This course will provide study and laboratory explanation in all aspects of play production for children’s audiences wherein the actor develops his/her acting capabilities, skills, and discipline. The audition, preparation, and presentational phases of the acting process will be explored under the supervision and guidance of a faculty director. Productions will be presented for public performance. Enrollment is for the duration of the preparation and presentation phases of production. One lecture, three laboratory hours per week. CSU. (No prerequisite.) This course may be taken four times.
**Rehearsal and Performance Studio**  
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 per unit. CSU, UC. Offered Fall, Spring. (Prerequisite: Qualify for cast at open auditions. TA 6 recommended) This course may be taken four times.

**Principles of Design for Theatre**  
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. (No prerequisite.)

**Technical Stage Production**  
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.

**Stage Make-up**  
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.

**Stagecraft**  
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.

**Authors of the Theatre**  
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 16. This course may be taken two times.

**Technical Theatre I: Lighting and Sound**  
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 15 is recommended to familiarize students with the theatre and its equipment)

**Costuming for the Theatre**  
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. (No prerequisite) This course may be taken four times.

**Beginning Modern Dance**  
Development of basic knowledge and skill in modern dancing, commonly used in theatrical and musical productions. See cross listing for PE 21A. Three laboratory hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite. Grade option) This course may be taken four times.

**Intermediate Modern Dance**  
Development of intermediate knowledge and skill in modern dancing, commonly used in theatrical and musical productions. To include theatrical audition and stage techniques. See cross listing for PE 21B. Three laboratory hours per week. CSU, UC. Offered Fall, Spring, Summer. (Prerequisite TA 21A with a "C" or better. Grade option) This course may be taken four times.

**Beginning Tap**  
Development of basic knowledge and skill in tap dancing, commonly used in musical productions and theater. See cross listing for PE 21 C. Three laboratory hours per week. (No prerequisite. Grade option) This course may be taken four times.

**Intermediate Tap**  
Development of intermediate knowledge of skill in tap dancing, commonly used in musical productions and theater. See cross listing for PE 21 D. Three laboratory hours per week. (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.

**Beginning Jazz Dance**  
Development of knowledge and skill jazz dancing, commonly used in musical productions as well as social occasions. See cross listing for PE 21M. Three laboratory hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite) This course may be taken four times.

**Intermediate Jazz Dance**  
Development of intermediate knowledge and skill in jazz dancing commonly used in musical productions as well as social occasions. To include theatrical auditions and stage techniques. See cross listing for PE 21N. Three laboratory hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite. Grade option) This course may be taken four times.
TA 21Q  Beginning Ballet  1.0 Unit
Development of basic knowledge and skill in ballet, commonly used in theatrical and stage productions. See cross listing for PE 21Q. Three laboratory hours per week. CSU, UC. Offered Fall, Spring, Summer. (No prerequisite. Grade option) This course may be taken four times.

TA 21R  Intermediate Ballet  1.0 Unit
Development of intermediate knowledge and skill in ballet dancing, commonly used in theatrical and stage productions. To include theatrical audition and stage techniques. See cross listing for PE 21R. Three laboratory hours per week. (Prerequisite: Student may be required to audition and be approved by instructor for entrance to class. Grade option) This course may be taken four times.

TA 25A/B/C  Summer Theatre Workshop 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 25A (acting), TA 25B (production staff), or TA 25C (technical crew). Each component (TA 25A, TA 25B, TA 25C) 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 28  Special Topics
See Special Topics listing (Variable units).

TA 29  Independent Study
See Independent Study listing (1-3 units).

TA 38  Cooperative Education
See Cooperative Education listing (1-8 units).

**WELDING**

WELD 38  Cooperative Education
See Cooperative Education listing (1-8 units).

WELD 50  Introduction to Welding  2.0 Units
Beginning course in arc and oxyacetylene welding which covers safety practices, use of equipment, and oxyacetylene cutting. Two lecture, six hours laboratory hours per week. 2nd and 4th Terms. (No prerequisite)

WELD 51  Oxyacetylene Welding, Cutting, and Brazing  3.0 Units
Develops entry-level skills for the welder in gas welding, brazing welding, and cutting. Two lecture, four laboratory hours per week. Offered Fall, Spring. (No prerequisite)

WELD 53  Shielded Metal Arc Welding - Advanced  4.0 Units
Develops advanced shielded metal arc welding skills. Specifically develops skills to produce high quality large multipass fillet welds and single-v-groove welds. Two lecture, six laboratory hours per week. Offered Fall, Spring. (No prerequisite)

WELD 54  Preparation for Welder Certification  1.0 Unit
This course prepares the welder to take and pass the Los Angeles Department of Building and Safety written examination required for the L.A. City welding license. In addition, the performance requirements necessary to pass welder qualification tests under different codes are covered. Two lecture hours per week for nine weeks. (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 weld qualifications 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 design to the welder and fitter to achieve design objectives. One lecture hour per week. Offered Fall. (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, or gas metal arc welding, or pipe welding. Fifty-one hours of laboratory experience qualifies for 1 unit of credit. Offered Fall, Spring. (No prerequisite)
WELD 70 QC-10 Entry Level Welder Basics 1.5 Units
A course covering basic occupational tasks and related information used in the workplace. Topics covered include basic safety, math, welding symbols, reading welding drawings, base metal preparation, and weld quality. One and one-half lecture hours per week. (No prerequisite)

WELD 71 QC-10 Shielded Metal Arc Welding 4.0 Units
A shielded metal arc welding course covering safety, welding theory, weldability of metals, welding terms and definitions and welder performance on all position fillet and groove welds. Four lecture hours per week. (No prerequisite)

WELD 72 QC-10 Gas Metal Arc Welding 3.0 Units
A course in gas metal arc welding covering safety, welding theory, weldability, terms and definitions, and welder performance on all position fillet and groove welds using short circuit transfer and flat, horizontal fillet and flat groove welds using spray transfer. Three lecture hours per week. (No prerequisite)

WELD 73 QC-10 Gas Tungsten Arc Welding 3.0 Units
A course in gas tungsten arc welding covering safety, welding theory, weldability of metals, welding terms and definitions, and welding performance of plain carbon steel, stainless steel, and aluminum. Three lecture hours per week. (No prerequisite)

WELD 74 QC-10 Flux Cored Arc Welding 3.0 Units
A course in flux cored arc welding covering safety, welding theory, weldability of metals, welding terms and definitions, and welder performance on all position fillet and groove welds. Three lecture hours per week. (No prerequisite)

WELD 75 QC-10 Oxyfuel Gas Cutting 1.0 Unit
A course in oxyfuel cutting of plain carbon steel covering safety, cutting theory, cutability of metals, cutting terms and definitions and cutter performance. Two individualized instruction hours per week. (No prerequisite)

WELD 76 QC-10 Plasma Arc Cutting 0.5 Unit
A course in plasma arc cutting covering safety, cutting theory, cutability of metals, cutting terms and definitions and cutter performance on plain carbon steel, stainless steel and aluminum. One individualized instruction hour per week. (No prerequisite)

WELD 77 QC-10 Air Carbon Arc Cutting 0.5 Unit
A course in air carbon arc cutting covering safety, cutting principles, cutability of metals, cutting terms and definitions, and cutter performance. One individualized instruction hour per week. (No prerequisite)

WELD 98 Special Topics
See Special Topics listing (Variable units).

WELD 99 Independent Study
See Independent Study listing (1-3 units).
X.
VICTOR VALLEY COLLEGE
FACULTY AND STAFF

“Education is a progressive discovery of our own ignorance.”
-Will Durant
XI.
VICTOR VALLEY COLLEGE
FACULTY AND STAFF

FULL TIME ACADEMIC STAFF

Adell, Tim (1999)
Instructor, English
B. A., North Park College
M.A., M F A., McNeese State University

Akins, John (1991)
Associate Professor, Librarian
B.A., California State University, Fullerton
M.L S., University of Hawaii at Manoa

Alcorn, William (1969)
Professor Emeritus
B.A., Park College
M.S., University of Omaha

Allan, Peter (1997)
Instructor, Business Administration
B.A., M.B.A., California State University, San Bernardino

Allen, Cynthia (1975)
Counselor Emeritus
Disabled Student Programs and Services
B.S., M.Ed., University of Illinois, Champaign-Urbana

Armstrong, George (1999)
Instructor, CalWORKS
B.A., Rutgers University
M.A., Chapman University

Ashton-Beazie, Janet (1978)
Professor, Librarian
B.S.Ed., M.S., University of North Dakota

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)
Instructor, 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)
Associate Professor, English
B.A., University of California, Santa Barbara
M.A., San Francisco State University

Blanchard, Debra (1992)
Associate Professor, Physical Education/Basketball Coach
B.A., California State University, Northridge
M.S., Arizona State University

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

Professor, Geology/Astronomy
B.S., San Diego State University
M.S., University of Montana

Buckles, Duane (1985)
Professor, Restaurant Management
A.A.S., Paul Smiths College of Arts and Sciences, New York

Burg, Edward (1999)
Instructor, Computer Information Systems
B.S., California State University, Fullerton

Cass, Reiji (1990)
Professor, Computer Information Systems
B.S., Shanghai Electronic Engineering College, China
M.S., South Dakota School of Mines and Technology

Instructor, Anthropology
B.A., M.A., California State University, Fullerton

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

Chimalikis, 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

Collins, Deirdre (1998)
Instructor, Mathematics
B.A., Bradley University
M.S., University of Illinois, Chicago

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

Cuna, Starlie (1998)  
Instructor, 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)  
Instructor, History  
B.A., M.A., University of California, Riverside

DeLong, Carol (1992)  
Associate 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

Dinneen, Dolores (1990)  
Professor, Learning Resources  
B.A., Marylhurst College  
M.A., Portland State University  
Ph.D., Washington State University

Doan, Mary Lynn (1992)  
Associate Professor, Mathematics  
B.A., California State University, San Bernardino  
M.S., University of California, Riverside

Doolittle, Elizabeth (1997)  
Assistant Professor, Mathematics  
B.S, California Lutheran University  
M.A., University of Arizona

Doyle, John (1990)  
Professor, Allied Health/Paramedics  
A.S, Victor Valley College  
B.S., University of LaVerne

Droegge, Kristin (1997)  
Instructor, Child Development  
B.A., Duke University  
M.A., Ph.D., University of California, Los Angeles

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

Ekhund, 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)  
Instructor, History  
B.A., M.A, Youngstown State University

Embromen, Nord (1989)  
Professor, Construction Technology/Drafting  
B.A., California State University, Long Beach

Ferraro, Prudence (2000)  
Instructor, Nursing  
B.S., M.S., University of Phoenix

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

Fields, Ron (1992)  
Associate Professor, Administration of Justice  
B.A., M.A., California State University, Fullerton

Filadelfia, Donna (1994)  
Assistant Professor, Counseling  
B.A., M.A., California State University, San Bernardino

Fitch, Polly (1961)  
Professor Emeritus, Theatre Arts/Speech  
B.A., University of Idaho  
A.M , Cornell University  
Ph D., Stanford University

Flome, Robert (1979)  
Professor, Respiratory Therapy  
B.A., San Fernando Valley State, Northridge  
M.A., M.Ed, Chapman University

Foster, John Franklin (1992)  
Associate Professor, Art/Photography  
B.F.A, Memphis College of Art  
M.F.A , California Institute of the Arts

France, Cuauhtemoc (1990)  
Professor, Spanish  
B A, M.A., California State University, Fresno

Freeman, Fay (1990)  
Director, Grant Development and Compliance  
B.A., California State University, Long Beach  
M.A , California State College, Fullerton

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

2000-2001 Victor Valley College Catalog
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)
Instructor, EOPS Counseling
B A, M S., California State University, San Bernardino

Glebe, Andrea (1997)
Instructor, English
B.A., B A, Washington State University
M A, Colorado State University

Golder, Patricia (1997)
Instructor, 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

Green, Nancy (1977)
Professor, Nursing
B S , M S , California State University, Los Angeles

Green, Patricia (1990)
Director of Nursing
B S, University of Oregon
M S, University of Michigan
M A, San Diego State University

Grover, Christopher (1993)
Associate Professor, Real Estate
B A., California State University, San Bernardino
M B A , Heriot-Watt University, Edinburgh

Halisky, Nicholas (1972)
Superintendent/President
B A., M A, M.Ed, Whittier College

Harvey, Lisa (1999)
Instructor, Biological Sciences
B A., Point Loma College
MS, PhD., Loma Linda University

Assistant Professor, Theatre Arts/Speech
B.F.A., M A., Marshall University

Hinson, Dolores (1999)
Instructor, 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

Ingle, Marc (1989)
Professor, Computer Information Systems
B A., Pasadena College
M.P.H., Loma Linda 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
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M A., Chapman College

James, Pamela (1997)
Instructor, Counseling
B.S., California State University, Fullerton
M.A., California State University, San Bernardino

Keil, Margaret (1996)
Assistant 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)
Professor, Chemistry
B.S., University of Rochester
M S., University of California, Los Angeles

Kirkham, Robert (1979)
Professor, Physics
B.A., University of California, San Diego
M.S., San Diego State University

Kohlschreiber, Molly (1976)
Professor Emeritus, Art
B.A., M A., Long Beach State College

Krimper, Ronald (1999)
Vice President, Student Learning
B.A., Queens College (City University of New York)
M A., Syracuse University

Kroencke, John (1971)
Professor Emeritus, Business Administration
A.B., M.A., San Jose State College

Kumlin, Allan (1979)
Professor, Cooperative Education
B.V.E., M.A., California State University, San Bernardino

Lackey, Jennie A. (1967)
Professor Emeritus, Psychology
B.A., University of Minnesota
M.Ed., University of Montana, Missoula

LaFontaine, Terry (1990)
Professor, Computer Integrated Design & Graphics
B.S., California State Polytechnic University,
San Luis Obispo

Lewallen, Willard (1999)
Vice President, Student Services
B.S., California State Polytechnic University, Pomona
M.S., M.S., Ed., Purdue University
Ph.D., University of California, Los Angeles

Longshore, David (1973)
Professor, Mathematics
B A., Long Beach State College
M S., University of Southern California
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lyman, Leo (1984)</td>
<td>Professor, History</td>
<td>B.S., Brigham Young University, M.S., University of Utah</td>
</tr>
<tr>
<td>Mackay, Pamela (1992)</td>
<td>Associate Professor, Biological Sciences</td>
<td>B.S., B.S., M.S., California State Polytechnic University, Pomona</td>
</tr>
<tr>
<td>Manji, Kimi (1990)</td>
<td>Associate Professor, Music</td>
<td>B.A., Humboldt State University, Califomia, M.M., Kansas State University</td>
</tr>
<tr>
<td>Mathews, David (1990)</td>
<td>Professor, Fire Technology</td>
<td>B.S., California State University, Los Angeles</td>
</tr>
<tr>
<td>Mayer, Eric (1989)</td>
<td>Professor, History</td>
<td>B.A., M.A., Ph.D., University of California, San Diego</td>
</tr>
<tr>
<td>McCracken, Michael (2000)</td>
<td>Instructor, Counseling</td>
<td>B.A., University of California, Riverside, M.A., California State University, San Bernardino</td>
</tr>
<tr>
<td>McDevitt, Steven (1976)</td>
<td>Professor, Speech/Social Science</td>
<td>B.A., University of Southern California, M.A., California State University, Fullerton</td>
</tr>
<tr>
<td>Mense, Gary (1983)</td>
<td>Professor, Industrial Arts/Welding</td>
<td>B.A., M.A., California State University, Long Beach</td>
</tr>
<tr>
<td>Miller, David J. (1990)</td>
<td>Professor, Counseling/Psychology</td>
<td>B.A., University of California, Berkeley, M.S., University of Wisconsin, Madison</td>
</tr>
<tr>
<td>Miller, Thomas (1976)</td>
<td>Professor, Music</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>Professor, Speech/Theatre Arts</td>
<td>B.A., San Jose State College, California, M.A., California State University, San Bernardino</td>
</tr>
<tr>
<td>Mirci-Smith, Theresa (1990)</td>
<td>Professor, Speech</td>
<td>B.A., California State University, Sacramento, M.A., California State University, Fullerton</td>
</tr>
<tr>
<td>Moon, Oscar Odell (1990)</td>
<td>Professor, Business Administration</td>
<td>B.S., California State Polytechnic University, Pomona, J.D., Western State University, Fullerton</td>
</tr>
<tr>
<td>Moser, David (1999)</td>
<td>Instructor, Mathematics</td>
<td>B.A., M.A., California State University, Los Angeles</td>
</tr>
<tr>
<td>Nunez-Loucks, Peggy (1999)</td>
<td>Instructor, EOPS Counseling</td>
<td>B.A., University of California, Santa Barbara, M.A., University of Denver</td>
</tr>
<tr>
<td>Paine, John (1998)</td>
<td>Instructor, Physical Education</td>
<td>B.S., California State Polytechnic University, Pomona, M.Ed., Azusa Pacific University</td>
</tr>
<tr>
<td>Palmer, Rebecca (1989)</td>
<td>Professor, Business Education Technology</td>
<td>B.V.E., California State University, San Bernadino</td>
</tr>
<tr>
<td>Pascual, Florfina (1984)</td>
<td>Professor, Nursing</td>
<td>B.S.N., Far Eastern University, Philippines, M.S.N., University of California, Los Angeles, M.Ed., Loyola University of Chicago</td>
</tr>
<tr>
<td>Penos, Jose (1998)</td>
<td>Instructor, Restaurant Management</td>
<td>B.A., University of California, Los Angeles, B.V.E., California State University, Long Beach</td>
</tr>
<tr>
<td>Peterson, Shirley (1990)</td>
<td>Professor, Counseling</td>
<td>B.S., University of Montana, M.S., Oregon State University, M.A., Ph.D., Fielding Institute</td>
</tr>
<tr>
<td>Previte, James (1981)</td>
<td>Professor, Psychology</td>
<td>B.S., University of California, Davis, M.A., Loyola Marymount University</td>
</tr>
<tr>
<td>Price, Cliva (1968)</td>
<td>Professor Emeritus, Business Administration</td>
<td>B.S., Oklahoma State University, M.A., Arizona State College</td>
</tr>
<tr>
<td>Pugh, Donald (1974)</td>
<td>Counselor Emeritus</td>
<td>B.A., M.A., San Jose State College, Ph.D., University of Idaho</td>
</tr>
<tr>
<td>Rank, Janice (1982)</td>
<td>Professor, Psychology/English</td>
<td>A.B., Northwest Nazarene College, M.S., California State University, Hayward</td>
</tr>
<tr>
<td>Reardon, Cherie (1999)</td>
<td>Instructor, Mathematics</td>
<td>B.A., M.A., California State University, San Bernadino</td>
</tr>
<tr>
<td>Redona, Jeff (1999)</td>
<td>Instructor, Mathematics</td>
<td>B.A., M.A., California State University, San Bernadino</td>
</tr>
</tbody>
</table>
Reynolds, Joseph (1999)  
Instructor, DSPS/LD/ACT Counselor/Coordinator  
B.S., Florida State University  
M.H.S., PhD, University of Florida

Ripley, Richard (1997)  
Instructor, 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

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., Northrop University

Rude, John (1997)  
Instructor, Speech/Theatre Arts  
B S., Bemidji State College  
M.A., Ball State University  
Ph D, University of Missouri

Rudoff, Alex (1972)  
Professor Emeritus, History  
A B, M A, Ed.D, University of Southern California

Ruiz, Maria (1999)  
Instructor, 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

Sabger, Susan (1999)  
Instructor, CalWORKS Counseling  
B.A., Salem College  
M S, Ed., Old Dominion 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

Smith, Carl (1994)  
Director of EOPS  
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Instructor, Biological Sciences  
B.A., California State University, Stanislaus  
M.A., Sonoma State University

Solis, Judy (1998)  
Instructor, English  
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Stewart, Linda (1990)  
Professor, Counseling  
B.A., University of South Carolina at Columbia  
M Ed, Brigham Young University

Sweet, John (1996)  
Assistant Professor, Automotive

Sypkens, Mary (1995)  
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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

Thibeault, Sally (1999)  
Instructor, 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

Tomlin, Karen (1987)  
Professor, English  
B.A., M.A., University of California, Santa Barbara

Vegna, Paul (1970)  
Professor, Mathematics  
B S., Illinois State University  
M.S, Bradley University

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Professor, Physical Education  
B.S., California State University, Los Angeles  
M.A. Azusa Pacific University

Vila, Martha (1998)  
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M.A., University of Nevada, Las Vegas

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Instructor, 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  
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White, Christa (1998)  
Instructor, Physical Education  
B S, Texas Tech University  
M.Ed., Azusa Pacific University

Williams, James (2000)  
Vice President, Administrative Services  
D Ed, University of LaVerne  
M.S, Golden Gate University  
B.S., California State University, Long Beach
Wilson, James (1999)  
Instructor, English  
B.A., University of Colorado  
M.F.A., Wichita State University  
M.A., Kansas State University

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Dean of Instruction. Academic Services  
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Assistant Professor, Business Administration  
B.S., California State Polytechnic University, Pomona  
M.B.A., University of Phoenix

CHILD DEVELOPMENT CENTER

De La Cruz, Diane (1988)  
Site Supervisor  
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McGinn-Bennett, Kathleen (1987)  
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CLASSIFIED STAFF

Agnew, Elisa (1977), EOPS Specialist  
Andrews, Phyllis (1992), Admissions & Records Assistant  
Angulo, Kenneth (1998), Custodian  
Bacigalupi, Bonnie (1988), Bookstore Operations Assistant  
Bandringra, Pearl (1999), Financial Aid Specialist  
Barbosa, Margarita (1995), Administrative Assistant  
Barnett, Patricia (1987), Administrative Secretary I  
Bazurto, Theresa (1999), Office Assistant  
Beale, John (1989), Director of Maintenance & Operations  
Berglund, Sharon (1998), CDC Infant/Toddler Permit Teacher  
Barnor, Gary (1998), Communication Systems Technician  
Browne, Aaron (1993), Book Division Coordinator  
Caldwell, Sherree (1999), Office Assistant  
Camarena, Yvonne (1998), CDC Associate Teacher  
Campbell, Ron (1973-1997), Distinguished Service  
Cambra, Terrie (1997), Instructional Assistant I  
Carlton II, William D (1997), Sergeant, Campus Police and Public Safety  
Carney, Jim (1999), Campus Police/Public Safety Officer  
Carpenter, Sharon (1997), Human Resources Technician  
Casler, Arthur (1997), Lead Grounds Maintenance Worker  
Castleman, Darlene (1978-1998), Distinguished Service  
Cera, Linda (1988), Executive Assistant  
Chapman, Diane (1996), Financial Aid Specialist  
Christensen, M. Tillie (1992), Library Technical Assistant  
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  
Corbin, Rosaline (1999), Custodian  
Cottrell, Mary (1992), Administrative Secretary I  
Cross, Doug (1998), Instructional Assistant III  
Crowley, Kevin (2000), Instructional Assistant III  
Cutler, Leroy (1998), Custodian  
Dance, Tamara (1990), Admissions & Records Assistant  
Dane, Mary (1999), CDC Permit Teacher  
David, Leta (1996), Network Manager  
Davis, Michael (1974), Director, Purchasing and Facility Scheduling  
Degler, Kathleen (1987), Hardware/Software Purchasing Agent  
Derryberry, Donna (1998), Administrative Secretary I  
Dock, Kristenea (1997), Placement Specialist  
Dodson, M. Jeanne (1973), Switchboard Operator/Receptionist  
Dorval, Judi (1999), Citation Specialist  
Drew, Rebecca (1999), Administrative Secretary I  
Duncan, Ronald (1989), CDC Permit Teacher  
Embrey, Vira (1990), Administrative Secretary II  
Erdmann, Karen (1990), CDC Permit Teacher  
Farrand, Kathleen (1990), Human Resources Analyst  
Feddersen, Robert (1997), Learning Center Specialist  
Fennessey, Josephine (1993), Instructional Assistant III  
Finch Jr., William (1984), Maintenance Worker  
Fischer, Betty (1993), Library Technical Assistant  
Fliina, Michael (1997), Custodian  
Fliina, Peter (1997), Custodian  
Forkel, Dale (1993), Custodian  
Ford, Carole, (1999), Instructional Assistant II  
Foster, Sheri Nolan (1985), Coordinator of Payroll and Benefits  
Frost, Gwyn (1999), CDC Infant/Toddler Permit Teacher  
Garcia, Stephen (1989), Assistant Director of Maintenance/Operations  
Gesson, Vicki (1987), Instructional Assistant III  
Gibson, Linda (1999), Human Resources Technician  
Gonzales, Susan (1991), Child Development Center Food Service Specialist  
Green, Ruth (1992), Student Development Center Specialist  
Greene, Mitchell (1996), Network Engineer  
Greulich, Bill (1989), Director of Marketing/Public Information  
Groom, Sharon (1997), Financial Aid Specialist  
Guillet, Andrew (1993), Instructional Network/Computer Maintenance Tech  
Gummo, Patricia (1990), Laboratory Technician  
Halisky, Cathy (1979), Director of Management Information Systems  
Hall, Gwendolyn (1990), Coordinator of Data Processing  
Hannaman, Doug (1999), Maintenance Worker  
Harley, Virginia (1998), Accounting Technician I  
Harriman, Darrell, (1999), Electronics Lab Specialist  
Harrison, Della (1997), Grounds Maintenance Worker  
Herrera, Amy (1998), Athletic Trainer  
Hoppes, Joann (1997), Instructional Assistant I  
Howard, John (1998), Internal Auditor  
Howie, Brian (1997), Maintenance Worker  
Huiner, Beverly (1986), Instructional Assistant /Typesetter  
Hurd, Carol (1998), CDC Infant/Toddler Associate Teacher  
Jacquez, Noreen (1999), Campus Police/Public Safety Officer  
Janisko, Gita (1998), Administrative Secretary I  
Jasso, Evelyn (1998), CDC Associate Teacher  
Jodoin, George (1989), Attendance Accounting Technician  
Johnson, Yvonne (1999), Administrative Secretary II  
Jordan, Jr., Laymon (1997), Maintenance Worker  
Karg, Margaret (1989), C.A.R.E. Specialist  
Kaur, Upesh (2000), CDC Permit Teacher  
Keating, Michael (1997), Sergeant, Campus Police and Public Safety  
King, David (1993), Maintenance Technician  
Kobz, Lois Evans (1982), Director of Human Resources  
Kwan, Michael (1997), Office Assistant  
Laupheur, Joanna (1999), Custodian  
Laveaux, B. Michelle (1997), Instructional Assistant III  
Lexion, April (1986), Administrative Secretary II  
Lougee, Karyl (1986), Director of Printing Services  
Lough, Margie (1972-1998), Distinguished Service  
Manriquez, Veronica (1997), CDC Permit Teacher  
Marsh, Claudia (1973), Laboratory Technician  
Martin, Mary (1987), Administrative Secretary I  
Martinez, Carlos (1997), Custodian  
Mata, Kathy (1998), Accounting Assistant  
McConnehey, Debra (1988), Accounting Technician I  
McGowan, John (1977), Maintenance Locksmith  
McGowan, Suzanne (1985), Maintenance and Operations Clerical Technician  
Medlock, Ron (1987), Student Development Center Assistant  
Melendez, Simon (1982), Grounds Maintenance Worker  
Melendez, Vito (1985), Grounds Maintenance Worker  
Mertens, Donna (1979), Director of Fiscal Services  
Messner, Monty (1996), Warehouse/Delivery Worker

2000-2001 Victor Valley College Catalog
Although every effort has been made to ensure the accuracy of this catalog, it is not to be considered as an irrevocable contract between the student and Victor Valley College. The catalog is published for information purposes only. The college reserves the right to change provisions and descriptions at any time while taking precautions that such changes do not adversely affect enrolled students. These changes may result from the actions of the California Community College Chancellor’s Office and of the California State Legislature involving the rules and regulations pertaining to community colleges. Students are advised to consult the current Schedule of Classes and college counselors for supplementary information.

All tuition and fees are subject to review without notice because of changes in budgetary conditions, state legislation, Board of Governors’ regulations and/or Board of Trustees’ actions.

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XI.
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“If you think education is expensive, try ignorance.”
-Derek Bok
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VVC 2000-2001 ACADEMIC CALENDAR
Summer 2000 four-day work week begins week of 5/22/00 and ends week of 7/31/00

SUMMER SESSION 2000

JUNE
5 Summer Session Begins - 8 weeks
12 Summer Session Begins - 6 weeks
JULY
4 Independence Day Holiday
21 Summer Session Ends - 6 weeks
28 Summer Session Ends - 8 weeks

FALL SEMESTER 2000

AUGUST
11 Fall Flex Day
14 Fall Semester Begins
SEPTEMBER
4 Labor Day Holiday
OCTOBER
13 1st 9-week classes end
16 2nd 9-week classes begin
NOVEMBER
10 Veteran’s Day Holiday
23-26 Thanksgiving Holidays
DECEMBER
11-14 Final Exam Week
14 Fall Semester Ends
21-31 Offices Closed

SPRING SEMESTER 2001

JANUARY
1 New Year’s Day Holiday
15 Martin Luther King, Jr. Holiday
16 Spring Semester Begins
25 Spring Flex Day
FEBRUARY
16 Lincoln Day Holiday
17-18 No Classes
19 President’s Holiday
MARCH
16 1st 9-week classes end
19 2nd 9-week classes begin
APRIL
9-15 Spring Break
13 Good Friday Holiday
16 Classes reconvene
MAY
21-24 Final Exam Week
24 Spring Semester Ends
24 Commencement
28 Memorial Day Holiday

SUMMER SESSION 2001

JUNE
4 Summer Session Begins - 8 weeks
11 Summer Session Begins - 6 weeks
JULY
4 Independence Day Holiday
20 Summer Session Ends - 6 weeks
27 Summer Session Ends - 8 weeks

KEY
First/Last Day of Classes
Faculty Flex Day
Holiday
Campus Closed (must be taken as leave)
School Recess
Classes Reconvene
Commencement